

Issue No. 5

# HP Series 100 Communicator

■ Introducing  
Series 100/  
MicroPlan<sup>SM</sup>

U.S. Edition

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Back issues are available through Authorized HP Personal Computer Dealers, through HP Sales and Service Offices, or directly from HP's Computer Supplies Operation. An index of the available issues is given in the "Ordering Information" section of this issue.

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# Notes From the Editor



## Welcome to Issue #5 of the Series 100 Communicator

Eunice Yan

This magazine presents information about your HP Series 100 computer which we think will interest you: application hints, programming tips, and helpful answers to some common questions. The Software Status Bulletin section is a current list of all known problems with available solution information. The articles span several levels of expertise—ranging from the casual user to the experienced programmer. In addition, we briefly describe new Series 100 products and how they affect you as a Series 100 owner.

### How To Receive the Communicator

There are three ways to obtain copies of the *Series 100 Communicator*:

- A *Communicator* subscription is included as part of the HP 120/125 System Information Service (Product 45530K). This service includes phone-in consulting and appropriate manual updates. To order, call your HP Sales and Service Office—ask for “Computer Products Order Processing.”
- You may subscribe to the *Communicator* alone, by ordering the HP 45530N Series 100 Software Notification Service from your local HP office. Ask for “Computer Products Order Processing.”
- Individual copies, including back issues, are available through your dealer or from HP. See the “Ordering Information” section in this issue for details.

### How to Become 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  
978 E. Arques Avenue  
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 world-wide Series 100 user community through the *Series 100 Communicator*.

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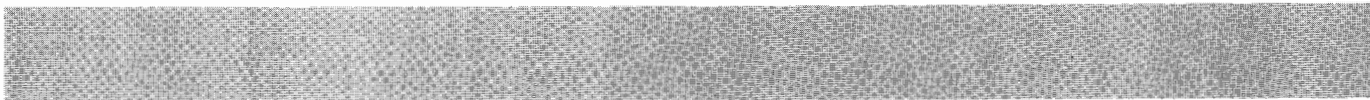
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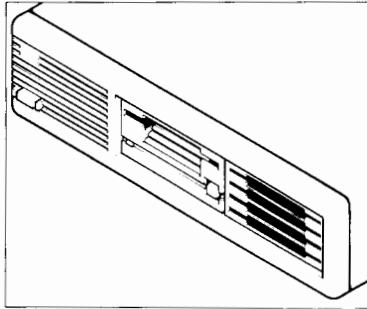
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## Single Disc Configuration Supported on Series 100

Mary Wolf



With the latest release of the CP/M Operating System (version A.01.40), Hewlett-Packard now supports a single disc configuration on the HP 120 and HP 125. This means that the minimum system on Operating System version A.01.40 and later is now a system processor with an HP 9121S disc drive (only this drive is supported).

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### Utilities Supported with a Single Disc

Because of modifications for this release, the INSTALL and COPY utilities can now be used with only one single flexible disc drive. Both programs prompt you to switch discs in the drive when they are needed. In addition, COPY has been enhanced to provide FILE COPY; this means that COPY will copy a single file or group of files to any other disc on the system.

The FORMAT utility works as it always has, and will format a disc in drive A.

---

### Applications Supported with a Single Disc

VisiCalc<sup>®</sup>, Word, Link, DSN/Link, Graphics, BASIC, WordStar<sup>®</sup>, MailMerge<sup>™</sup>, and Milestone<sup>™</sup> are supported on a single disc system.

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### How to Obtain Operating System Version A.01.40

Refer to the "Ordering Information" section of this issue for ordering instructions on Operating System and Utility Update Kits.

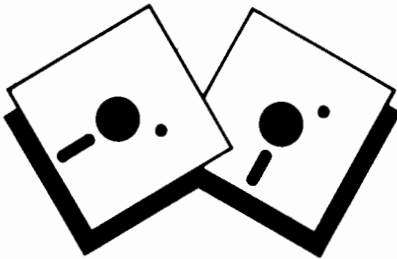


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## Hard Disc Backup Now Available

Mary Wolf

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If you have a fixed disc, you should have the BACKUP utility to make a duplicate or back up copy of your information for safekeeping. Released with Operating System version A.01.20, BACKUP takes a large volume's data and copies it onto flexible discs. The information can be stored normally or compressed to conserve space. In addition, you can copy an individual file (random access or sequential), a group of selected files, or all files on a disc.

If you do not have a fixed disc, you can still use BACKUP. BACKUP works between any two discs with either random access or sequential files on your system, allowing you to reproduce files in either regular or compact form.

---

### How to Use It

BACKUP is shipped on the Utility disc, and must be installed using the Welcome Menu's 'install mode' softkey.

Once BACKUP is installed, it is accessed by pressing a softkey on the Welcome Menu. BACKUP takes over, and asks you which discs you want to copy between. Once you answer, a list of the source files appears on the screen. You press a softkey to highlight the file(s) you need backed up, then tell BACKUP to proceed.

Note: If you back up files in compressed form to save space, you must later run BACKUP to restore the files before you can use them.

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### How to Obtain It

Refer to the "Ordering Information" section of this issue for ordering instructions on Operating System and Utility Upgrade Kits.

## Enhanced Installation Program Available

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Along with the introduction of the HP 120 a new enhanced version of the WELCOME program (version A.02.00) was released. The features of the new program include:

- 'install mode' softkey  
You no longer need to push the CTRL, SHIFT, @ keys in order to install an application or the CTRL, DEL keys to de-install an application. Both of these features are activated through the 'install mode' softkey on the WELCOME menu.
- Compatibility with the former installation files  
The new WELCOME program can be used to install HP applications that you currently have.
- New and easier method for setting up softkeys  
In just a few minutes, you can build an installation file to set up a WELCOME menu softkey for any non-HP application, including one you may have written.

This article explains the structure of an installation file, describes how to create the installation file, and explains some of the error messages that may be encountered.

---

### Installation File Structure

The installation files can be broken down into five different sections. The first four sections must always be present. The last section can be skipped depending on whether there are any files that need to be copied from the master application disc to the work disc.

Section 1: Message line -- up to 80 characters

The first line of the file is used for the message that will be displayed at the top of the screen while the installation is being done.

Section 2: Softkey label — up to 16 characters

This line is used for the label that you want to have displayed on the softkey. The label can be centered by adding spaces to the left of the label. You must fill in the first 8 characters in order to get the second line of the label.

Section 3: Command line

Here is where the WELCOME program is told what program or command to execute when the softkey (section 2) is pushed. This line will contain either a program name or a CP/M command. If it is a program the file type is omitted.

Examples: STAT \*.\* CP/M transient program  
          util125 Utility program

Note: The program name must be typed the same as it appears when you use the STAT command. If the filename shows lower case characters the command line in the install file must be in lower case characters.

Section 4: Two blank lines

If these two lines are left out the installation procedure will not work properly.

Section 5: Filenames and filetypes to be copied to the work disc

All files that need to be copied to the work disc are listed in this section, one filename per line. If the file was created with a filetype, then it must be included. Upper and lower case is significant, so that hidden lower case filenames can be specified.

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## Creating the Installation File

The easiest way to create the installation file is by using any type of word processor that runs on the Series 100 systems. Both Series 100/Word and WordStar/100 can be used to accomplish this task. The only requirement is that the file type must be '.WEL'. The install routine will look at the disc for all files marked with this file type and display them for you so that you can select which one or ones to install or de-install.

If Series 100/Word is used to produce the file, then the '/1' option must be used when the file is saved. For best results when using WordStar/100, open the file as a non-document.

Example of an Installation File:

Section 1: Installing my application

Section 2: MY PROGRAM

Section 3: MYOWN

Section 4: <

<

Section 5: FILE1.FTP  
myprog.COM  
MYOWN.COM

---

## Error Messages

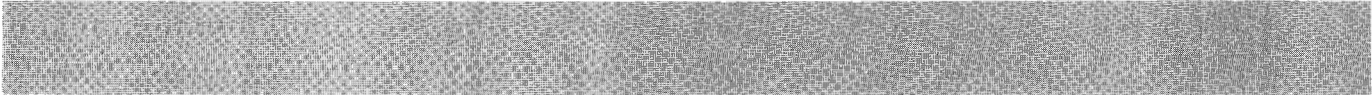
Occasionally, when using the new WELCOME program, you may see two error messages which require some explanation.

The messages are:

"Operation aborted. File open error."

"Operation aborted. Rename error detected."

The cases in which these messages are displayed both concern the number of directory entries that can be on a single disc. The maximum number of directory entries is 128. The first message will be displayed when the installation program finds that there is no more directory space or that the programs to be installed are not on the same disc as the installation file.

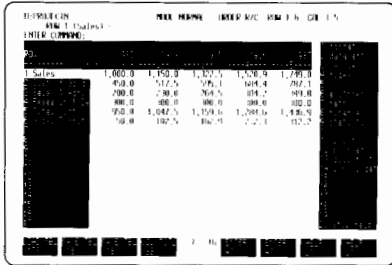


The second message also deals with the directory entries. When the installation is completed, the program attempts to create another copy of the WELCOME.COM file and then purge the original one. The copy is labeled 'WELCOME.\*\*\*'. If there is no room for this file's directory entry the installaton program continues. The program then tries to rename the 'WELCOME.\*\*\*' to 'WELCOME.COM'. Since the file was never created, the rename fails. When you exit the install mode, there will be no welcome screen.

---

**How to Obtain the Enhanced  
WELCOME Program**

Refer to the "Ordering Information" section of this issue for ordering instructions on Operating System and Utility Upgrade Kits.



Do you need more powerful spreadsheet capability? If so, you will be happy to hear that MicroPlan is now available for the Series 100. MicroPlan is an advanced spreadsheet package that has powerful modeling and reporting features.

In addition to MicroPlan, HP also offers the MicroPlan Consolidation Module. Consolidation allows you to bring in data from other MicroPlan tables that are stored on your disc. With consolidation, you are no longer limited by the computer's memory. You can produce large or complex models, such as multi-departmental budgets, by storing each department's budget as a separate table. You can then consolidate those individual tables to produce a summary report.

**What is Microplan?**

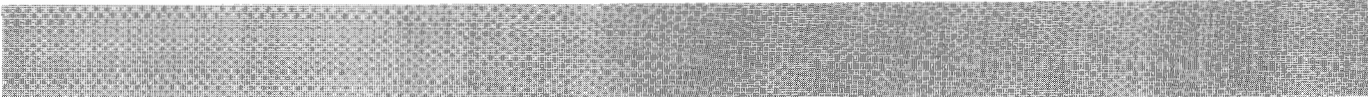
A wide variety of electronic spreadsheet packages are available today. Some of these are simple, interactive packages that run on personal computers, and some are programming language like packages that run on mainframe computers. MicroPlan combines features from both of these types. It is an interactive package in which both your spreadsheet and a command menu are displayed on the screen at all times. You can easily select commands from the menu and then immediately see the effects of using those commands. MicroPlan also has the functionality of many mainframe spreadsheet programs. The list of features below discusses many of the advanced modeling features.

Because of its advanced features such as consolidation and programming, MicroPlan is ideal for applications where models are large or repetitive in nature. If you are responsible for producing monthly forecasts for several different product lines, you can set up a MicroPlan model that prompts for new data each month, calculates variances between actuals and targets, and produces monthly summary reports.

**Key Features of MicroPlan and the Consolidation Module**

■ **Consolidation.** In many spreadsheet packages, calculations can be performed on a single spreadsheet which must reside in the memory of the computer. Models often become large and unmanageable because all information needed to produce totals or other summary data must be contained in a single model. Consolidation is a solution for this problem. It allows you to bring in data from tables stored on disc. This lets you break up problems into small manageable pieces and then consolidate to produce summary or total information. MicroPlan provides four types of consolidation:

1. Retrieve a single row or column from any table on disc.
2. Add, subtract, multiply, or divide data in two full spreadsheets. These operations can also be performed on partial tables.

- 
3. Row-by-row merging of two tables. If row titles match, values are added together, otherwise they are ignored. This is useful for producing summary reports.
  4. Post data from a file to a spreadsheet. You can selectively load in data based on match criteria. For example, you can take journal entries from a general ledger file and post them to the appropriate account numbers in a MicroPlan spreadsheet.
- **Programming.**—You can save a sequence of MicroPlan commands as a program and re-execute them at some other time. These programs can have prompting messages that prompt the operator for input.
  - **Application Interfaces.**—MicroPlan supports several file formats which allow you to interface with other application packages. You can plot your spreadsheet data using Series 100/Graphics, load or save tables in VisiCalc DIF<sup>™</sup> format, and save a copy of a formatted report on disc so that it can be merged into a document. In addition, MicroPlan has a generalized facility for loading in ASCII data files which does not require the data to be in a specific file format. This allows you to read in data from Condor<sup>™</sup> databases, other programs on your Series 100, HP 3000 applications, and other host applications.
  - **Built-In Formulas.**—Many built-in commands are provided to perform mathematical, financial, and statistical computations. These include: discounted cash flows, internal rates of return, four types of depreciation, mean, standard deviation, moving averages, summations, and others.
  - **Reporting Flexibility.**—A variety of formatting options allow the user to produce professional looking reports. Number formats, column widths, spacing between lines, underlining, and titles are among the options that are available.
  - **Self Documenting Models.**—You can view and print the command logic and formatting specifications for a model.
  - **Menu Driven.**—MicroPlan has an on-screen command menu that makes it easy for you to remember and enter commands. In addition, there is an on-screen help facility for all commands.
  - **On-Screen Spreadsheet.**—Your MicroPlan spreadsheet is always displayed on the screen. You can immediately see the effect of any command that is executed.

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**Enhancements for the Series 100**

MicroPlan has been extensively enhanced for the Series 100 Personal Office Computers:

- Softkeys for quick entry of frequently used commands.
- New commands that allow MicroPlan to interface with other software packages.
- Use of keys on the keyboard for functions such as cursor motion, insert line, delete line, and canceling commands.
- Integration into the Series 100 Welcome Menu.
- Reorganization of the command set to make command entry easy.

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**Support and Ordering**

Series 100/MicroPlan is available as HP product number 45670A, and the MicroPlan Consolidation module is HP product number 45671A. Refer to the "Ordering Information" section in this issue for ordering details.

Hewlett-Packard support is available for Series 100/MicroPlan through the Series 100 System Information Service (45530K).



## Video Display Interface for the HP 125

Cathy McElhiney



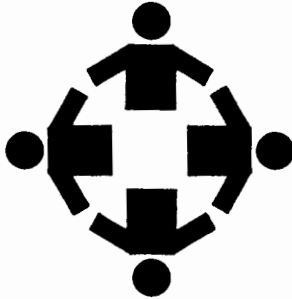
How many times have you had the opportunity to present on-screen information to large groups of people and had a problem showing the people in the back of the room?

Now, as a special product, you can purchase a video display interface for your HP 125. The interface may be purchased as an accessory (93995A) to your HP 125A or HP 125B or as an option (V04) at the time you order your HP 125B. If the interface is ordered as an accessory, you may have an HP Customer Engineer install it, or take it to an HP Field Repair Center for installation. This special product is not available for the HP 120.

This interface allows you to hook up RS170 compatible monitors that accept a horizontal scan rate of 24.9K Hz to your HP 125A or HP 125B. Electrohome, Conrac, and Tektronix provide compatible monitors. This is an ideal tool in training situations where a larger display is desired.

See your HP Sales Representative for more information.





The Series 100 International Users Group (IUG) is a non-profit association (soon to be incorporated), whose purpose is to provide services to Series 100 users. The group emphasizes use of the Series 100 in a business environment by professionals to solve business problems. After talking to many users of Series 100 products, we decided to focus on two major goals, information exchange and a contributed software library. Both goals revolve around improving the productivity of Series 100 users.

### Information Exchange

The first goal is to provide information exchange. Users are very interested in knowing what program products their fellow users are running and how well they run on the Series 100. What was involved in installing the products? Also, what tips and techniques have been developed to overcome short-falls in, or improve upon software and hardware operations? The Users Group addresses these areas in two ways:

- The Users Group publishes a newsletter containing feature articles, software and hardware product reviews, program listings, and a tips and techniques column.
- The Users Group holds meetings, workshops and seminars. The gatherings have covered a wide variety of topics; everything from using the Series 100 as a standalone microcomputer to using it as an intelligent workstation in conjunction with the HP 3000. The HP 120 was introduced at our first general meeting in November, 1982. The Users Group sponsored a booth at the West Coast Computer Faire in San Francisco's Civic Auditorium in March. A buffet luncheon and meeting, was held on Saturday, March 19 at the Faire. It was a great opportunity for members to really get to know one another.

### Contributed Software Library

The second goal is to establish and maintain a contributed library of public domain software that runs on the Series 100. Public domain software comes from a variety of sources. Two examples are the New York CP/M Users Group Contributed Library and contributions from members.

- The New York CP/M library contains over 90 eight-inch discs. Reviewing the library material is quite a laborious process. Step one is to test and install as many programs as possible on the Series 100. Step two is to extract the "pearls"—the best of what runs on the Series 100—for inclusion in the contributed library. Finally these programs need to be downloaded from 8" single sided, single density (i.e., IBM 3741) format to 5-1/4" format and copied for distribution.

- From members, we hope to receive everything from VisiCalc and database models to BASIC, Pascal, and COBOL programs. We hope to issue the first volume of the Series 100 Contributed Library soon. Each volume will be available at a nominal cost to members. Software contributions are gladly received for inclusion into the library with the understanding that the contributor is authorized to make the material available to others for their individual non-commercial use. Software should be accompanied by adequate documentation in the form of internal comments or an accompanying documentation file to permit the material to be utilized or modified. Where appropriate, the documentation should describe any supporting software (interpreter, sort, clock, etc.) necessary to run the routine.

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### **Progress**

It's been about six months since the start of the group—we now have members in Canada, Europe, and South America as well as coast-to-coast. The name of the group has gone through a few changes, finally settling on the "HP Series 100 International Users Group", to reflect its scope and international status.

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### **How to Participate**

The HP Series 100 IUG is well on the road to success. However, support from the membership and others is critical to insuring the success of the group. To join, send your check for \$50 (U.S. dollars) annual dues to:

HP 100 International Users Group  
care of: Marine Terminals Corporation  
289 Steuart Street  
San Francisco, California 94105  
(415) 465-1244

To paraphrase the "Notes from the Editor" from the first newsletter:

"You have probably heard the expression "The whole is greater than the sum of the parts". This is the key to understanding why the Series 100 is so successful. It smoothly integrates word processing, data management, financial modeling, graphics, microsystem development, and data communications in a well-executed package."

"The HP Series 100 IUG is dedicated to complementing this synergy of the Series 100."

# About Applications

## Comparing Condor and dBASE II

Jerry Erickson



Since many of you have requested a comparison between the two database software packages offered through HP for the Series 100, the following comments and quick comparison chart should help.

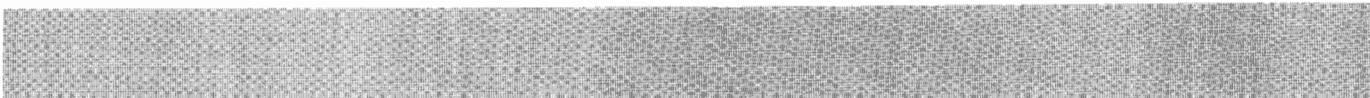
### Similarities

To begin with, both Condor<sup>®</sup> and dBASE II<sup>®</sup> are very good database products. Both products have been very well reviewed in the trade press. The modifications made to Condor's DBMS to optimize its running on the Series 100 (softkeys, integration with other Series 100 software, rewritten documentation, etc.) are major ease-of-use items making the Condor product easier to learn and manipulate than dBASE II.

### Differences

On the other hand, the fact that dBASE II is standard CP/M software means it will work equally well on Series 80 or Series 100 computers.

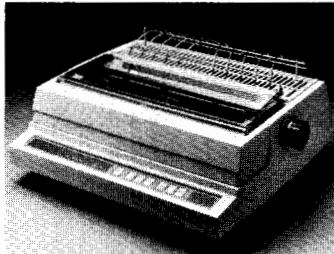
The price on the two products is about equal (given an equal level of features supported), but the fact that Condor offers modules of software makes it more flexible for the growing company.



	<b>Condor</b>	<b>dBASE II</b>
	*Much enhanced for Series 100	*Standard CP/M, works well on Series 80 or Series 100
	*Integrated into other Series 100 Software: Graphics/100 Series 100/Word WordStar/100 BASIC/100 Series 100/MicroPlan etc.	*Not integrated, but will print files
<b>Ease of Use:</b>	High (Softkeys, English commands, excellent documentation)	Medium (No softkeys, coded commands, very good documentation)
<b>Flexibility:</b>	High (Easy to reorganize or restructure files)	Medium-to-High (Not as easy to restructure)
<b>Ease of Learning:</b>	Easy	Medium
<b>Size:</b>	Approx. 32,000 records (Max. = 1024 bytes/record 127 fields/record 127 characters/field)	Approx. 64,000 records (Max. = 1000 bytes/record 32 fields/record 254 characters/field)
<b>Create and Execute Command Files:</b>	Medium capability	Higher capability
<b>Process Speed on Hard Disc:</b>	23,000 records/minute	10,580 records/minute
<b>Support:</b>	HP support available (45530K System Information Service)	Vendor supported (Ashton-Tate 9929 W. Jefferson Blvd. Culver City, CA 90230 (213) 204-5570)

## Sending Escape Codes to Printers from WordStar and Condor

Hal Sindler



Neither WordStar nor Condor have the capability to directly send escape codes to a printer as do VisiCalc and Word. In addition, if you set up the printer before going into Condor, Condor will reset the printer upon execution. Thus, it would appear there is no way to put an HP 82905B printer into compressed or expanded print from either of these packages.

Fear not, here is where PIP comes to the rescue! Remember that both WordStar and Condor allow you to run a .COM program without exiting from the application. WordStar has the 'RUN PROGRAM' softkey and Condor allows you to execute another program from the command prompt by preceding its name with a '\$'.

In either application, bring up PIP and do the following:

1. LST:=CON: [RETURN] Transfer console input to printer
2. Type the escape sequence followed by a carriage return. Press the escape key 'ESC' directly — do not use "Display Functions"

For example, for compressed print on the HP 82905B, type:

```
ESC&k2S
```

It might be more convenient to put the escape code in a file rather than inputting from the keyboard. Use PIP to create a file "COMPRS" from the console:

```
COMPRS = CON:[RETURN]
```

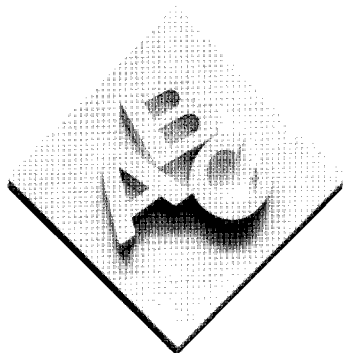
Then type the escape sequence on the keyboard as described above except that you must terminate the input with a CNTL-Z for an end-of-file.

When you wish to use the escape code from WordStar or Condor, bring up PIP and send the file to the printer:

```
LST:=COMPRS [RETURN]
```

Your printer will now be configured accordingly.

Refer to the article "Changing Printer Characteristics" in Issue No. 3 of the *Communicator* for a comprehensive discussion of printer escape code capabilities. [Back issue available. Refer to "Ordering Information" in this issue.]



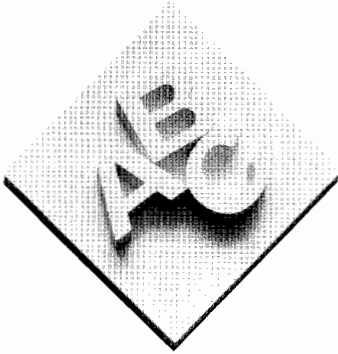
Text created in one word processor is not necessarily compatible with another. For example, if a letter is produced in Series 100/Word and then read into WordStar/100, an interesting thing happens — every line is marked as an overprint line!

The interchangeability of text is limited as follows:

- 1. WordStar document into Word ..... No
- 2. WordStar non-document into Word ..... Yes
- 3. Word text with word wrap into WordStar ..... No
- 4. Word text stored with "/1" into WordStar ..... Yes

Therefore, if you plan to transport WordStar files to Word, create the files as non-documents. If you plan to transport Word files to WordStar, store them with "/1" after the filename.

### Two-Column Print



Yes, WordStar/100 can do two-column (or multi-column) print. You will be limited in the changes that can be made after you have formatted the document this way, but it can be done. Here is a sample (two-column print) for you to try, followed by an outline of the steps and softkeys used. You can use the same technique to generate multi-column print documents.

Begin by typing all your text in the column width you desire (for this example, we will use columns 0-30). Set your right margin to 30, then type all your text in this column. Be sure to turn microjustification off (.UJ OFF) or your columns will run together.

Next, move the text from columns 0-30 to columns 35-65. Begin by turning column mode ON (the softkey accessed by the 'copy & move' set of softkeys). Mark the beginning and end of the block to be moved using the 'MARK BLOCK START' and 'MARK BLOCK END' keys. Then set your new margins to 36-65, place the cursor where you want the block to be positioned, and press the 'MOVE BLOCK' softkey.

Your text is now in a two-column format. You cannot make any changes that cause the paragraph to be reformatted. However, this procedure can be reversed by moving the text back into the original column, making the changes, and moving the block back into the second column.

Steps	Softkeys Used
1. Set Right Margin to 30	'margins & tabs', 'RIGHT MARGIN'
2. Type ".UJ OFF" on first line starting in the first left hand column	
3. Type all your text	
4. Turn column mode on	'copy & move', 'COLUMN MODE'
5. Mark the start of the block to be moved	'MARK BLK START'
6. Mark the end of the block to be moved	'MARK BLK END'
7. Change left margin to 35	'margins & tabs', 'LEFT MARGIN'
8. Change right margin to 65	'RIGHT MARGIN'
9. Place the cursor where the new column should start	
10. Press the move block key	'copy & move', 'MOVE BLOCK'
11. Remove the block enhancement	'HIDE/SHW BLOCK'

WordStar automatically pre-sets many features for the user. Some of the defaults you may change most frequently can be altered with a dot command. Each dot command has a default, and these commands are listed in three places: on the Quick Reference Card, in the Self-Paced Training Manual (pages 8-15), and in the Reference Manual (Appendix A-5). Some of the most common defaults you might wish to change are listed below:

---

**Dot Commands**

**Margin at Top** (Default is 3 blank lines): This may cause problems when you try to line up paper in the printer on a specific line (such as on letterhead). In the default mode, the printer automatically moves the paper up three blank lines. To eliminate these three lines, use the dot command ".MT 0". You may also use any other number to set the top margin to the line desired (e.g., .MT 6).

**Microjustification** (Default is ON): This may occasionally cause some of your text or columns to be misaligned. To correct this problem, turn microjustification off with the dot command ".UJ OFF". If the right justify is off as you type the text, microjustification will automatically be off and any spacing problems will be eliminated.

**Page Numbers** (Default is ON): To omit page numbers on any letters or other documents, type the dot command ".OP".

**Page Length** (Default is 66 lines): If you wish to change the page length, use the dot command ".PL n" where n = the number of lines you would like to set for your document.

**New Page:** If you wish to create a new page anywhere in your text without changing the page length, type the dot command ".PA" where you want the new page to start.

---

**Other Tips**

**Right Margin** (Default is 65): The maximum right margin with word wrap set is 255.

**Stop Printing:** If you make an error and wish to stop the printing of your document, press the softkey 'PRINT A FILE' to stop printing in progress.

**The BREAK Key:** Push the BREAK key when you wish to:

1. Interrupt a previously selected option (i.e., WordStar asks you a question; you change your mind and want to go on to something else).
2. Stop your text from scrolling (i.e., you have hit the scroll up or scroll down key so many times that you see the place in your text where you want to stop scrolling by on the screen).

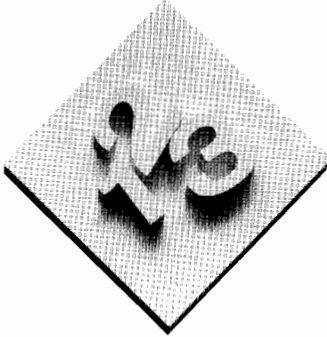
The BREAK Key will prompt you to hit the escape key; you may then resume wherever you wish.



## Getting VisiCalc to Round Dollar Values to Two Places

Hal Sindler

### Discrepancy



Have you ever noticed that there is a discrepancy between results reported in a VisiCalc worksheet and what you would expect by doing the same calculation with an ordinary calculator or by paper and pencil?

The reason is that VisiCalc calculates and rounds to eleven or twelve places—thus making it too precise! For example, look at the following example:

Note	Rate	Interest	Interest Added Manually
67.81	16.50	11.19	11.19
123.67	16.50	20.41	20.41
82.72	16.50	13.65	13.65
54.72	16.50	9.03	9.03
		<u>54.27</u>	<u>54.28</u>

The total interest shown in the interest column does not agree with what you get if you add the numbers on paper—as shown at the right.

### Solution

The solution to the problem is to use a rounding formula that will hold the precision to two decimal places. The rounding formula will reference the original formula. This requires an additional column in the worksheet.

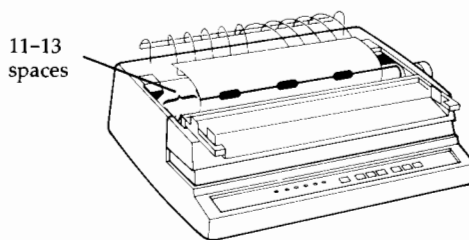
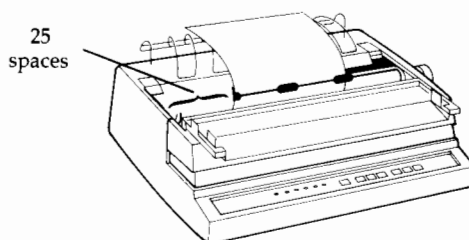
If the interest is in column C, column D can be used for the rounding formula:

	C	D
1	11.19	@INT((C1)*100+.5)/100
2	20.41	@INT((C2)*100+.5)/100
		.....and so forth

Column D is totaled in the usual manner by using the @SUM function. This total will agree with your paper answer. Note that the formula can be replicated down column D.

Series 100/Word now supports the HP 2601D sheet feeder on the HP 2601A printer. You should be aware, however, that your margins are affected when using the sheet feeder.

When you put paper into the printer, you place it at the left edge of the platen. When the sheet feeder feeds paper into the printer, it feeds the paper farther to the right.

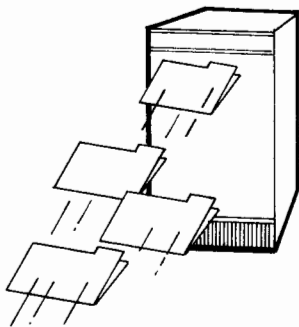


You have probably set your HP 2601A printer to work as a precision printer. This means that the Y-Table entry PRINTER TYPE is set to 0.

To compensate for the fact that paper feeds in farther to the right with a sheet feeder, set your INDENT - 10THS value in the Y-Table higher. Add 23-25 to the entry if you are using portrait mode, and 11-13 if you are using landscape mode. For example:

Portrait Mode		Landscape Mode	
INDENT-10THS	Left Margin	INDENT-10THS	Left Margin
25	0 spaces	13	0 spaces
30	5 spaces	18	5 spaces
35	10 spaces	23	10 spaces

If PRINTER TYPE is set to 1, this problem does not occur. However, a landscape page has an automatic 11-13 column left margin in this case.



Series 100/DSN/Link and Link/125 are data communication programs that link Series 100 Personal Computers to an HP 3000 or other host computers. Both Link/125 and DSN/Link have a similar menu interface. The initial menus have softkeys defined to transfer files to and from the HP 3000, record interaction with a host computer to a local file and/or printer, and execute files containing pre-defined computer commands.

### Advantages of DSN/Link

In addition to the feature set of Link/125, DSN/Link offers many additional capabilities:

- Improved File Transfers with the HP 3000

- 1) **Faster Block Transfers:** When transferring ASCII files, many short records are now collected into a single block and moved at once. Modest speed improvements have been observed transferring data to an HP 3000 Series III at 2400 baud, and greater speed improvements are possible at higher baud rates.
- 2) **Error Checking:** A new file transfer protocol supports block error-checking with automatic data re-transmission to the HP 3000. By using a "checksum" test algorithm, validity of the transmitted data is now automatically verified, ensuring the integrity of the transmitted file.
- 3) **Binary File Transfers:** In addition to ASCII characters, DSN/Link allows you to transfer files containing binary data. This feature has two key benefits: a) an exact copy of an application data file may be made for archive purposes or for transmission to other Series 100 users; and b) files containing object code can be transferred. For example, a compiled COBOL program could be transferred to any other system and executed without having to re-compile.

- New Command File Features

An expanded list of file transfer commands may be used to transmit commands to a host computer and perform special functions locally. Command files may be used to automatically run a host application, batch files from disc, and customize the user interface to initiate transfers. Additional commands are useful for defining an interface to non-HP host programs.



---

## Typical Uses

- Access host mainframe databases

Remote databases can be accessed through user-defined command files. This enables users to download data to the local Series 100 computer, and then integrate it into local programs. For example, a sales manager building an order forecast could access an IMAGE database on the HP 3000, run a QUERY/3000 command file, and have the resulting file written to her local HP 120. That information could then be integrated into a MicroPlan forecast model to calculate the latest shipment and profit figures.

- Reduce connect time with information services

A popular application for microcomputers today is "dial up" information services. Stock market quotations, the latest news, or library searches represent a small part of information available to a Series 100 user with a modem. DSN/Link can reduce connect costs dramatically: a command file can be developed to establish a connection and send log-on information, data can be stored to disc, and then the results can be studied after ending the connection, rather than remaining on-line to review the data.

- Distribute information to other users

Data stored on a host computer can be readily accessed using DSN/Link by other users connected to a Series 100. For example, a secretary could create a document using WordStar and store it using binary file transfer to the HP 3000. A manager could access the file later, make changes, and print the document on a local printer, or make it available on the HP 3000 for distribution with DSN/Link to other members of the staff.

---

## Connection to Hosts Other Than the HP 3000

Block error checking and binary file transfer features of DSN/Link are designed primarily for use with HP 3000 computer systems. However, Series 100 computers have very flexible communications capabilities and files may also be transferred successfully with other "non-HP 3000" computers. The DSN/Link manual suggests three methods of transfer:

- Transfer files to the host using command files.
- Transfer files from the host using the logging function.
- Create a special host file transfer program.

The method of choice depends on the availability of programming resources and the technical ability of the customer. Three sections are included in the DSN/Link manual to assist the user: "Transferring Files with Other Host Computers", "File Transfer Protocol", and "Command File Features". The latter section includes sample command files for customized file transfer to HP 1000, VAX (with UNIX operating system), and Amdahl 470 (with TSO operating system) computers using command files and host editor programs.

---

**Additional Information**

A special program is uploaded to the HP 3000 the first time you run DSN/Link (as opposed to using FCOPY in Link/125). The special host program requires intrinsic routines specific to the HP 3000. DSN/Link utilizes the HP 3000 Pascal library, and therefore the Operating System on the HP 3000 must be MPE IV C.00.20 or later (D.00.20 on the HP 3000 Series 64).

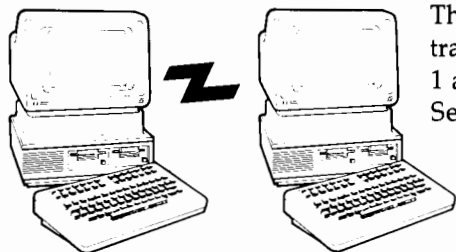
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**How to Obtain  
Series 100/DSN/Link**

If you presently have Link/125, you may wish to upgrade to Series 100/DSN/Link. Refer to the "Ordering Information" section of this issue for ordering instructions on ordering updated software and manuals.

## Connecting Two Series 100 Systems for ASCII File Transfer

Frank Heartney



This article discusses how to prepare two Series 100 systems for ASCII file transfer. Each Series 100 system has two serial data communication ports (Port 1 and Port 2). This data communication power can be used to connect two Series 100 systems directly to exchange data.

### Hardware Configuration

Appendix B of the Link/125 manual contains information about connecting two Series 100 systems. Here are some additional pointers.

- You can use a serial printer cable (HP product number 13242G) to connect two Series 100 systems for distances less than 9 feet. This cable will fit either serial port on the HP 120 but only port 2 on the HP 125.
- For distance more than 9 feet, use a modem connection between two Series 100 systems. You may use a remote data communication cable (HP product number 13242N) for Port 2 or (HP product number 13222N) for Port 1.
- The handshake 'Hndsk' field in the Terminal Configuration Menu for the serial port used should be 'etX' on both Series 100 systems.
- You can verify proper connection by putting both machines in 'REMOTE MODE' with local echo enabled and checking that characters entered at one keyboard appear on the opposite screen.

### Port 1 vs. Port 2

- An important difference between Port 1 and Port 2 is the 'Xon/Xoff(x)' field where 'x' is either 'Recv' or 'Xmit'. For port 1, the configuration is fixed at 'Xon/Xoff(Recv)'. For Port 2, the default configuration is 'Xon/Xoff(Recv)', but this may be changed to 'Xon/Xoff(Xmit)' on the Series 100 that is sending the data.
- Port 1 is an 8-bit data port and Port 2 is a 7-bit data port. 8-bit binary data such as a '.COM' file cannot be passed through Port 2. This restriction does not apply when using DSN/Link, which downloads special data communication code into terminal memory to force 8-bit data transfer through Port 2.

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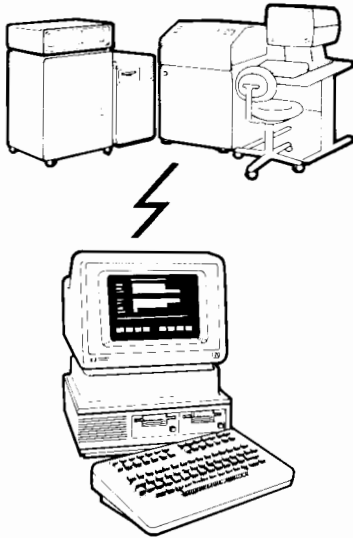
## File Transfer

Once you have established the proper connection between the two Series 100 systems, you can use the following techniques to transfer files.

- The Logging and Command File capabilities in both Link/125 and Series 100 DSN/Link can be combined to perform bi-directional ASCII file transfers. For further information, refer to the Link manuals.
- Appendix B of the Link/125 manual gives a listing of a BASIC program that works with Link/125 to provide softkey-driven file transfer between two Series 100 systems. This program has been used successfully. However, the program does not handle records longer than 80 characters.
- You can write your own programs that send and receive data through the two serial ports. For more information, refer to the following chapters in the *Series 100 System Reference Manual*.
  - Chapter 9: CP/M® System Function Calls (#3,#4)
  - Chapter 10: Extended Function calls (#112,#114,#115,#116)
  - Chapter 11: Device Mapping

## Transferring IMAGE/3000 Data to a Condor Database

Wes Davis



This article describes a procedure to download data from an HP 3000 IMAGE database into a Series 100/Condor database; it assumes that the user already knows how to log-on to the HP 3000 system, and is familiar enough with QUERY/3000 to generate simple reports.

The IMAGE/3000 information must be put into a file that is compatible to the specifications and format of the Condor database for which it is intended. This means the output of the IMAGE database must be in ASCII code, in columnar format, with the correct number of fields. The sequence used in the downloading procedure is as follows:

1. Put the Series 100 in REMOTE MODE (asterisk in f4).
2. Log-on to the HP 3000 using the HELLO command.
3. Type in the following file equate statement:

```
FILE QSLIST;DEV=DISC;REC=-80,1,F,ASCII;SAVE;NOCCTL;DISC=n
```

where: — QSLIST is the file name

— DEV=DISC puts the file on disc

— REC=-80,1,F,ASCII sets the records with a length of 80 characters, a blocking factor of 1, with a fixed length, and in ASCII format

— DISC=n builds report file for n number of records (default is 1024)

4. Get into the QUERY/3000 subsystem by typing the following:

```
RUN QUERY.PUB.SYS
```

5. Once in QUERY/3000, define the database being used in the following manner:

```
>DEFINE
```

```
>>DATA-BASE= Database name
```

```
>>PASSWORD= Password
```

```
>>MODE      = See Query manual for various mode explanations
```

```
>>DATA-SETS= Data set from which you will be searching on
```

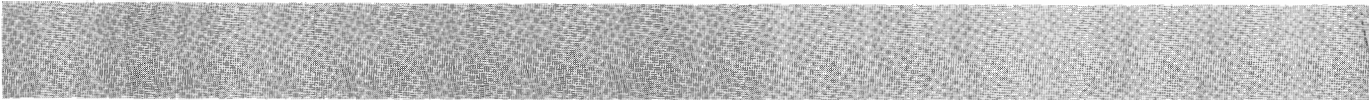
```
>>PROC-FILE = Don't care
```

```
>>OUTPUT    = Set to LP
```

6. Use the FIND command to search on the item(s) desired.

7. Type REPORT NOPAGE, this will bring up a ">>" prompt.



- 
8. Once in the report mode, begin typing in the detail lines using D1,FIELD-NAME,# (where # is the ending column position of the field). Make sure that no spaces are left between each field. When finished, put an END statement and press the RETURN key (this will send the information out to the file called QSLIST).

Note: Steps 5-8 may be combined into a QUERY XEQ file.

9. Exit the QUERY/3000 subsystem.
10. Put the Series 100 in LOCAL OPSYS MODE (asterisk in f3).
11. Load Series 100/DSN/Link or Link/125.
12. Fill in the "Transfer From Host" menu using QSLIST as host filename.
13. Begin transfer from host.
14. Log-off from the HP 3000.
15. EXIT Link.
16. Load Condor
17. Make sure that the format of your database corresponds to the format of the records brought over from the HP 3000. The sequence of the fields in the Condor database must correspond to the sequence of fields in QSLIST, either going from left to right, or straight down.
18. Read records into Condor using the following Condor command (pages 8-3, A-42):  
READ Database-name QSLIST

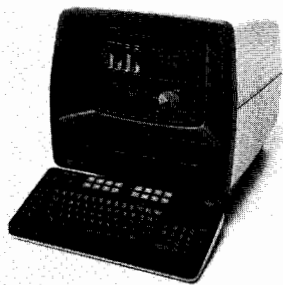
Once the records have been put into the Condor database, they can be used to generate graphs, mailing lists, reports, etc.

The procedure shown above is just one way to download records from an HP 3000 database. Users who possess a more in-depth understanding of the HP 3000 may be able to expedite this process using XEQ files or other programs available on the HP 3000.

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## Transferring Data to the HP 2700 Color Graphics Terminal

---



As people learn more about computers and their capabilities, they become aware of the fact that they may need to move their data from one computer to another in order to accomplish a particular task. The latest request has been for information on how to transfer VisiCalc data to the HP 2700 Autoplot program.

Testing was done using a hardwire connection (although the same procedure could be used with a modem connection between the two systems). For the Series 100, either port 1 or port 2 can be used. It is recommended that only port 1 be used on the HP 2700.

---

### Hardware Setup

		HP 125	HP 2700	HP 120
Cables:	Port 2	13242N	Not Used	13222N
	Port 1	13222N	13242N	13222N

A 13232U modem bypass cable is also required to complete the connection between the two 'N' cables. The systems are configured for 2400 baud, with Xon/Xoff handshaking selected.

---

### Software Setup

A VisiCalc worksheet is created using a Series 100 system. The data is stored as a print file (file type '.PRF'). The article entitled "Making Graphs from VisiCalc Worksheets", *Communicator* Issue No. 2, will be useful in obtaining information on how the VisiCalc worksheet should be set up. [Back issues are available. Refer to "Ordering Information" in this issue.]

The HP 2700 is set up to run its Autoplot program. (Refer to the *Autoplot/2700 User Manual*, pages 6-10 to 6-11 for more details.)

---

### Series 100 Device Assignments

On the Series 100, device mapping is used in order to set up the connection between Series 100 logical devices. The CP/M punch output is assigned as the "source" device. For the "destination" device either datacomm port 1 or datacomm port 2 can be used. Remember that the cables that can be used are dependent on the port used to send the data.

The two device mapping sequences that can be used are:

Port 1: ESC & i 1 0 s 1 6 d 4 M

Port 2: ESC & i 1 0 s 1 8 d 4 M

---

## **Sending data to the HP 2700**

Once the device assignments have been made, you are ready to transfer the data file. The transfer is done using the PIP program.

1. After the CP/M prompt type the word 'PIP'.

Example: A> PIP

2. PIP shows that it is active by returning a '\*' prompt. The device name that PIP associates with the CP/M punch device is 'PUN:' The command that is given to the program will include this device and the file to be transferred.

Example: \* PUN: = filename.PRF

The data file will be transferred over to the HP 2700, which has been set up to receive data from a host computer. See the HP 2700 Autoplot Manual, Chapter 6, for the details on preparing the HP 2700 to receive data.

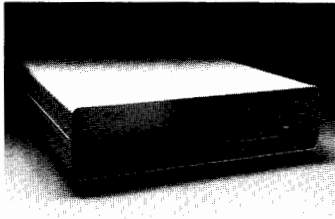
3. When the file transfer is complete another '\*' prompt will be displayed on the Series 100 CRT. Press the RETURN key on the HP 2700 and the message "TRANSFER COMPLETED" will appear in the HP 2700 message window.

The information sent to the HP 2700 can now be used for pie charts, bar charts, etc.



## Installing the Operating System on Your Fixed Disc

Jennifer Cobbe

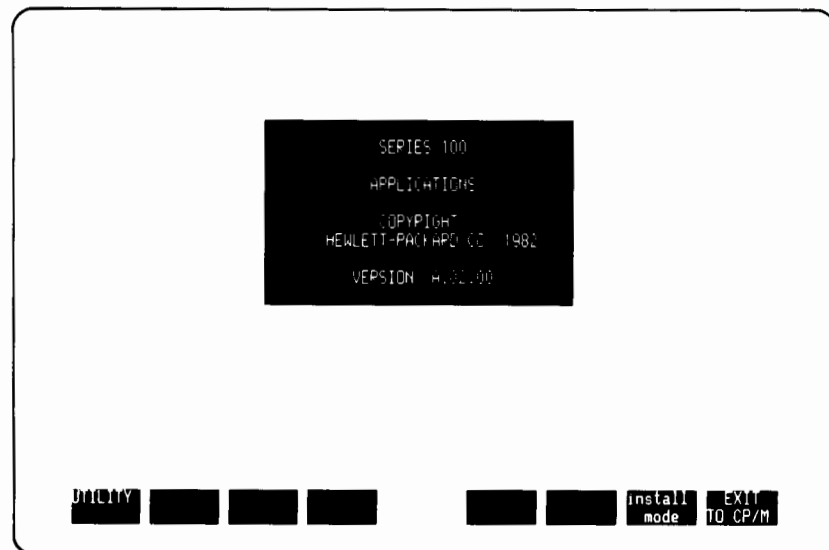


The instructions in your HP 120 or HP 125B Installation Guide for installing the Operating System onto your fixed disc will work with Operating System version A.01.20 only when installing from an 8-inch Operating System disc. Installing the Operating System from either the 3-1/2" or 5-1/4" size disc will result in an "INCOMPATIBLE WITH SOURCE MEDIA" error message.

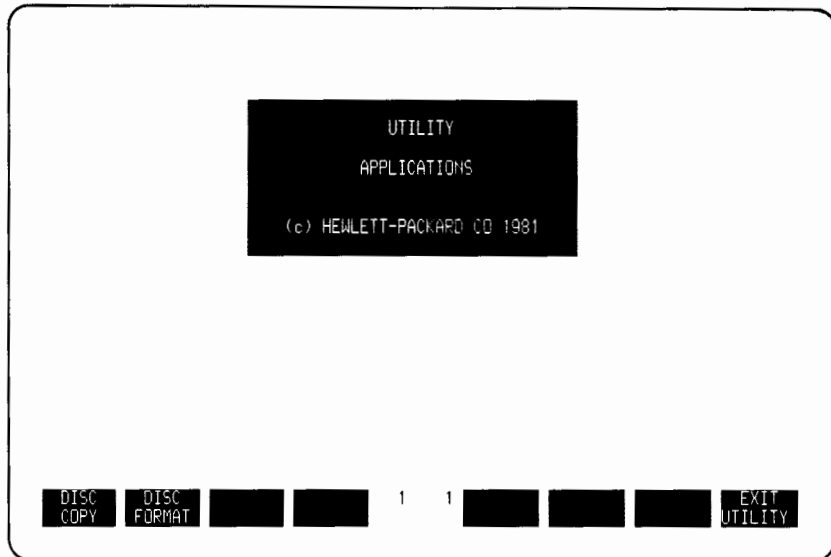
This article provides the step-by-step instructions for installing the Operating System onto your fixed disc from any size Operating System disc (3-1/2", 5-1/4", or 8"). These instructions should be used in place of those on pages 7-18 through 7-21 in your HP 120 or HP 125B Installation Guide. Be sure you have properly formatted the fixed disc before proceeding with the following instructions (see "Formatting a Fixed Disc", pages 7-9 to 7-17 in your Installation Guide).

Note that these instructions are only for use with the A.01.00 COPY utility included on the A.01.20 Operating System disc. The COPY utility (version A.02.00) provided with the A.01.40 Operating System eliminates the need for this procedure.

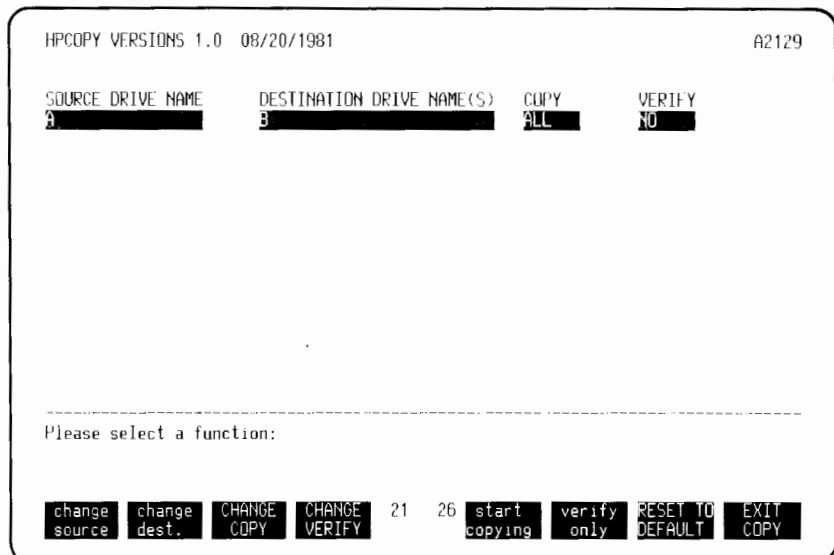
20. Press UTILITY (f1).



21. Press DISC COPY (f1).



22. Press the *change dest.* (f2) function key.



23. Type E and then press the [ RETURN ] key (on the keyboard). Notice that your destination drive name changed to E.

```
HPCOPY VERSIONS 1.0 08/20/1981 A2129

SOURCE DRIVE NAME  DESTINATION DRIVE NAME(S)  COPY  VERIFY
A                 E                 ALL   NO

-----
Please select a function:

change change CHANGE CHANGE 21 26 start verify RESET TO EXIT
source dest.  COPY  VERIFY copying only  DEFAULT  COPY
```

24. Press CHANGE COPY (f3) until SYSTEM appears in the copy field.

```
HPCOPY VERSIONS 1.0 08/20/1981 A2129

SOURCE DRIVE NAME  DESTINATION DRIVE NAME(S)  COPY  VERIFY
A                 E                 SYSTEM NO

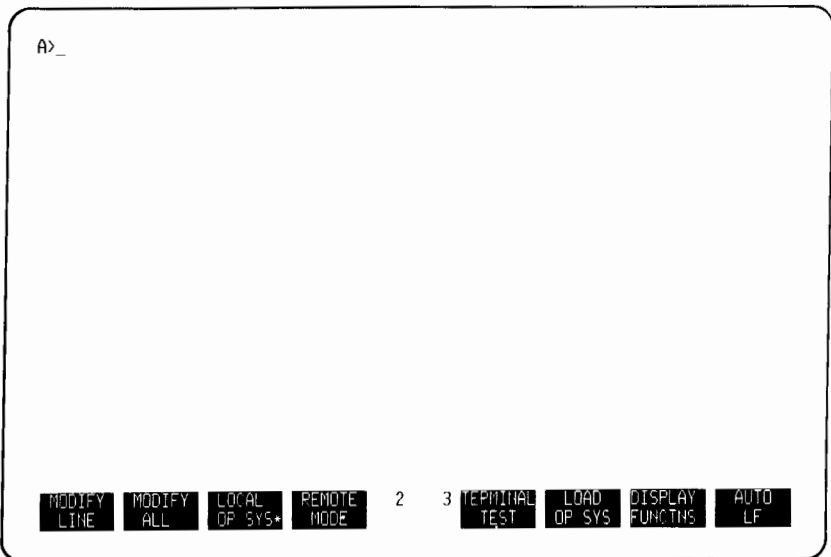
-----
Please select a function:

change change CHANGE CHANGE 21 26 start verify RESET TO EXIT
source dest.  COPY  VERIFY copying only  DEFAULT  COPY
```

25. Press *start copying* (f5).
26. Press PROCEED W/COPY (f5). As the operating system is copied, several messages are displayed on the screen. Your system will beep quietly when it is finished copying.
27. Press EXIT COPY (f8). The Welcome menu appears.
28. Press EXIT TO CP/M (f8).

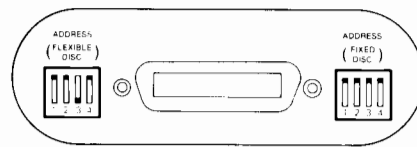


29. Following the 'A>' type,  
PIP E:=A:\*. \* [ RETURN ]  
to copy all the utilities to the work disc.

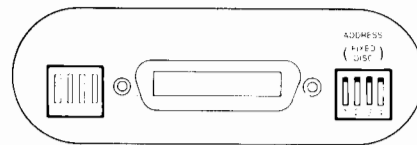


30. Remove the flexible discs from the drive(s).
31. Turn the drive OFF.
32. Now, change your disc drives' address switches as follows:

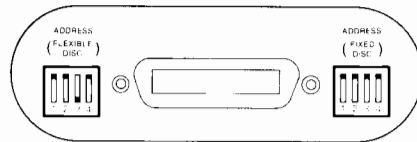
For the 9135:



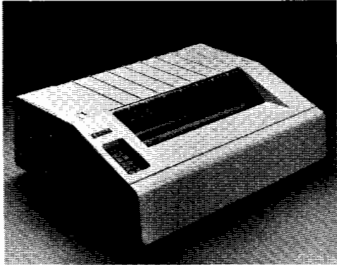
For the 9134:



For the 9133:







While using the HP 125 or HP 120 with the HP 2631B HP-IB printer, be careful not to go off-line (for example, running out of paper or taking the printer off-line), for longer than 10 seconds for the HP 125A or longer than 30 seconds for the HP 120 and HP 125B. If this happens, three characters will be lost and the page missing the characters must be reprinted. This only occurs when using the HP 2631B with the HP-IB interface (Option 046), and not when using the RS-232 (standard) interface.

Characters are lost when the printer goes off-line and is returned on-line after the HP-IB timeout in the Series 100 System has occurred. This timeout is one of the methods by which the system reports the activity on the HP-IB bus. When the system is told to send data to an HP-IB printer, it checks to make sure that the HP-IB printer is taking the data. If the printer does not take the data, the system waits and then reports that an error has occurred. The HP 125A waits about 10 seconds and the HP 125B and the HP 120 wait about 30 seconds.

Upon returning back on-line, the error message "HP-IB Printer Error, press RETURN to clear" appears. In order to resume printing, the RETURN key and then the RESET key must be pressed on the system. Printing resumes after pressing the RESET key — however, three characters are lost.

**Remember:** When using the standard HP 2631B (RS-232 interface), there should be no characters lost. The handshaking that occurs prevents this.

# Programmer's Potpourri

## Programming Challenge—Bypassing WELCOME

Eunice Yan

### Question



It is often desirable to load and execute an installed application directly from CP/M on the Series 100. Currently, most of you have to get into the WELCOME screen and press the softkey labeled 'VisiCalc' in order to use the VisiCalc application. You would rather bypass the WELCOME menu and simply type the word 'vc' to bring VisiCalc application into memory. How can this be implemented?

### Answer

The Series 100 System Function 122 permits you to chain to another assembly language file (.COM) on disc rather than executing the WELCOME.COM program during a system warm-boot.

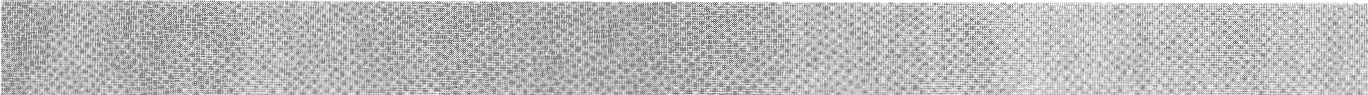
The following assembly language program prompts you for a .COM file name and passes that string to Function 122. The program then ends with a jump to address zero to force a system warmboot. Since the Operating System was set up by Function 122 to execute another file, the file you specified will be loaded into memory at the end of the system warmboot.

You can create this program source file using Series 100/Word or WordStar/100 and name it RUN.ASM. If Word is used, then the '/1' option must be used when the file is saved. If WordStar is used, then open the file as a non-document.

```

                                ORG      0100H           ;set origin
                                LXI      D,PROMPT
                                MVI      C,9
                                CALL     5              ;display prompt
                                MVI      C,10
                                LXI      D,BUFFER
                                CALL     5              ;get input
                                LXI      D,BUFFER+1
                                LXI      B,7AFFH
                                CALL     5              ;pass chained file
                                JMP      0              ;force system warmboot
BUFFER DB 80                  ;set max string length
                                DS       81            ;allocate buffer
PROMPT DB '->$$'             ;define prompt
                                END
```

Note that CP/M Function 9 is used to display the prompt '->' for an input string, and Function 10 stores the string in a buffer to be passed to Function 122. (Refer to Chapters 9 and 10 of the Series 100 *System Reference Manual* for more details on these functions.)



The following steps create a RUN.COM file which you can use to execute any .COM files on disc, including HP applications.

From CP/M, type

1. ASM RUN (to assemble the source file.)
2. LOAD RUN (to link the object file.)
3. RUN (to execute any .COM file.)

There are two things to remember when the program prompts for input. First, do not include the file type because it is assumed to be .COM. Second, upper and lower case is significant—so that hidden lower case filenames can be specified.

# Software Status Bulletin

## Software Status Reports



The Software Status Bulletin is a cumulative list of all software problems that have been reported on the Series 100. 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.

---

### 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 WELCOME.COM to a R/W file (i.e. STAT WELCOME.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 tries to recover from an error file every time it runs, 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.

---

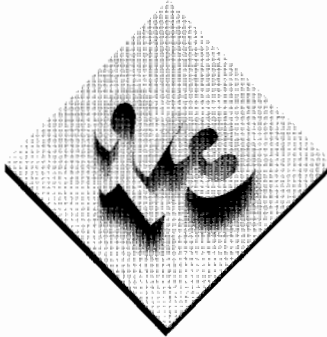
**Block-Format—Release A.02.00**

**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.

---

**VisiCalc/125—Release A.02.00**



**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:** 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.

---

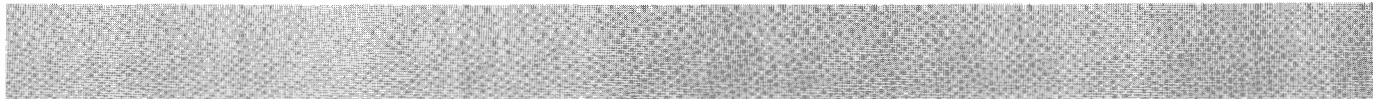
**Problem:** Sending a set-up string to an HP-IB printer which is turned off or disconnected may cause VisiCalc to hang. Reset may not be able to clear the condition.

**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 or 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 (aq...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.

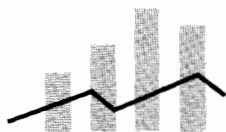
---

**Problem:** Illegal exponents result in incorrect values.

**Workaround:** Don't use exponents larger than 127.

---

#### Graphics/125—Releases 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 HP7225 and 7470. The user will have to change the pens manually as required. Specifying pen 9 when using the HP9872C 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 too 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.

---

**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.

---

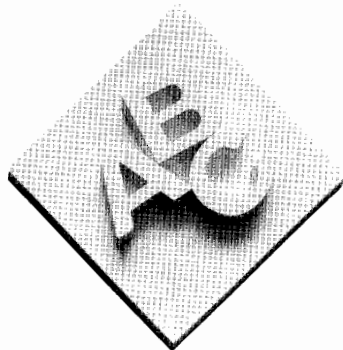
**Problem:** Vertical slides could not be made on the 7470A or 7225B plotter.

**Workaround:** Fixed in Release A.01.02.

---



Word/125—Release A.02.00



**Problem:** Print format table entries go to "32" when filename is too long. WORD/125 does not reject filenames or filetypes that are longer than CP/M filenaming conventions allow. Entering a too-long filename results in the following:

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

**Workaround:** Make sure that all filenames used in WORD/125 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 columns 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 an item to be used more than 9 times within a letter. A letter with 11 references to @ 1 of a customer file will print only 9 of them.

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

---

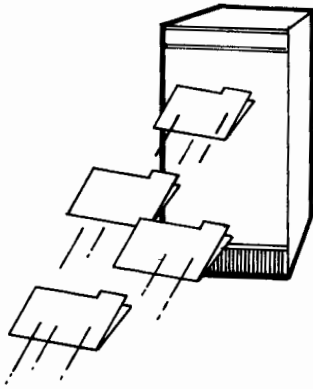
**Problem:** Decimal tab does not always terminate properly. Simple case to show problem:

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.

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

---

**Link/125—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—Release A.01.00**  
**Link 100—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.

---

**\* 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".

---

**\* 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.

---

**\* 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.

---

**\* 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.

---

**\* 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.

---

**\* 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.

---

**\* 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.

---

**BPI General Accounting  
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 in 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 125—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.

---

**Condor—Release A.01.00**



**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.

---

## HP 125 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 enhancement 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.

## Pen and Ink

---



This section presents corrections to the Series 100 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: For instruction 25, change (f6) to (f5).

If you are using Operating System A.01.20 and you need to add a fixed disc to your system, there are corrections to the *Installation Guide* covering this situation. (Refer to the article "Installing the Operating System on Your Fixed Disc" in this issue of the *Communicator*).

---

### Getting Started With the HP 125 (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)

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 1, F\$

Page B-11: Line 1130 should be "INPUT T". Line 1150 should end with a "J" not an "T". 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".

*[Order the Series 100/VisiCalc Software Update Kit to obtain the new VisiCalc manuals plus the latest software.]*

---

**Graphics/125 Reference Manual  
(7/81; Updated 3/82)**

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.

*[Order the Series 100/Graphics Software Update Kit to obtain the new Graphics manuals plus the latest software.]*

---

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

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.

*[Order the Series 100/Word Software Update Kit to obtain the new Word manuals plus the latest software.]*

---

**BASIC/125 Reference Manual  
(7/81)**

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".

\*Table 9-5 (pg. 9-41) should read:

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



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**System Reference Manual (7/81)**

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".

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**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 AMOUNT[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."

# Ordering Information—U.S.

## Courses, Books, and *Communicators*

Training courses, books, and *Communicator* copies are available to assist you in making the best use of your Series 100 system.

### HP-Given Courses



Hewlett-Packard provides Series 100 classroom training at HP Customer Training Centers:

- For users who are new to computers, the one-day *Series 100/Word Course* provides an introduction to the Series 100 and the use of Series 100/Word.  
35042W Series 100/Word Course ..... \$130
- The two-day *Series 100 User Course* provides an introduction to the Series 100 and the use of Series 100/Word; the second day covers Series 100/Graphics, Series 100/VisiCalc, and Series 100/DSN/Link.  
35042B Series 100 User Course ..... \$260
- Programmer training is provided by the five-day *Series 100 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 Series 100 Program Development Course ..... \$800

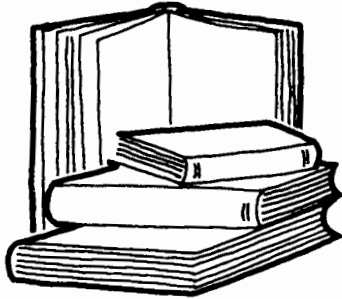
These courses are taught at an HP Training Center using HP-provided equipment; they can also be taught at your facility using your own systems. To order, call your HP Sales and Service Office.

### Dealer-Given 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.

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## Books on Computing



Here are several computer books which we have found helpful. They are available from bookstores, HP Personal Computer Dealers, or directly from HP's Computer Supplies Distribution Center.

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**BASIC—Second Edition** Albrecht, Finkel, and Brown; Wiley & Sons, 1978  
Suitable for the novice who has never programmed before. Every BASIC command is explained using a short working program and then illustrated in a variety of business applications. It should be remembered that BASIC varies slightly from computer to computer, so users should use their system's BASIC reference manual in conjunction with this book.

HP Product Number 92233D ..... \$10

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**Osborne 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 ..... \$20

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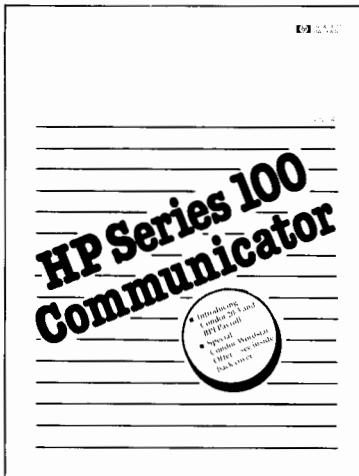
**VisiCalc: Home and Office Companion** Castlewitz and Chisausky with Kronberg; Osborne-McGraw Hill, 1982  
A book for both beginners and experts. For the novice, it contains 50 models that can be used immediately for personal and business applications. For the experienced user, it is a source of new 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 ..... \$21

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**Computer Networks** Tenenbaum; 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 ..... \$35



## Communicator Back Issues



The *Series 100 Communicator* carries articles which increase your productivity and improve your system knowledge.

- In the U.S., *Communicator* back issues are available through your Series 100 Dealer or they may be ordered by telephone or mail from HP's Computer Supplies Distribution Center.
- Outside the U.S., they are available through your Series 100 Dealer or your HP Sales and Service Office.

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—HP 9135 File Transfer”
- “Electronically Reading a Disc Reference Number”

Series 100 Communicator Issue #1—U.S. 5955-3930	\$ 4*
Series 100 Communicator Issue #1—Intl. 5955-3937	\$ 4*

### 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”

Series 100 Communicator Issue #2—U.S. 5955-3943	\$ 4*
Series 100 Communicator Issue #2—Intl. 5955-3947	\$ 4*

*\*If 20 or more assorted Communicator issues are ordered from HP at the same time, the price is discounted by 20%.*

**Issue #3 includes the following major articles:**

- “Disc Formats on the HP Series 100”
  - “New CP/M Compatible Software Catalog”
  - “Non-Series 100 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 9121 Disc Drive with Your HP 125A”
- Series 100 Communicator Issue #3—U.S. 5957-6203      \$ 4\*
- Series 100 Communicator Issue #3—Intl. 5957-6213      \$ 4\*

**Issue #4 includes the following major articles:**

- “International System Summary”
  - “Condor News”
  - “Introducing BPI Payroll”
  - “Comparing BPI and Peachtree Accounting”
  - “dBASE II”
  - “Two Tax Planning Packages”
  - “Printing Mailing Labels from Condor”
  - “More on HPMail and the Series 100”
  - “File Transfers Using PIP”
  - “Accessing a Plotter from BASIC”
- Series 100 Communicator Issue #4—U.S. 5957-6204      \$ 4\*
- Series 100 Communicator Issue #4—Intl. 5957-6214      \$ 4\*

**Additional copies of this current issue are also available:**

- Series 100 Communicator Issue #5—U.S. 5957-6205      \$ 4\*
- Series 100 Communicator Issue #5—Intl. 5957-6215      \$ 4\*

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**Communicator Subscriptions**

You may subscribe to the *Series 100 Communicator* by ordering the HP 45530N Software Notification Service from your local Hewlett-Packard Sales and Service Office. Ask for “Computer Products Order Processing.”

Series 100 Software Notification Service (1 year) . . . . . \$24

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*\*If 20 or more assorted Communicator issues are ordered from HP at the same time, the price is discounted by 20%.*

## Ordering Software Packages



Here is an up-to-date list of the Series 100 software packages available from Hewlett-Packard. For updates to software products you already have, refer to the next section—"Ordering Updated Software and Manuals."

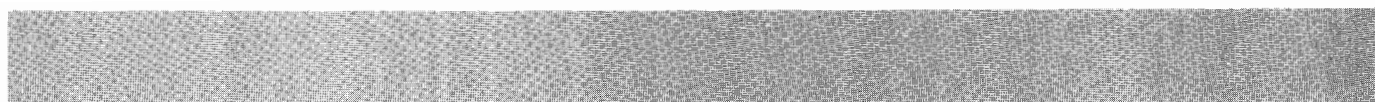
To add one of the software packages to your system, order a product and media option as shown. Be sure to specify one of the three media options—630, 650, or 680.

- In the U.S., Series 100 software packages are available through your Series 100 Dealer or they may be ordered by telephone or mail from HP's Computer Supplies Distribution Center.
- Outside the U.S., they are available through your Series 100 Dealer or your HP Sales and Service Office.

	Description	Product No.	Option	Price
<b>Series 100 Application Software</b>	*Series 100/VisiCalc®	45531B		\$200
	Software on: 3.5" Micro-Disc		630	N/C
	5.25" Mini-Disc		650	N/C
	8" Flexible Disc		680	+ 25
	*Series 100/Graphics	45532B		\$200
	Software on: 3.5" Micro-Disc		630	N/C
	5.25" Mini-Disc		650	N/C
	8" Flexible Disc		680	+ 25
	*Series 100/Word	45533B		\$500
	Software on: 3.5" Micro-Disc		630	N/C
	5.25" Mini-Disc		650	N/C
	8" Flexible Disc		680	+ 25
	*Series 100/DSN/Link	45534B		\$300
	Software on: 3.5" Micro-Disc		630	N/C
	5.25" Mini-Disc		650	N/C
	8" Flexible Disc		680	+ 25
	*Series 100/BASIC	45535A		\$330
	Software on: 3.5" Micro-Disc		630	N/C
5.25" Mini-Disc		650	N/C	
8" Flexible Disc		680	+ 25	
Series 100/Programming Package	45536A		\$ 80	
Software on: 3.5" Micro-Disc		630	N/C	
5.25" Mini-Disc		650	N/C	
8" Flexible Disc		680	+ 25	

\*Supported on single-disc system.

Series 100/Condor™ 20-1	45550A		\$300
Software on: 3.5" Micro-Disc		630	N/C
5.25" Mini-Disc		650	N/C
8" Flexible Disc		680	+ 25
Series 100/Condor 20-2	45550E		\$600
Software on: 3.5" Micro-Disc		630	N/C
5.25" Mini-Disc		650	N/C
8" Flexible Disc		680	+ 25
Series 100/Condor 20-3	45550H		\$995
Software on: 3.5" Micro-Disc		630	N/C
5.25" Mini-Disc		650	N/C
8" Flexible Disc		680	+ 25
Series 100/Condor 20-1 to 20-2 Upgrade Kit	45550K		\$350
Software on: 3.5" Micro-Disc		630	N/C
5.25" Mini-Disc		650	N/C
8" Flexible Disc		680	+ 25
Series 100/Condor 20-2 to 20-3 Upgrade Kit	45550N		\$450
Software on: 3.5" Micro-Disc		630	N/C
5.25" Mini-Disc		650	N/C
8" Flexible Disc		680	+ 25
*WordStar®/100	45560A		\$500
Software on: 3.5" Micro-Disc		630	N/C
5.25" Mini-Disc		650	N/C
8" Flexible Disc		680	+ 25
SpellStar™/100	45561A		\$250
Software on: 3.5" Micro-Disc		630	N/C
5.25" Mini-Disc		650	N/C
8" Flexible Disc		680	+ 25
*MailMerge™/100	45562A		\$150
Software on: 3.5" Micro-Disc		630	N/C
5.25" Mini-Disc		650	N/C
8" Flexible Disc		680	+ 25
Series 100/BPI General Accounting	45552A		\$450
Software on: 3.5" Micro-Disc		630	N/C
5.25" Mini-Disc		650	N/C
8" Flexible Disc		680	+ 25
Series 100/BPI Payroll	45553A		\$400
Software on: 3.5" Micro-Disc		630	N/C
5.25" Mini-Disc		650	N/C
8" Flexible Disc		680	+ 25

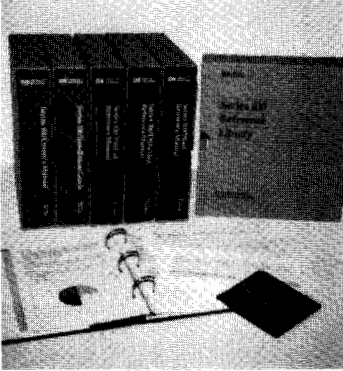


	Series 100/MicroPlan™	45670A		\$500
	Software on: 3.5" Micro-Disc		630	N/C
	5.25" Mini-Disc		650	N/C
	8" Flexible Disc		680	+ 25
	MicroPlan Consolidation	45671A		\$300
	Software on: 3.5" Micro-Disc		630	N/C
	5.25" Mini-Disc		650	N/C
	8" Flexible Disc		680	+ 25
<b>Standard CP/M® Application Software for the Series 100</b>	<b>*MILESTONE™</b>	45580A		\$295
	Software on: 3.5" Micro-Disc		630	N/C
	5.25" Mini-Disc		650	N/C
	8" Flexible Disc		680	+ 25
	DATEBOOK II™	45581A		\$295
	Software on: 3.5" Micro-Disc		630	N/C
	5.25" Mini-Disc		650	N/C
	8" Flexible Disc		680	+ 25
	PERSONAL DATEBOOK™	45582A		\$150
	Software on: 3.5" Micro-Disc		630	N/C
	5.25" Mini-Disc		650	N/C
	8" Flexible Disc		680	+ 25
	dBASE II™	45583A		\$700
	Software on: 3.5" Micro Disc		630	N/C
	5.25" Mini-Disc		650	N/C
	Aardvark Professional Tax Plan	45585A		\$350
	Software on: 3.5" Micro Disc		630	N/C
	5.25" Mini-Disc		650	N/C
	Aardvark Personal Tax Plan	45586A		\$140
	Software on: 3.5" Micro Disc		630	N/C
	5.25" Mini-Disc		650	N/C

*\*Supported on single-disc system.*



## Ordering Updated Software and Manuals



Software Update Kits contain the latest software and any manuals or manual updates issued since the original manual; they are provided at a nominal charge in exchange for your original master disc.

To replace damaged media, Software Update Kits are available for all Series 100 software packages—including the products which have not been updated. Refer to the next section of this *Communicator* for media replacement ordering information.

If a manual is updated independently of the software, the manual update is automatically sent to subscribers on the corresponding HP System Information Service (SIS). Since each of the new 5½"x8" manuals requires a matching version of the associated software, they are made available as Software Update Kits.

- 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.

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### Operating System (Current Version A.01.40)

#### —Operating System and Utility *Upgrade Kit*

If you have an Operating System disc labeled "HP 125" (rather than "Series 100"), order this kit to obtain the new 5½"x8" Owner's and 125B Installation Manuals, the improved A.02.00 WELCOME utility, the single-disc A.02.00 COPY utility, the single-disc INSTALL utility, the new fixed disc BACKUP utility, and the new Series 100 Computer Tutor.

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.

#### Series 100 Op Sys & Utility *Upgrade Kit*:

3.5" Micro-Disc .....	45900-13800	\$ 76*
5.25" Mini-Disc .....	45900-15800	\$ 76*
8" Flexible Disc .....	45900-18800	\$ 76*

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 the A.01.20 version (labeled “Series 100”), we have an Operating System *Update Kit* which provides an A.01.40 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.

Series 100 Op Sys & Utility *Update Kit*:

3.5" Micro-Disc . . . . .	45900-13810	\$ 42*
5.25" Mini-Disc . . . . .	45900-15810	\$ 42*
8" Flexible Disc . . . . .	45900-18810	\$ 42*

For each kit ordered, return an original A.01.20 Operating System disc. (Use your working copy until the new disc arrives.)

—Additional copies of the Owner’s and Installation Manuals are available. If you do not have the new Operating System, we recommend that you purchase the entire Software Update Kit—so that your new manuals will match your software.

Series 100 Owner’s Manual Set . . . . .	5061-3211	\$ 32
HP 125B Installation Guide Kit . . . . .	5061-3212	\$ 32
HP 120A Installation Guide Kit . . . . .	5061-3213	\$ 32

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*\*For each kit ordered, return one original disc as described in the text. (Use your working copy until the new disc arrives.) If 20 or more assorted Software Update or Upgrade Kits are ordered at the same time, the price is discounted by 35%; no other discounts apply to these kits.*

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**Series 100/VisiCalc**  
**(45531B—Current Version**  
**A.02.00)**

Order this kit to obtain *Getting Started With Series 100/VisiCalc*, the *Series 100/VisiCalc Reference Manual*, the *Series 100/VisiCalc Quick Reference Card*, and the latest version of the software.

Series 100/VisiCalc Upgrade Kit:

3.5" Micro-Disc . . . . .	45531-13800	\$ 42*
5.25" Mini-Disc . . . . .	45531-15800	\$ 42*
8" Flexible Disc . . . . .	45531-18800	\$ 42*

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

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Additional copies of the *Series 100/VisiCalc Quick Reference Card* are available in packages of five:

Series 100/VisiCalc Quick Reference Kit . . . .	45531-60002	\$ 15
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**Series 100/Graphics**  
**(45532B—Current Version**  
**A.01.02)**

If you have version A.01.01, order this kit to obtain the *Series 100/Graphics Reference Manual*, the *Series 100/Graphics Quick Reference Card*, and the latest version of the software.

If you have version A.01.00, ordering this kit will also add the 7470A plotter to your system.

Series 100/Graphics Upgrade Kit:

3.5" Micro-Disc . . . . .	45532-13800	\$ 42*
5.25" Mini-Disc . . . . .	45532-15800	\$ 42*
8" Flexible Disc . . . . .	45532-18800	\$ 42*

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

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Additional copies of the *Series 100/Graphics Quick Reference Card* are available in packages of five:

Series 100/Graphics Quick Reference Kit . . . .	45532-60002	\$ 15
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**Series 100/Word**  
**(45533B—Current Version**  
**A.02.02)**

Order this kit to obtain *Getting Started With Series 100/Word*, the *Series 100/Word Reference Manual*, the *Series 100/Word Quick Reference Card*, and the latest version of the software.

Series 100/Word Upgrade Kit:

3.5" Micro-Disc . . . . .	45533-13800	\$ 42*
5.25" Mini-Disc . . . . .	45533-15800	\$ 42*
8" Flexible Disc . . . . .	45533-18800	\$ 42*

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

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Additional copies of the *Series 100/Word Quick Reference Card* are available in packages of five:

Series 100/Word Quick Reference Kit . . . . .	45533-60004	\$ 15
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**Series 100/DSN/Link  
(45534B—Current Version  
A.01.00)**

If you have Link/125, you may wish to upgrade to Series 100/DSN/Link.

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 for your HP 125" in *Communicator* Issue #3 for details).

Series 100/DSN/Link Upgrade Kit:

3.5" Micro-Disc . . . . .	45534-13810	\$150*
5.25" Mini-Disc . . . . .	45534-15810	\$150*
8" Flexible Disc . . . . .	45534-18810	\$150*

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

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**Series 100/BASIC  
(45535A—original version  
A.05.21)**

Additional copies of the *Series 100/BASIC Quick Reference Card* are available in packages of five:

Series 100/BASIC Quick Reference Kit . . . . .	45535-60001	\$ 15
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*\*For each kit ordered, return one original disc as described in the text. (Use your working copy until the new disc arrives.) If 20 or more assorted Software Update or Upgrade Kits are ordered at the same time, the price is discounted by 35%; no other discounts apply to these kits.*

## Replacing Damaged Media



To replace damaged media after the warranty period, Software Update Kits are available for all Series 100 software packages—including the products which are still at the originally-released revision level. The kits contain the latest software and any manuals or manual updates issued since the original manual; they are provided at a nominal charge in exchange for your original master disc.

- 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, Note *
		3.5" Disc	5.25" Disc	8" Disc	
Op Sys	A.01.40	45900-13810	45900-15810	45900-18810	1,4
VisiCalc	A.02.00	45531-13800	45531-15800	45531-18800	1,4
Graphics	A.01.02	45532-13800	45532-15800	45532-18800	1,4
Word	A.02.02	45533-13800	45533-15800	45533-18800	1,4
Link/125	A.02.00	45534-13800	45534-15800	45534-18800	1,6
DSN/Link	A.01.00	45534-13820	45534-15820	45534-18820	1,7
BASIC	A.05.21	45535-13800	45535-15800	45535-18800	1
Prog. Pkg.	A.01.00	45536-13800	45536-15800	45536-18800	1
Condor 20-1	A.02.00	45550-13800	45550-15800	45550-18800	1
Condor 20-2	A.02.00	45550-13801	45550-15801	45550-18801	1,5
Condor 20-3	A.02.00	45550-13802	45550-15802	45550-18802	1,8
BPI G/A	A.01.00	45552-13800	45552-15800	45552-18800	2
BPI Payroll	A.01.00	45553-13800	45553-15800	45553-18800	2
WordStar	A.01.00	45560-13800	45560-15800	45560-18800	1
SpellStar	A.01.00	45561-13800	45561-15800	45561-18800	1
MailMerge	A.01.00	45562-13800	45562-15800	45562-18800	1
MicroPlan	A.01.00	45670-13800	45670-15800	45670-18800	1
MicroPlan Consol.	A.01.00	45671-13800	45671-15800	45671-18800	1

### Key to Price Codes:

- 1—\$42.00
- 2—\$58.00
- 3—\$76.00

See notes on next page.

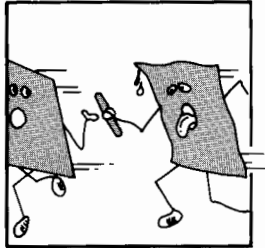
\*For each kit ordered, return one original disc as described in the text. (Use your working copy until the new disc arrives.) If 20 or more assorted Software Update or Upgrade Kits are ordered at the same time, the price is discounted by 35%; no other discounts apply to these kits.

Notes:

- 4—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 to A.01.40 is also available—refer to details under “Ordering Updated Software and Manuals”, earlier in this section.
- 5—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.
- 6—Link/125 disc exchanged for Link/125 disc. Refer to “Ordering Updated Software and Manuals” to *upgrade* Link/125 to Series 100 DSN/Link.
- 7—Series 100/DSN/Link disc exchanged for Series 100/DSN/Link. Refer to “Ordering Updated Software and Manuals” to *upgrade* Link/125 to Series 100 DSN/Link.
- 8—Either a Condor 20-3 disc or a Condor 20-2 to 20-3 Upgrade disc may be exchanged for the Condor 20-3 disc.

## Supplies and Accessories

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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*

- In the U.S., for current prices or a copy of the catalog, call 800-538-8787. In California, Alaska, Hawaii call (408) 738-4133.
- Outside the U.S., call your local sales office or one of the following numbers:
  - U.K.           0734-792868 or -792959
  - Germany   07031/142-829
  - Netherlands 020-470639

Authorized HP Dealers generally stock quality Hewlett-Packard supplies and can provide them immediately.

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### For Computers...

#### **HP 120 Personal Office Computer**

13269P Carrying Case (For HP 120 with Standard Keyboard plus 9121 disc drive; or HP 120 with extended keyboard.)

92171K Keyboard Park

92171T System Turntable

92171V Display Tilt Unit

92171W Display Swivel Unit

#### **HP 125 Personal Office Computer**

92160B Thermal Paper Black Print (Box of 24 rolls)

92171R Keyboard Palm Rest (for extended keyboard)

92171T System Turntable

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### For Disc Drives...

#### **HP 82901M/S, 82902M/S, 9130A, 9135A 5½ inch Disc Drive**

92190A 5¼ inch Flexible Discs, Double Sided (Box of 10 discs)

#### **HP 9121D/S, 9133A 3½ inch Disc Drive**

13269T Disc Drive Case (for 9121)

92191A 3½ inch Flexible Discs (Box of 10 discs)

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### 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)

#### **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 (1 each)

92263-series Plastic Print Wheels 98 character, International (1 each)

**HP 2631A/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 Printer**

92160B Thermal Paper Black Print (Box of 24 rolls)

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 (Box of 2400 sheets)

92154P Print Head

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**For Plotters...**

**HP 7225A/B, 7470A Plotter**

5060-6810 Multi Color Pen Package (Package of 4 pens; 1 each red, blue, green and black)

9280-0589 Plotter Paper English (Pad of 50 small sheets)

9280-0588 Plotter Paper Metric (Pad of 50 small sheets)







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I T E M	Product Number	Description	Quantity	Unit Price	Amount
1				.	.
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3				.	.
4				.	.
5				.	.
6				.	.
7				.	.

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Tax Exempt or Resale Number

Handling Charge	<b>\$3.50</b>
Subtotal	.
State/Local Taxes	.
<b>TOTAL</b>	.

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