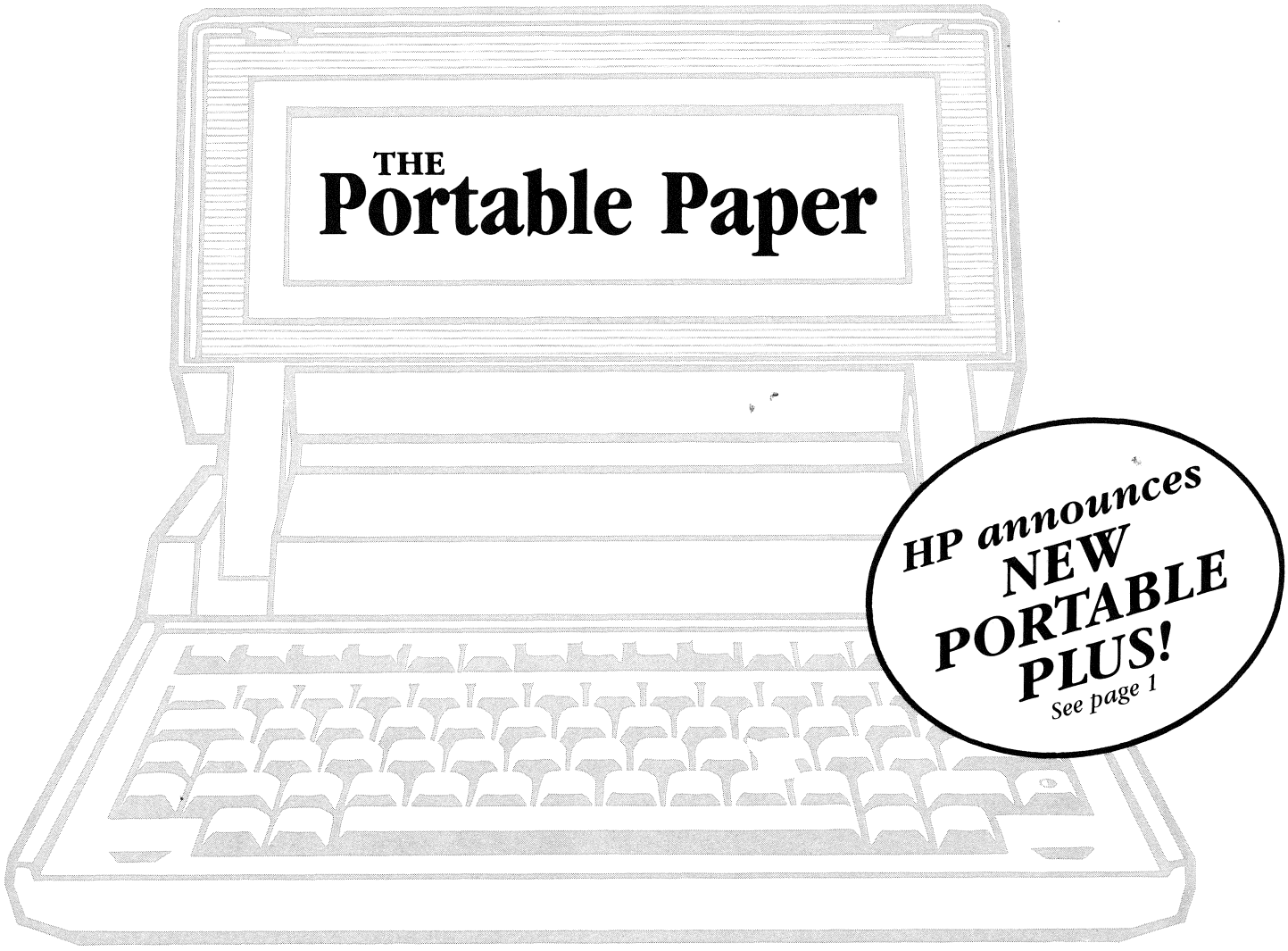
Volume 1, Number 3 *The HP Portable/Portable Plus Users Newsletter* *May / June, 1986*

THE Portable Paper



Special Word Processing Issue

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PUBLISHER'S MESSAGE

We all write. On computers we "process" words. Word processing is the one application common to all HP Portable users. In this issue we examine word processing on both Portables.

Once again thanks goes to our staff who, on their word processors, created the articles for this issue. Our staff is you. Even our superb regular contributing editors, Ed Keefe and Cliff Looyenga, are readers like yourself, giving their time to share the highlights of their many hours of Portable experience. Many of you, our staff out there, have responded to a phone call with a needed article.

A number of you have sent us excellent material, some of which, we have not had a chance to acknowledge or publish. Please keep sending us your insights, tricks and experience, on disk if possible. The appreciation our readership has expressed for our publication goes back to you who have contributed.

Our product line is expanding, and we think you will find us quicker filling your orders as we come to understand the way inventory and order processing work. We will do our best to get you your products two days after we receive your order.

We now have about 1000 subscribers and growing. We estimate only 15% of Portable users have heard of us. Please continue to tell others or send us their names. If you get our next promotional mailing, pass it on.

Corporate and government users, tell your colleagues about us through your internal or electronic mail system. Talk to your buyer and mention that we have corporate rates. Help your organization enjoy the fruits of its major investment in HP Portables by giving *The Portable Paper* to every Portable user. Give us a call.

Next issue is a Communications issue. Send in instructions for communicating with your favorite public bulletin boards, subscription services, and other machines. Tell us your tips and experiences of Portable and Portable PLUS built-in (ROM based) or A drive (RAM based) communications software. What has been your experience with built-in or external Portable and Portable PLUS modems?

Enjoy the Spring.

THE PORTABLE PAPER
Volume one/Number three
May/June 1986

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Letters

Do More With Lotus

Lotus is obviously one of the major highlights of The Portable; hence, I trust its section of *The Portable Paper* will develop into a major highlight in itself.

Terry Jensen, Modesto, CA

[Ed—We have received a number of comments from readers stating there are so many sources for Lotus information, that we should not allot Lotus too much space. The same can be said for DOS. In general, we try to gear our Lotus and DOS articles to topics of particular interest to Portable users. We are interested in feedback from our audience on this issue.]

Why Use PROMPT?

It may indicate that I am missing the point, but I have never understood the facination of using the DOS **prompt** command to do simple things such as the redefinition of function keys. The definition of function key 7 as a destructive backspace for HP110 MemoMaker is a prime example. The easiest way to do this (far fewer key strokes and quicker operation of the .BAT file) is to implant the redefinition string directly into the .BAT file as follows:

copy con mm.bat
***esc*&&f0a7k0d4L*esc*&D*esc*&P**
memomakr^Z

esc = press the escape key
^Z = press the ctrl and Z keys at the same time

Note that only one **&** should show up on your screen. To start MemoMaker simply type mm **RETURN** and you will be in MemoMaker with the function key 7 (labelled **HELP**) operative as the destructive backspace.

In general, function key redefinition can be carried out this way without tampering with the prompt command.

Nigel S. Ball, Victoria, Australia

Aid For The Almost Blind

After one year of hunting I found a very good solution to the screen lighting problem. It is a Finnish-made desk lamp with a 6-inch double fluorescent tube (that is why it works). It needs to be positioned approximately 8 to 9 inches above the Portable console with the screen pushed almost all the way back. It lights up the entire screen with no reflection. The product is World-Lite by Dazor –2702.

Connie Doolittle, San Anselmo, CA

[Ed—Your local distributor can be found by writing World-Lite, 4455-99 Duncon, St. Louis, MO 63110 or calling (314)652-2400. Retail: $69.60]

110% Making more of your Portable

by Hal Goldstein

"NEXT GENERATION" PORTABLE PLUS NOW AVAILABLE

A new version of The Portable Plus featuring an improved screen and increased internal memory is available from Hewlett Packard as of April 1. Owners of The Portable Plus (not the HP110 Portable) will be able to upgrade their machines.

Hewlett Packard says the new display makes for "three times better viewing." The background is yellow green with blue characters as opposed to dark grey on grey. An HP spokeswoman (code named Ramboette) told us "it sounds horrible, but the display is so much more readable, and you get accustomed to it right away."

The PLUS will now come configured with either 256K or 512K of internal memory rather than the 128K on the original machine. That means that with the use of memory cards, the machine can contain a maximum of 1,280K bytes of RAM.

Current Plus owners will be able to upgrade their machines by sending their PLUS directly to the factory or taking it to their local service center. A factory upgrade is less expensive, but it requires an appointment by phone and a 10-day turn around time.

Here is the pricing information.

THE NEW PLUS PRICING
256K Memory $2695
256K Memory, Internal Modem $3190
512K Memory $3395
512K Memory, Internal Modem $3890

This Issue's Word Processing Products

Below is a summary of product word processing product information discussed in this special issue of *The Portable Paper*.

Hewlett Packard Products

These products may be obtained through your HP dealer or through the HP Direct Marketing Division, 800-538-8787 (California, Alaska, Hawaii 408-738-4133).

MULTIMATE ROM: PLUS
HP 45554K option 400, $495.

MEMOMAKER/TIME MANAGER ROM UPDATE REVISION A.02.00: PLUS
Exchange assembly, HP 45505-64002, $60.
The order must be accompanied by the back cover from the Time Management manual. This is the heavy, three-color sheet with nine index items down the left side and the number 45504-9002.

MICROSOFT WORD ROM: PLUS
45549K Option 400, $375.

MICROSOFT WORD: HP110
45474D, $375

WORDSTAR: HP110
45400D, $350.

THE WRITER
35153D, $49.95

THE SPELLER
35154D, $49.95

Personalized Software Products

These two products may be ordered by using the coupon in the back of this issue or by calling *Personalized Software, PO Box 869, Fairfield, IA 52556, (515) 472-6330.*

PRINTERTALK VERSION 2A: HP110, PLUS
$49.95, *The Portable Paper* subscribers pay $44.95 or $59.95 for PrinterTalk and Format110. Format110 owners pay $19.95. ($4 shipping).
Owners of PrinterTalk versions 1.2 or earlier may upgrade by sending in Master disk and $.39 stamped self addressed envelope or by sending $7.50.

FORMAT110: HP110, PLUS
$39.95, *The Portable Paper* subscribers pay $35.95 or $59.95 for PrinterTalk and Format110. PrinterTalk owners pay $19.95. ($4 shipping).

Emerging Technology

EDIX
4760 Walnut St., Boulder, CO 80301, (303) 447-9495, $195

Oasis Systems

THE WORD PLUS
2765 Reynard Way, San Diego, CA 92103, 619-453-5711, $120

Price Reductions:
128K Memory card $350
Memory Drawer $495
FACTORY PLUS UPDGRADE COSTS (THROUGH SEPT. 30, 1986)
Display Upgrade: $350
Upgrade from 128K to 512K: $1100

To upgrade you MUST first call for an appointment: 800-782-8884. (Oregon, Alaska call collect 503-752-7793.) Then send it to: *HP Service Center, 1030 NE Circle Blvd, Corvallis, OR 97330, ATTEN: Portable PLUS Upgrade.*

PrinterTalk, Turbo Pascal Updates

The Portable Paper editors Hal Goldstein and Ed Keefe have joined forces on several HP Portable Projects. As discussed in the A Drive article on the MemoMaker enhancers PrinterTalk and Format110, both products will be made available from Personalized Software. Owners of one of the products can purchase the other for $19.95. *Portable Paper* subscribers can purchase both products for $59.95.

There is a new release of PrinterTalk, version 1.2A. The new version works identically to version 1.2; however, the size of the product has been reduced almost 20%. PrinterTalk is now 39K and Mini PrinterTalk, 25K. Owners of the product can send their master disk and a stamped self-addressed envelope to Personalized Software for a free update. If they prefer, Personalized Software will send an updated disk for $7.50.

In a second joint effort Ed Keefe has put together a disk of public domain Turbo Pascal software modified or created for the HP110 Portable and Portable PLUS. These complete programs are labeled as "beginning", "intermediate" and "advanced." The subject matter varies from business statistics to system utilities to games to Portable keyboard redefinition.

In addition, *The Portable Paper* Wizard Cliff Looyenga has contributed a number of Turbo routines written explicitly for The Portable and Portable PLUS, including sound, graphics, games, HP-IL, and system utilities code. By the time you receive this issue, the disk should be ready to distribute. We have been waiting on Cliff, who keeps promising to send his collection. Being as prolific and creative as he is, Cliff always has yet another program that he feels should be on the disk. It will be available from Personalized Software for $49.95, $44.95 if you subscribe to *The Portable Paper*, and $39.95 if you bought Turbo Pascal from us.

Ed Keefe has also modified the Turbo Toolbox file managing program and the Turbo Tutor lister to fit on the 16-line HP110 display. We will put those files on a disk for any *The Portable Paper* subscriber if you send us a formatted disk with a self-addressed stamped envelope (and proof of purchase if you did not buy the programs from Personalized Software). If you prefer, send us $7.50 (and proof of purchase). These files now come with the Holiday Pack when you buy from us.

Finally, Borland International has extended their Holiday Pack offer (Turbo Tutor, Turbo Toolbox, and Turbo Pascal) at least through July 31, 1986. That means we will also extend our Holiday Pack and Holiday Pack / Norton offer through at least July 31 (see the centerspread ad or the coupon at the end of this issue).

Two Products for Portable Users

Gerald Fuller of Williston, ND writes, "I wanted to tell other *Portable Paper* readers about a company that I think deserves recognition. It is "Cabbage Cases," 2458 Wood Ave, Columbus, OH 43221, (614) 486-2495. They make custom cases for computers and other electronic equipment. I called them about making a case for my HP disk drive and ThinkJet printer, and they came up with a great solution. They used an inner case that I can set on my desk. The drive is on bottom; then there is a two-inch paper storage tray; and then the printer goes on top. The drive and printer are attached to the inner case using velcro, so that everything stays together, even with paper loaded and all the cables left hooked up. All this fits inside a fitted foam outer shipping case that I seatbelt into the back seat of my pick-up for use in the oil field. It has real quality craftsmanship, is built to last, and looks good—all at a very reasonable price (in fact, lower than their quoted price).

"Another company that may be of interest is AXONIX, 417 Wakara Way, Salt Lake City, UT 84108, (801) 582-9271. They can put an electroluminescent backlight for the Portable and Portable PLUS. They also make an HP-IL parallel interface converter and cigarette and solar battery rechargers. They have some battery powered printers. I have not yet done any business with this company but thought others might like to keep an eye out for new products from an interesting company."

HP9114 Blues Revisited

THE NEW HP9114B FROM HP GREELEY

Hewlett Packard has upgraded their HP9114 disk drive. Kim Willis of HP Greeley told us that the battery will last twice as long in the HP9114B than in the HP9114A. For continuous usage (100% duty cycle) according to HP specifications, the HP9114B lasts 1.8 hours with the recharger plugged in and 1 hour without the recharger. The unit comes with a new battery pack, part number 88014B. The new battery works in both HP9114's; however, it will not last longer in the HP9114A.

The one new feature many Portable users will appreciate is the "fuel gauge." The LED "Fuel Gauge" on the front panel indicates the state of battery charge, allowing you to track battery life.

HP9114 POWER SUPPLY

By Norman Brown

In the last few months we have been researching the possible solutions to the power consumption problems of the HP9114 disk drive. Issue 2 of *The Portable Paper* outlined the problem: the HP9114 only runs off its battery—it cannot run off an electrical outlet. The consequence is that the HP9114 gets at most 40 minutes of continual usage before running out of gas.

Of the three solutions we developed, the one we discuss in this issue is the simplest. We describe how to build a power supply that plugs into a wall outlet and connects directly to the HP9114 (minus its battery pack). In the next *The Portable Paper* we will discuss how to modify the bat-

tery pack so that it does not have to be removed. If you don't have the time, knowledge, or desire to mess with this do-it-yourself solution, I'll build one for you. See the last paragraph for details.

We found a surplus power supply that was rated 6VDC at 2.5 amps. Any regulated power supply from 5.5 to 7.0VDC at 1.0 amp will do. We bought the power supply from *JAMECO Electronics, 1355 Shoreway Road, Belmont, CA 94002 (415) 592-8097*. The model number is **EMA-5/6B**. It has two DC power taps, one at 5VDC and the other at 6VDC. We need the 6V tap.

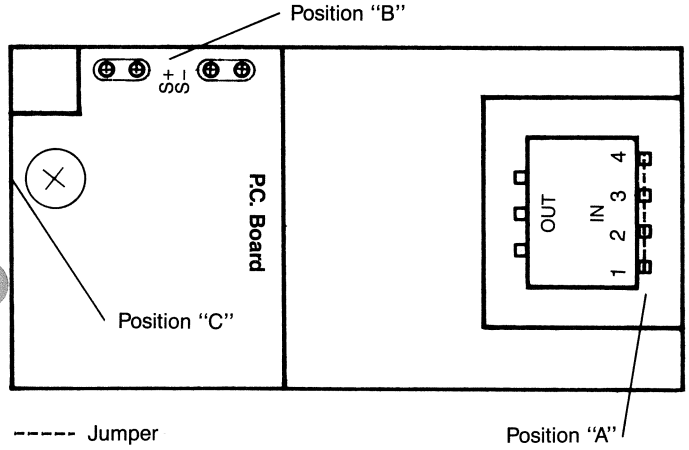
The instructions for hard-wiring the AC line cord and the 6V tap are included in the specifications that come with the power supply. This power supply comes without a box. You can buy a ventilated utility box from Radio Shack or any other electronics supply house and mount it inside by attaching the body of the power supply to the frame of the utility box using a couple 1/2 inch 10-32 machine screws and nuts. When installing the power supply in your utility box, mount it so that the transformer taps are easily accessible. Be sure to install a strain relief for both the AC line cord and the cord for the DC tap.

You will need to add two additional items to get you set up for your HP9114. First, you will need to install an in-line fuse in your DC power cord. They sell various types and sizes at Radio Shack or any electronics supply store. Your power supply should be fused at 1.5 amps. Be sure to install your in-line fuse on the positive side of the DC power cord with crimp connectors. If you use shrink tubing on all of your wire connections, it will give you a more professional look and provide more protection.

Secondly, you will need a Cinch-Jones connector, part # S-302-CCT. This too may be obtained from your local electronics supply house. If, like us, you live in a rural area, you will have to rely on a mail order house. We bought ours from *Newark Electronics, 4403 First Ave SE, Cedar Rapids, IA 52402, (319) 393-3800*. They have 160 branches nationwide.

The only problem with mail order houses is that they usually require a minimum order of $25. So try to find it locally if you can. When you attach your DC power cord to the Cinch-Jones connector, be sure to solder the positive side to terminal #2 on the connector; if you look closely, you will see a number beside each post.

Below is a rough drawing of the power supply and my own instructions for attaching the AC line and the DC power cord.



HP PORTABLE RELATED PRODUCT

Improve your typing skills with

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■ **Typing test.** Use the built-in test or create your own!

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$39.95 for Portable Paper subscribers

15-day no-risk trial: If, after 15 days you are dissatisfied with this product for any reason, you may return it for a full refund.

■ To order, use postage-paid order form enclosed in this issue, or send check or credit card number to: Personalized Software P.O. Box 869, Fairfield, IA 52556 515/472-6330

*Runs on the HP110 Portable, Portable Plus, and Touchscreen

At position "A" you will find the AC input terminals for the power transformer. The first thing you must do is set it up for 115V AC, which is the standard household voltage. This is done by hooking up a jumper across terminals 1 & 2. After 1 & 2 are done, hook up another jumper across terminals 3 & 4.

Once this is done, attach your AC line cord. At position "B" you will find four phillips head screws. Between the two inside screws you'll find the markings "S+" and "S-". This is the positive and negative tap for your DC power. Attach your DC power cord, making certain that the positive and negative orientation is maintained throughout or you're in for trouble.

The best way to attach your DC power cable is to install Stak-on terminal connectors on your power cable. This will insure a secure connection.

The output voltage adjustment is at position "C". After attaching a DC voltmeter to the DC output terminals, plug in the AC cord and take a meter reading. If the reading is not 6 volts, then adjust the poteniometer at position "C" until it reads 6 volts exactly. Once you have completed this you are ready to try out your power supply. Remove your HP9114 battery back and plug in your power supply where your battery pack was plugged in. Do so with all the power off.

Then plug in your AC cord and turn on your HP9114. From this point your only power concern will be with the power company.

To recap: you'll need the following materials: EMA-5/6 Power Supply; 6 ft. AC line cord; ¼ inch shrink tubing; 2 red cable connectors for 20 gauge or smaller; in-line fuse holder; 11/2 Amp fuse; 6 ft. 20 gauge Zip cord; Cinch-Jones connector #S-302-CCT; 2 spade type Stak-on connectors, Red; 2 strain relief; 2\ x 10-32 machine screws, lock washers, and nuts.

We required the following tools: 3/8 inch drill; various drill bits 1/8" to 3/8"; #1 point phillips screwdriver; #2 point phillips screwdriver; #2 tip slotted screwdriver; small pliers; one thin tip soldering iron; one roll 60/40 silver solder; combination wire strippers, cutters, crimpers; AC/DC Voltmeter; needle nose pliers.

I would like to thank Don Person for his help in finding a solution to the HP9114 dilemma. His article in the Nov/Dec 1985 issue of Professional Computing magazine was the basis for this simplest of our solutions.

If you have trouble building this power supply, send your problem in writing in care of *The Portable Paper*, and I will do my best to help you out.

By sending in the coupon in the back of the issue, you can order your assembled, tested, and finished product built by me through Personalized Software. For *The Portable Paper* subscribers the cost will be $129 ($145 non-subscribers). If you desire an additional modified battery pack that can remain in your HP9114, whether or not you are using the power supply, the cost is $199 ($225 for non-subscribers). We will discuss the modifications to the battery pack next issue.

Personalized Software is also selling complete HP9114A units including power supply for a substantial discount. Call or write for details.

Time Manager Upgrade

As we discuss in this issue's *MemoMaker B-Drive*, there is a MemoMaker/Time Manager Portable PLUS upgrade where many of the bugs in both programs have been fixed. At this time HP does not plan to release a corresponding Time Manager 2.0 for the HP110. Hewlett Packard has been most generous giving away Time Manager to Portable users. Let us hope HP will continue its generous policy by making this new release of Time Manager available to HP110 users. We will happy to distribute the new release.

Sideways and The Utilities Disks

There is some definite progress on the Sideways front (printing your elongated spreadsheets sideways). First of all, Paul Grimmer of New Orleans told us he got the Funk Software Sideways program (222 Third St., Cambridge, MA 02142, 617-497-6339) to work with his SERIAL ThinkJet printer in Epson mode from his HP110. He had to configure the program on his IBM PC to **coml** printer. Then he copied configuration file **sideways.dft** and the Sideways program to the HP110, and executed from DOS **sideways sample.prn** (**sample.prn** was the file to be printed sideways). "With the ThinkJet and the 110's 8086 processor, the program really rips along and the printer hardly stops at all between lines." However, Paul called back and said that for some strange reason, he could not duplicate the same results on two other HP110's in his office configured identically.

A slow sideways solution which works on the HP-IL ThinkJet printer requires two public domain programs. Program one turns the HP-IL ThinkJet into Epson printer emulation mode. Program two, a sideways program, can be run from either Portable and prints files sideways on the ThinkJet in Epson emulation mode. Perhaps Funk Software's Sideways and other printer programs will work with HP-IL ThinkJet in Epson emulation mode. I am not sure whether these programs are on CompuServe. We will make them available on our utilities disks in May.

We are still in the process of collecting, testing and documenting useful public domain programs (many written explicitly for The Portables). We will make these collections available as products by the next issue of *The Portable Paper*.

(Continued on page 30)

HP PORTABLE RELATED PRODUCT

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PRIVATE FILE

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**Plus shipping. See coupon in back of issue for free shipping offer.*

B Drive—Internal Software in ROM

MemoMaker B

Escaping ESCAPE Problems

For the uninitiated, escape sequences are sequences of characters beginning with the non-printable ESCAPE character. Escape sequences send directions to HP printers and screens, telling them such things as to change to compressed print. The HP engineer who rewrote the HP150 TouchScreen version of MemoMaker for the HP110 did not know of the HP150 MemoMaker method of embedding the escape character (pressing **CTRL [**). Leaving out the ability to embed the escape character in a MemoMaker from all accounts seems to have been an oversight.

THE PORTABLE ONLY

In response to the article "Creating A Backspace/Erase Key" in our first issue, several readers wanted to know of any other useful substitutions for the MemoMaker Help key. H.H. Michels of E. Hartford, CT asks a form of the classic question: How do you include ESCAPE sequences within HP110 MemoMaker? "Is it possible to send a half-line feed (**ESC =** in HP mode) to the ThinkJet printer from MemoMaker? It would be very convenient if one could define a function key to change to half line feed for a particular line. This would make it easy to handle superscripts and subscripts."

Has anyone discovered other useful ways of exploiting the fact that you can program at least one function key within MemoMaker? Can you do so using the **prompt** or **copy con** techniques discussed in the first two issues?

Has anyone discovered any way of breaking the MemoMaker-Escape sequence barrier? The problem is that there does not seem to be a way to send what you program into the function key to the printer. We will publish your findings.

For two products that solve the escape problem see the A drive PrinterTalk/Format110 article.

THE PORTABLE PLUS ONLY

Unfortunately, HP fixed the bug in Portable Plus MemoMaker that made for our issue 1 discussion on how to create a destructive backspace key within MemoMaker possible. However, the good news is that it is possible to embed an ESCAPE character in Portable Plus MemoMaker. Just type the **DEL ESC** key. Control characters are entered by typing **ctrl** and the letter.

When the ESC key is pressed, an inverse video **[** appears on the screen. It is actually a marker to MemoMaker that an escape character has been typed into the file; that escape character is only valid when MemoMaker prints the file. The DOS **print** command does not recognize it as an escape character. This method only works for files saved as **Document Files** and doesn't work for **ASCII** files.

PLUS MemoMaker/Time Manager Upgrade

The following information was supplied to us by Hewlett Packard.

A new version of the Portable Plus MemoMaker/Time Manager ROM has been released, and this new version will be available to existing owners as a low-cost exchange assembly. Customers who plan to use a Non-English Localization Kit will need to upgrade to Revision A.02.00. Other customers may wish to upgrade because of several bugs fixed in the new version. The most serious MemoMaker bugs are listed below. The cost is $60 and it can be ordered from the Direct Marketing Division as described in the product information box at the front of this issue.

BAD PORTABLE PLUS MEMOMAKER BUGS

1. Running Series 100 BASIC (or a few other less-common programs) always leaves the Portable Plus in an unusual state. If this happens, and the user then runs MemoMaker, the program will abort the first time the Tab key is held down. The user finds himself in PAM, and any unsaved memo is lost.

Workaround:

Always reboot after running BASIC, or before running MemoMaker (Hold down the **contrast** key for 10 seconds.)

2. After using MemoMaker's **Help** key, the memo has been partially overwritten by help messages, a sector of electronic disk has been trashed (resulting in "Data Error Reading Drive A"), or other unpredictable results have occurred.

A copy of the help messages is being written to an unknown memory location every time **Help** is used. Often no damage is done, but the likelihood of damage is higher in certain memory configurations or when the memo is very large.

Workaround:

Don't use **Help**.

3. Time Manager fails to find a match while searching a Notes file.

Workaround:

Never leave blank lines in the notes file, and always save the file as an ASCII (not Document) file. This can be done automatically if the user has a STARTUP.FMT file that puts MemoMaker in ASCII file mode.

4. After considerable usage, MemoMaker is suddenly unable to save or print the document.

Workaround:

Don't use the Get Format key, and don't attempt to print when the HP-IL printer is not properly connected and on-line. Doing either of these things five times causes the problem.

Be Careful Transferring Files Between MemoMakers

Stephen Barthold of Ann Arbor Michigan reports several anomalies important for those who transfer MemoMaker files between The Portable and Portable Plus. HP service

reps literally tore his HP110 apart trying to find the what they thought was a hardware cause of a disoriented MemoMaker and DOS. It turns out Dr. Barthold innocently had transferred his Portable Plus **startup.fmt** file (the default MemoMaker format file) to his HP110. For some inexplicable reason that caused the havoc.

The other thing Stephen mentioned to me was to be sure to save the Portable Plus MemoMaker file as an **ASCII** file rather than a **document** file before transferring the file to the HP110. A Portable Plus MemoMaker **document** file is a WordStar compatible file. The ramifications are that like Lotus **worksheet** files, MemoMaker **document** files use all 8 bits for each character and thus cannot easily be understood by other programs. In general, if you want to use a PLUS MemoMaker file in another program such as Lotus or 110 MemoMaker, save it as an ASCII file.

Enhance MemoMaker files using DOS

by: Michael C. Rhodes

My first exposure to MemoMaker was a big disappointment. My 16k ATARI-WRITER had more functions and versatility (automatic paragraph reformation, multiple copies, search and replace, printer code insertion, etc) than this 19K MemoMaker. I called Hewlett-Packard out of frustration and talked to someone who had anticipated my complaints. She said that advanced functions would muddy the simplicity of the program. She did add, however, that it was actually a mistake that MemoMaker did not allow printer code inclusion in the document (corrected in the HP110 PLUS version).

Having said that, I will have to admit that I use MemoMaker a lot, not because I like the program, but because it's always there when I need it. Described below are a few features that you can add to its meager bag of tricks.

Merging documents and adding printer codes can be accomplished if you use the DOS **copy** function. The **copy** command allows you to copy (merge) to a new file, bits and pieces of old files. With **copy con** you can make small files of printer codes and merge them with your documents in selected areas.

MAKING THE PRINTER CODE FILES...

To create the printer code files we use the **copy con** command (discussed in the first two issues of *The Portable Paper*). The *esc* character listed below is entered by pressing the *esc* key. Then press the **Shift** and the **&** key together. **^Z** stands for **CTRL z**. No space follows the *esc*.

Let's say you would like to have all headings printed in EXPANDED letters and text printed in NORMAL letters on your ThinkJet printer. We'll create two files called **bigprnt**, which will contain the EXPANDED font ThinkJet escape sequence, and **unbig**, which will contain the NORMAL font ThinkJet escape sequence. (Consult your printer manual for the various printer codes).

Enter from DOS:

COPY CON BIGPRNT *esc* **&k1S ^Z**

and

COPY CON UNBIG *esc* **&k0S ^Z**

You now have two 7-byte files named **bigprnt**, and **unbig**.

MERGING MEMOMAKER FILES

You are going to have think of your MemoMaker documents in a little different way to use these new files. Break your files into sub-groups. A logical subgrouping would be the text for a given topic and the heading for each such topic. As you write, save the headings and topics as separate files.

Now comes the trick of putting everything together. If you saved headings as HEADING1, HEADING2, etc., and text as TEXT1, TEXT2 etc., enter the following from DOS all as one line with a space preceding ALLTEXT.

copy bigprint+heading1+unbig+text1+bigprint+heading+unbig+text2 all text

FREE TO SUBSCRIBERS OF "THE PORTABLE PAPER"

For HP110 Users: Hewlett Packard's Time Manager program and PACK

The following is from Infoworld's September 9, 1985 review of HP's Portable Plus:

The machine's most useful feature is the Time Manager package. The Time Manager includes a calendar, an appointment manager, a list of things to do that won't let you forget, a phone book (with automatic dialing), a notepad (which runs MemoMaker), a limited search capability, an archiving feature, and a file manager that lets you select files from a menu.

Personalized Software has been authorized by Hewlett-Packard to distribute the product free to HP110 users. We include on the disk a PACK program that eliminates potential problems changing the Memory / EDisk configuration. (PACK is built into the PLUS.)

For Portable PLUS users: An HP Calculator program

For Plus users we have an excellent program that puts an HP Calculator on the screen. The program includes many features from different HP calculators. There are HP12C-like financial keys, including period, interest, present value, payment, future value, percent change. The statistical keys include sum, square, average, standard dev, line fit of x,y coordinates, factorial, weighted mean, correlation coefficient. The math keys include common, natural logs and antilogs, reciprocals, roots, exponentiation. The trig keys include degree, radian or grad modes, cos, tan, arcsin, arccos, arctan, pi, convert coordinates to radius/angle and back.

There are built-in help screens. Note that the program assumes general knowledge of HP calculators or access to an HP calculator manual.

Subscribers to *The Portable Paper* can receive Time Manager, PACK, and HP Calculator (on the same disk) from Personalized Software. Just enclose a 3 1/2" or 5 1/4" formatted disk with a self-addressed, stamped envelope (39 cents postage if you send us a 3 1/2" without envelope padding). Write "Please hand cancel" prominently on both envelopes.

All of this produces a file (your completed file) called **ALLTEXT**, and it will contain EXPANDED headings and NORMAL text. This can now be printed from DOS using the TYPE command: **TYPE ALLTEXT>PRN** Your file will now be printed.

LARGE FILES...

Files that can't fit into MemoMaker can be merged together (limited only by available disk space) using this same technique. Just remember that once the files surpass the maximum file size of MemoMaker they can only be printed from DOS using the technique just described. Make sure to keep each of the sections of your large file for later editing and re-merging since once they have been combined, no further choices are available except printing.

FINAL NOTE...

The file can only be printed from DOS. If you try to bring it into MemoMaker all of the printer escape sequences will be stripped out.

More MemoMaker Characters

By Charles K. Skidd

Last year I took a course in Italian, doing my homework on the 110 and penciling in the accent marks. The HP110 manual shows alternate fonts that contain the properly accented vowels, but I didn't know how to access them while remaining in MemoMaker. Now I know. The following procedure was discovered by accident. *(Ed—there is a chart on page 1-9 of the "Using HP110" Portable manual and 2-5 of the Plus manual.)*

If you hold down the **Extend char** key and press the letter **t** at the same time nothing happens. Now release both keys and press the letter **a**. You get an **a** with an accent mark above it: the proper accent for an Italian accented vowel. An accented **e**, **i**, **o**, and **u** can be produced similarly. **Extend char r, y, u** and **i** work similarly and produce accents, umlets and tildes above letters.

Most **Extend char** letters print something when pressed, including Spanish upside down **?** and **!** and Greek symbols. In English ½, ¼, and the cent sign among others can be produced. Experiment to find others.

The manual shows other items that would be useful if they could be printed--square root signs and other math symbols. The ThinkJet printer doesn't print these, however.

If you have a ThinkJet printer, you may have noticed that the printer manual is not at all clear on producing graphics with the HP110. On page 2-4 my manual gives a BASIC program for the HP75. If you have MicroSoft Basic for your HP110, the program should be corrected. Omit line 10, change all the PRINT statements to LPRINT, and omit all **&**'s.

Corporate users, let us send a *Portable Paper* to all of your company's Portable users. Contact us for special corporate rates.

MS Word B PLUS

MS-Word: Word Processing Palate for The Portable PLUS

By David Hughes

LEAPIN' LASERJET!

It's 4:20PM, and the deadline for your proposal is in forty minutes. You've got to get it out of your office by 5:00PM, or you'll lose the bid. You frantically reformat the document, page by page, command by command. There's no time to check it for format consistency—you've simply got to mail a copy, hot from the printer. What frustration! Isn't there an easy way to edit and reformat a document?

ENTER MS-WORD

MicroSoft Word (MS-Word) is a full-featured word processor currently available on ROM for the Hewlett-Packard Portable PLUS. It is an excellent productivity tool that takes the frustration out of the five o'clock deadline. For the Portable PLUS user, the advent of this word processor means three things:

- a complete word processing package embodied in a diminutive, battery-powered laptop computer
- utilization of the RAM disk for data storage, rather than for storing the word processor
- the ability to use the Portable PLUS with a variety of printers, including the HP LaserJet and LaserJet PLUS.

THE WRITER'S PALETTE

MS-Word is a document-oriented, format-sensitive word processor designed for the serious writer. It requires at least 148K of memory to operate. Its many features enable the writer to see his written document on the display in formatted form, just as a painter is able to witness his creation on the canvas before him. Like the painter's brush, the commands of MS-Word are simple to use, yet may be used to produce dramatic results.

MS-Word features context-sensitive help, on-screen fonts, and extensive text editing options: search, replace, copy, insert and delete functions. The commands are logical, common-sense, and normally invoked through the escape key. For the Portable PLUS user, the escape key is conveniently placed below the caps lock key, making document revision tasks neat and orderly. Except for cursor movement, your fingers are centered on home row. Since these features are common to almost all word processors, let's attempt to identify some of the concepts which make this program unique, and later examine some of the advanced features of this powerful word processing program.

FUNDAMENTAL CONCEPTS

A careful study of the program and how it treats text and formatting information indicates that the primary theme of the program is the separation of text and format information. The application of this concept is through the use of "style sheets." Style Sheets consist of a list of

user-defined styles and a keycode assignment. To use the style sheet, the user attaches the style sheet to the document and assigns the formats with the control key and the user-defined code.

Style sheets are very useful in document preparation. If the user defines the function of each style on the current style sheet to correspond to another style on another sheet, merely attaching the new style sheet instantly changes the affected parts of the document. Since the style sheet is not part of the document, the writer only needs to develop and apply consistent style sheets, not documents, to achieve format consistency. For example, a style sheet called DRAFT.STY can be used to create a double spaced draft of a news article, and a style sheet entitled STORY.STY can be attached after document corrections to produce the finished format. It is easy to change the appearance of the document by attaching a different style sheet.

ADVANCED FEATURES

MS-Word has many other advanced features which go beyond the scope of this article. Glossaries take the chore out of retyping words, paragraphs or phrases which occur frequently. It is possible to type a mnemonic in a document, (i.e., "wp" means "word-processor," and "+" means "Hewlett-Packard Portable PLUS"), and the glossary replaces each mnemonic with the equivalent meaning. (I normally use a glossary entitled TEKNICAL.GLY for frequently-used technical terms in my field of work.) Windows enable the user to open up to eight independent text windows at a time. This feature is especially useful when editing is required between two or more documents. Automatic footnotes allow the user to include footnotes at the end of each page or the end of the document. Page jump permits the user to jump to any page or any footnote in the document.

MS-Word also provides sophisticated printer control and support. The Print Merge facility permits merging of a database into a document; conditional printing; interactive document shells; and nested and merged printing. Queued printing allows you to work on a document while another is printing. Twenty printer drivers are resident on ROM, and are easily changed through the PRINT OPTIONS command. Additional printer drivers reside on the utilities disk. Two disk-based conversion utilities are also included: one to convert WordStar-formatted files to ASCII, and another to develop MS-Word printer drivers for non-supported printers. MS-Word supports proportional fonts, and takes significant advantage of both HP LaserJet printers.

COMPARISON WITH OTHER WORD PROCESSORS

MS-Word is the alternative to MemoMaker. Although it is both powerful and flexible, this doesn't come without a price. While MemoMaker is very easy to use, MS-Word requires more time to learn. The user should not expect to be proficient in a day. "Time on task" is needed by the user to develop the skills to use it in a consistent manner, while experimenting with some simple style sheets and glossaries. However, once the concept of why it works the way it does is grasped, mastery and use become easy, and there are greater long-term benefits.

It is my opinion that there is only one disadvantage of MS-Word: it is not possible to read a WordStar-formatted file without the WordStar conversion utility. This may present a problem, since there is an abundance of WordStar/MemoMaker users. One way around this problem is to carry the conversion utility on the Edisc. The most elegant solution is to purchase the MemoMaker/Time Manager ROM, and convert the file structure to ASCII with MemoMaker.

EFFECTIVE WRITING WITH MS-WORD

MS-Word provides the necessary tools to enhance productivity. Utilization of the glossary reduces the amount of repetitive typing. An aggressive use of the style sheet ensures consistent document formats. Since MS-Word supports windows, it is possible to write by an outline. The Print Merge facility should be exploited whenever merged or conditional printing is required. Planning the appearance of the document ahead of time should be done to ensure the applicability of style sheets. Queued printing should be utilized in a serious word-processing environment, to reduce the time lost waiting for a printed document.

IMPORTING AND EXPORTING FILES

MS-Word can import ASCII files, created by other word processor, spreadsheet, and database programs. A conversion from WordStar formatted files is required, which may be accomplished through MemoMaker or the supplied conversion utility. MS-Word formatted files can be read directly by other word processors, but should not be used, since the file appears as a string of ASCII characters with control characters attached to the end of the file. The most effective method of export (i.e., for telecommunication) is to produce an ASCII printer file without formatting information utilizing the PLAIN.PRD printer driver.

RECOMMENDATIONS

MS-Word is a powerful word processor available for the Portable PLUS. If your work requires extensive editing, formatting, printer control, or the use of various printers, it is a program deserving special consideration. The long-term benefits gained using this program far outweigh the time in-vested in learning it.

Happy wording.

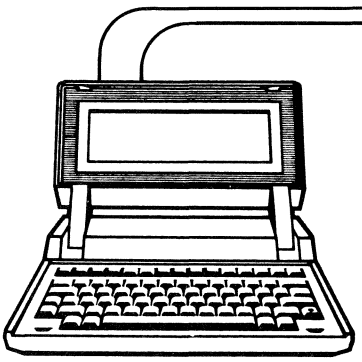
David Hughes is a Field Services Engineer for KW Control Systems in Middletown, NY. We want to thank David, who was generous enough to write this article in the midst of preparations for his forthcoming wedding.

Books on MS-Word

By Gordon K. Norman

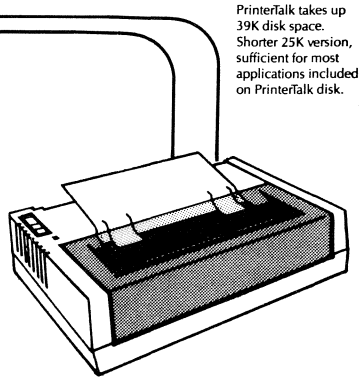
The following list reviews most of instructional books devoted to Microsoft Word available in my area. I have either read or scanned these, and will evaluate each for the benefit of others who have found the HP Microsoft Word documentation to be lacking and wish additional help.

I have been using Microsoft Word, version 1.10, for the past year and a half, originally from disk with the HP Portable, and more recently, from ROM in the HP Portable Plus. Recently, I have added the HP version of Microsoft Spell (v. 2.0), after having used, and soon abandoned,



PrinterTalk
The MemoMaker Enhancer

It does the things you wish MemoMaker could do!



PrinterTalk takes up 39K disk space. Shorter 25K version, sufficient for most applications included on PrinterTalk disk.

MemoMaker users: Now you can take advantage of *all* your printer's features, not just bold and underline. PrinterTalk Version 1.2A, an easy-to-use software package from Personalized Software, prints your MemoMaker files, allowing you to:

- Change attributes (type styles) anywhere *within* the files you print—
  Bold, underline, *italic*, compressed, expanded
  (whatever your printer supports)
- Control numerous print functions, including:
  -number of copies
  -lines per inch
  -lines per page
  -spacing (including double, triple, quadruple)
  -automatic page numbering
- Avoid paper waste by preventing annoying form feeds
- Use your HP110 as an electronic typewriter
  -PrinterTalk connects your keyboard directly to your printer
  -Great for labels, envelopes, short notes, any small typing task
- Perform advanced features supported by your printer, such as superscripting and subscripting.

CUSTOMIZED FOR YOUR PRINTER

PrinterTalk stores the "escape sequences" (command codes) that tell your HP printer how to perform attributes and print functions. Escape sequences are already built into PrinterTalk for ThinkJet, LaserJet (and cartridges), and other HP printers, and you can easily customize PrinterTalk for any other printer as well.

SINGLE-KEY OPERATION

Instead of a hard-to-use, intricate series of control codes, a single labelled function key sends commands to your printer. Simple "help" screens in plain English tell you what to do, and all commands are summarized on a single sheet of paper for ready reference. The user manual is clear and concise, and includes easy-to-follow examples of all commands.

---

*Use you printer's **full** potential!*
Order PrinterTalk Version 1.2A today!

$49.95 *including manual*

***$44.95** for Portable Paper subscribers*

FREE UPDATE: If you already have version 1.2 or earlier, send it to us with a self-addressed stamped envelope (or send us $7.50), and we'll replace it with version 1.2A (20% less disk space than 1.2).

15-day no risk trial:

If, after 15 days, you are dissatisfied with PrinterTalk for any reason, simply return it and we'll refund your money.

To order, send postage-paid coupon enclosed in this issue, or send check or credit card number to:
Personalized Software
P.O. Box 869, Fairfield, IA 52556 (515) 472-6330

SPECIAL OFFER:

Personalized Software's Hal Goldstein and FastAid's Ed Keefe Team Up! Put the MemoMaker enhancing utilities of

PrinterTalk & Format110

to work for you!

PrinterTalk owners - get Format110 for only $19.95*

Special Low Price:

BOTH PROGRAMS now ONLY $59.95*—A $90 VALUE!

Format110 lets you format headers, footers, and page numbers - all centered, left or right justified; chain or merge documents; and preview your document on screen. Format110 also lets you send your document to your disk file or printer and compensates for "widow and orphan" lines. Disk includes the manual and Turbo Pascal source code. Format110 usually sells for $39.95, now with PrinterTalk it's only ***$59.95**.* ***Order both today*** and get all the text formatting and printing control you need. To order, use the convenient postage-paid coupon at the back of this issue. Or call (515) 472-6330 with MasterCard or VISA.

*Format110 owners - get PrinterTalk for only $19.95. All prices plus shipping.

Hayden's The Speller with my Word files (too tedious to convert files to ASCII format, dictionary too small, too slow). I now find the ROM MSWord and MSSpell combination to be very efficient, and a pleasure to use.

1. *Microsoft Word for the IBM PC* (v. 2.0), Philip Lieberman and Phillip J. Gioe, SAMS, 1985, 527 pgs, $28.95

Very thorough tutorial, with ample illustrations and examples, including 5.25" disk of example files. Especially clear treatment of Print Merge and Spell, with special sections on Creating Forms, Typesetting, Writing Screenplays, and Legal Transcripts. No specific reference to differences between v. 1.0, 1.10, 1.15, 2.0. Recommended for beginner and intermediate users.

2. *Mastering MS-Word* (v. 2.0), Matthew Holtz, Sybex, 1985, 365 pgs, $17.95

Clear, concise, tutorial-style covering all major aspects of MS Word. Nice visual layout, good command summaries; particularly good treatment of Windows and Formatting. No specific reference to differences between v. 1.0, 1.1, 1.15, 2.0. Recommended for beginners or novice intermediates.

3. *The Word Book* (v. 1.0-2.0), David Bolocan, Tab, 1985, 243 pgs, $16.95

Good introductory text with comprehensive coverage; Formatting and Style Sheets handled very well. Excellent summary of differences in versions 1.0, 1.1, 1.15, 2.0. Recommended for beginner and intermediate users.

4. *Microsoft Word for the IBM PC,* Leo J. Scanlon, Prentice-Hall, 1985, 156 pgs, $13.95

Brief coverage of all major components, but occasionally superficial. Would provide good overview of program's capabilities for someone considering purchase. For owners needing detailed instruction, less than ideal. Recommended for beginners or potential beginners.

5. *Microsoft Word Made Easy* (v. 1.1), Paul Hoffman, Osborne McGraw-Hill, 1985, 246 pgs, $14.95

Tutorial-style lessons with good coverage of major features, but limited depth. Recommended for beginners.

6. *Using Microsoft Word* (v. 1.1 or greater), Claire Chase and Masha Zager, Que, 1985, 366 pgs, $16.95

Somewhat pedantic but exhaustive coverage with plentiful examples (in very small type font—myopes, beware!) Best treatment of Style Sheets, with many examples (available, allegedly, on disk; the last three times I called Que, it was said to be ready "any day now"). Also has unique section on Shell documents, and pithy chapter on "Common Disasters and Quick Remedies." Highly recommended for intermediate and advanced users; beginners will find inappropriate depth in spots, and gaps in coverage of fundamentals.

7. *Word Processing Power with Microsoft Word* (v. all up to 2.0), Peter Rinearson, Microsoft, 1985, 330 pgs, $16.95

Not comprehensive, but very useful coverage intended for intermediate and advanced users, written in very clear and digestible style. References to commands are always via screen menus, not IBM function keys (which is unhelpful, if not confusing, in other texts). Highly recommended for intermediate and advanced users.

8. *Getting Started with Microsoft Word* (v. 1.10, 1.15), Janet Rampa, Microsoft, 1984, 290, $16.95

Good introductory text, though hindered (for us) by repeated reference to IBM function keys and mouse commands. No discussion of Style Sheets, but basic formatting well-covered. Recommended for beginners, novice intermediates.

9. *The Power of: Microsoft Word* (v. 1.0, 1.1), Robert E. Williams, 1984, 148 pgs, $?.

Lesson-style exercises, somewhat awkwardly formatted and tedious. Though major features are covered, beginners would be better served with other texts. Not recommended.

10. *Introduction to Microsoft Word for the IBM PC* (v. 1.1), Alan Hoenig, WCB, 1985, 185 pgs, $17.95

Thorough introductory text, though often wordy and short on specific examples. Recommended for beginners.

MultiMate B PLUS

We received the following information about Multimate from Hewlett Packard.

MultiMate is now available on the Portable Plus as a Rom-based application. MultiMate is a page-oriented word processor based on the Wang word processor. Its editing and formatting features are very powerful, although keyboard commands take a while to learn.

The Portable PLUS version of MultiMate is NOT RELATED TO THE HP150 VERSION, but rather is based directly on the IBM PC VERSION. While it lacks the softkey menus of the 150 version, it can more easily share files with an IBM PC because the IBM character set is used. The features are not exactly comparable to any particular IBM version; it shares some of the features of the current version (MultiMate advantage) and some of the features of the previous version (3.30).

Like Lotus 1-2-3, MultiMate on the Portable PLUS executes directly from ROM. This allows it to run in 152K of memory, instead of 256K or 384K on the IBM PC or HP150 respectively. This also makes the program start almost instantly, and with your document on Edisk, page changes are equally fast.

MultiMate for the Portable PLUS includes:

- A MultiMate manual, modified for this version
- Two ROMs containing the editor and two printer drivers: THINKJET and TTYCRLF
- A dictionary disk for the spelling checker
- A utility for editing printer drivers
- A file conversion utility. (Caution, this utility requires additional memory beyond 152K, and usually beyond 200K, depending on the type of conversion being done.)

A Drive—Application Software in RAM

Wordstar A 110

Wordstar On The HP110

By Andrew L. Breffeilh

WHY WORDSTAR?

Chances are your HP110 isn't your first computer. If your first computer used the CP/M operating system, chances are you are already using Wordstar. For many HP110 users, the question is not "why Wordstar?" but "why change?" Continuing with Wordstar gives the HP110 user the familiarity of an old friend, at lightning speed.

Wordstar was the best program of its time, but times are changing. Newer programs will automatically footnote your reports, provide multiple-line headers and footers, and perform other fancy tricks that Wordstar does not do. Written for an 8-bit CP/M environment, Wordstar is not the most powerful or the most versatile program available today for the more powerful 16-bit MS-DOS machines. It can't even recognize MS-DOS subdirectories.

So why use Wordstar if you are not already hooked on old-reliable? Memory. Wordstar uses half the E-DISK memory of newer programs such as MS-WORD. Why use a more powerful program if it hoards E-DISK memory like a voracious bear and leaves no room for document files or other applications on E-DISK? Wordstar travels with only 113k required in memory; and if you want to use Wordstar with as little as 88k of storage—read on.

WORDSTAR: THE LEAN POWERHOUSE

Wordstar is a very powerful program, yet simple to use. The commands are all initiated by pressing the **CTRL** key in combination with other keys. For example, the **^K** combination (^ stands for the **CTRL** key) activates all "block" (file) commands, and calls the "block" menu, which advises the user of the block command options. A hesitation in pressing the last key in the string automatically calls the help menu, unless the Help menu has been suppressed. The help screen can be set to appear on command, appear always, or remain hidden. The command groups are not obviously named, but are logically grouped. For example, **^QR** may not mean "Quick cursor move to beginning of file" to the layman, but it makes sense to the user who knows that the keys around **S** and **D** act as a curser pad when used with the **CTRL** key.

HP has configured Wordstar to work with its 100 series computers (such as the 110), with special features: (1) Softkeys (**f1** through **f8**) which activate Wordstar commands without the user having to learn them; and (2) **Extend Char** combinations identical to Memomaker commands. If this triple utility seems like overkill, it is, because the function key labels remove two lines of readable text from the 16-line screen, and cannot be suppressed. Worse, the **Extend Char** utility was never properly debugged by HP, as detailed below.

Wordstar's power and versatility need no description here. Its real value in the Portable is that it packs so much punch into such a lean size, using just three files: WS.COM—45K, WSOVLY1.OVR—44K, WSMSGS.OVR—28K.

This means that with Wordstar loaded in drive A, and with nothing else on A, you can't have more than 78K of files created in Wordstar—about 39 pages of text. There are three ways around this limitation:

(1). Use Wordstar with the external disk drive. There are two ways to do this. First, you can keep Wordstar on Drive A, and access document (or non-document files) on external disk C. You can use the Wordstar main menu command L (Change Logged Disk) to call drive C. Just remember that Wordstar cannot read subdirectories, as detailed below.

You can also put your Wordstar files on C with your document files, or with the document files on A. Wordstar works faster if you store the document on A and access Wordstar from C.

(2). Strip down Wordstar. If you are familiar with Wordstar commands already, dispense with the help menus entirely. Expert Wordstar users do this already by selecting Help Levels 2 or 3 (e.g. **^JH2**). If you already know the commands you are likely to use, do without the help menu by not saving WSMSGS.OVR on the E-DISK. The HP Series 100 version of Wordstar provides help with the function keys anyway, although it does not substitute for such things as print menus. Doing without WSMSGS.OVR adds 28k to your available memory. When Wordstar is traveling with you on the road, with other applications loaded, this can double your available memory. Note: You can't use Wordstar without WS.COM and WSOVLY1.OVR. Wordstar may not be as versatile as Microsoft Word and others, but where else can you get this much performance with only 88k of memory used on E-DISK?

HP PORTABLE RELATED PRODUCT

TIMELOG.WKS

Automated, menu-driven template for Lotus 1-2-3. Keeps track of computer usage. Produce itemized billings or show time spent using the HP 110. $19.95

CrossReference.COM

Utility program that prints a line by line index of any ASCII file. $19.95

Send check or m/o($34.95 for both) to

FastAid Co.
314 S.W.Logan
Ankeny,IA 50021

(3). Use Memomaker and Wordstar. If you can't spare even 88k on the road, then don't use Wordstar. But you can use its cousin Memomaker as a travelling Wordstar. Documents written in Memomaker can be loaded in Wordstar, re-edited, and printed there. The biggest problem is that HP110 Memomaker documents have "hard" carriage returns after each line. You can cure this problem in Wordstar by searching and replacing **^QA** all carriage returns **^N** and substituting a space, then reformatting the paragraphs **^B**. Those who find this tedious should learn the search and replace options (**G**, **N**) and repeat commands (e.g. **^QQ^B**). Those who use Memomaker a lot and need to convert files to Wordstar regularly should obtain a copy of MMWS.EXE from their HP dealer, INTEREX (the HP users organization), or download it from CompuServe's HP Forum. (*It will come with the one of the utilities disks to be offered by Personalized Software in May.*) This file will quickly strip hard carriage returns from a Memomaker document and is a handy (as well as free) conversion utility.

PROBLEM AREAS: SYSTEM CRASHES

The most serious flaw in the Series 100 Wordstar (the version released by HP for the 110) are the unpredictable and severe consequences of the location and use of the **Extend Char** key. This **Extend Char** key, located disastrously near the **CTRL**, **Shift** and **Print-Enter** keys, can be easily and inadvertently depressed, with depressing consequences. Try this: load a document you don't care if you lose in Wordstar, then press the **Extend Char** key at various speeds and in combination with various other keys—especially the **S** key. The function key menus change unpredictably; the Wordstar commands appear out of the blue. Worst of all, the system can lock up—freezing the cursor in place, and requiring a system reset. For those of you who use Memomaker and Wordstar, system lock-ups happen often, because you are accustomed to using the **Extend Char** key with the function keys to toggle the character insert, to delete lines, and to perform other editing functions. Since Series 100 Wordstar uses these same commands to activate the corresponding Wordstar commands, you are apt to confuse Wordstar commands with Memomaker commands, getting you into trouble. There are two safeguards to avoid these disasters: (1) Save your document frequently **^KS^QP**, so that you won't lose much if you lock-up; (2) Always use Wordstar control key commands or function key commands, rather than **Extend Char** commands, and avoid using the **Extend Char** key altogether.

MEMORY LAPSES

If you get a "Disk Full" message when trying to save a file to the currently logged disk (including the E-DISK), mark the whole file as a block, and save it to the other disk. You do this by first pressing the **ESC** key to escape the error. Next, go to the beginning of the file **^QR**; mark it **^KB**; go to the end of file **^QC**; mark it **^KK**; and write the block (file) to the other disk **^KW [new drive]:[filename]**. Be careful to do this immediately, without editing or moving around in the file, or the E-DISK absolute memory may be exceeded. If this happens, the "Warning: Memory Exhausted" message will appear twice, and the the only escape is a "hard" system reset (depressing the **contrast** key for 15 seconds), with loss of data from the file and possibly the loss of all data on the disk.

WORKING WITH DIRECTORIES:

Wordstar was written for CP/M, which doesn't use file directories. Series 100 Wordstar cannot recognize directory "roots," or read files from other directories, and will only note and access the files in whichever directory is currently logged on disk. I use a batch file which puts me in subdirectory **\ws** where my Wordstar data and document files are, and erases the **.bak** file when I exit Wordstar. Wordstar automatically creates a copy of the original file when you enter Wordstar with a suffix **.bak**.

A word of caution regarding the use of directories on the 9114 external disk drive: You can group your Wordstar document files in different directories, but beware. The Wordstar has a nasty habit of forgetting which directory it is logged in, and defaulting to the root directory.

Wordstar is a mixed blessing on the HP110. Because of the **Extend Char** defect, I seldom entrust the touchy program to a secretary. Yet with careful use, it works well with all my Wordstar document files compiled on a Kaypro (and transferable by Terminal). If you're already using Wordstar, there is no reason to change. If you like the lean memory requirements, you will find Wordstar a good traveling companion. Just remember, no marriage is without its problems.

Andrew L. Breffeilh is an Attorney at Law in Jackson Wyoming

Writer/MS Word A 110

By Mark Reifslegger

The following notes are not intended as a thorough review of the products discussed. They are intended to provide an impression of the usefulness of two products: Writer, by Hayden Software, and MS-Word, by Microsoft. I have used each of these products extensively in their HP 110 versions. Though each has its redeeming features, I find neither of them very satisfying as implemented on the HP110.

Writer is by far the smaller and simpler of the two programs. When installed on the A drive, Writer requires 104K of Ram Disk space to install, and a minimum of 112K of system memory workspace to run. About 20K of the Ram Disk Space can be eliminated by deleting the Tutorial and Demo files. According to the owner's manual, Writer is capable of editing a document 12-56K in size, depending upon your Ram Disk Configuration.

Writer is described as a "command drive" word processor, meaning that it makes very little use of menus. It relies instead upon extensive use escape code sequences to control editing functions and to control formatting. Escape sequences are entered from the keyboard for editing by typing the **Del Esc** key followed by several prescribed characters. Text formatting is performed by dot commands.

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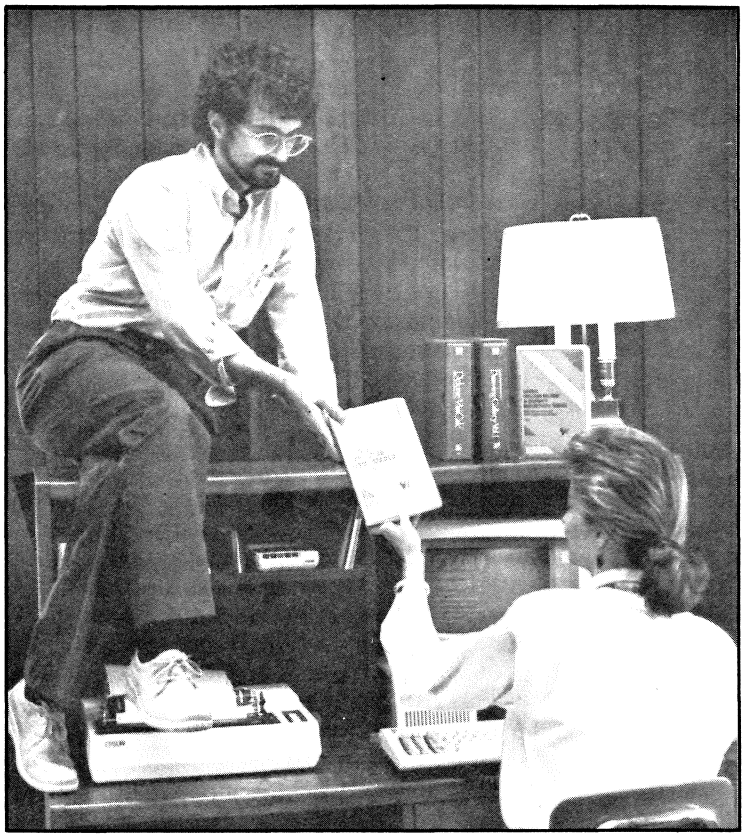

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Writer commands are adequate to handle most common word processing needs, including: mail merge, find, search and replace, center, underline, bold, inserting and chaining files, word count, copy or delete line(s) into buffer, headers, footers, standard margin controls and indents, copy, move, and others.

Writer comes configured for the Thinkjet, and can be configured for a number of others. Writer can send an initialization string to printer at startup. It also allows formatting configuration by screen.

Writer offers a significant gain over Memomaker in ease of cursor movement, since it employs a modified "Wordstar diamond." Those accustomed to Wordstar may find it an improvement over Memomaker (including a real life backspace delete key), though the commands are altered just enough from Wordstar to create confusion in the fingertips: CTRL-A yields word left, CTRL-S letter left, but CTRL-D toggles cursor to upper left and lower left of screen. CTRL-F is cursor right and CTRL-G word right. Other CTRL key combinations accomplish deletion in a similar, though not identical, manner as WordStar. In these regards, I found it a net gain over MemoMaker.

Writer does include apparently needless irritants and shortcomings. The edit level on screen formatting characteristics borders on bizarre. It allows word wrap editing with extended screen right margin to about 120 columns. However, when inserting text into the document, you may be surprised to see the line to the right of the cursor being forced off into the virtual right hand side of the margin, even though your margins are set for less than full screen width! If you move screen right you will find them there intact, though no reformat options will return them to their "rightful" place in edit level of the program.

The program operates in basically two modes: edit and format. As one might expect, all editing takes place in edit mode. To view the formatted product, one must escape to "format" mode through the use of any of several three-keystroke escape sequences entered from the keyboard. The document is then either printed to the screen in properly formatted condition or printed to the printer, depending on your choice of escape sequence or choices in intervening menus. Words forced off the screen by inadvertent inserts are returned to their proper place in the formatted output, though the edit level file is never reformatted. Should you return to edit level for work, you will be surprised to see that no changes have been made. The alert user can avoid a little of this inconvenience by inserting lines before inserting text. Under this condition normal wrap usually occurs.

The most important and undocumented weakness in the program is one of those features that emerges at the most inopportune time. In order to perform any function except edit commands, save, or escape to format, the program must retire to initial menu level. The significance of this fact will not strike you until it is time to key in a SAVE, after completing what you may consider an indispensable amount of work. If you are fortunate, your E-Disk will be large enough to handle it. If not, you can start deleting portions of your file until it is small enough to fit the disk. There is no way to rename the file to allow saving to other than the original name or drive from within edit level of the document. Nor is there any way to view the directory, sample memory storage, or delete a disk file without returning to menu level. You may exit without saving, or cut down your file and save, but, the chopped down version will overwrite the original disk file which bears the same name. Suggested precautions: 1) Do your best to avoid memory shortages on disk (delete tutorial and demo from installed version or install file for more space) and 2) Save an indispensible file under another name before beginning a new edit.

In conclusion, Writer offers a low-cost alternative to Memomaker that gives greater ease of movement within the document, adequate edit and format capacity, compatibility with Pie Writer, and reasonable mail merge capabilities. Mailing list capabilities can be further expanded by purchasing another Hayden product "List Manager," though Writer's are adequate for most purposes. Other Hayden products include a spelling corrector, daily planner/calendar, and list manager.

Because so many reviews of MS-Word are available in the literature, I would like to focus on those features of MS-Word that come to the fore in its HP110 version. (See The Portable Plus B-Drive MS-Word review for more information about the way MS-Word operates.) MS-Word is, no doubt, one of the finest word processing packages on the market, capable of almost any operation one could desire in a word processing package. Alost every feature of MS-Word is available on the 110 version. While HP must be complimented for at least attempting to offer such a fine instrument to its HP110 customers, a number of severe shortcomings render it highly debilitated on The Portable, especially when used with the 9114 portable disk drive.

The obvious lack is screen size. No obvious changes have been made to the normal installation of MS-Word, except that eight lines of text have been removed from the available edit area. This leaves you with an effective (ineffective) maximum of eight lines of text on the screen, hardly enough room to open the potential eight windows. The program permanently pastes the multi-tiered menu on the screen. No option allows the lines occupied by the menu, the function keys, the status line, or the box encasing the edit area to be removed to make room for more text. Since a person can easily remember the menu commands without prompting, this is a serious inefficiency. While Microsoft has repaired this shortcoming in the latest version of Microsoft, I do not know if it is, or will be, available for the HP110.

In addition, the program is too large to be installed in the A drive: that is, it must be run from the C drive. And when run from an external drive it requires 140K of RAM to boot. While HP has billed the program compatible with the portable HP9114 drive, the drive can only operate the program for 30 minutes before powering out! Eight hours of charge later it is possible to continue for 30 Minutes. (See Vol 1 Issue 2 and this issue's HP9114 articles.)

To make life more interesting, the drive will power out on occasion without warning, not only taking your workspace with it, but on occasion glitching the entire disk. (The "fuel gage" feature of the HP9114B handles this problem). The manual recommends frequent saves, though this will reduce runtime even more, due to high power consumption during save.

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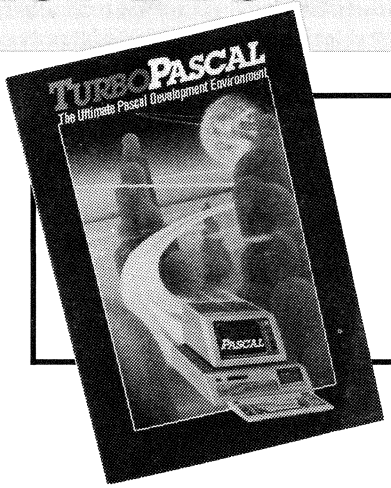

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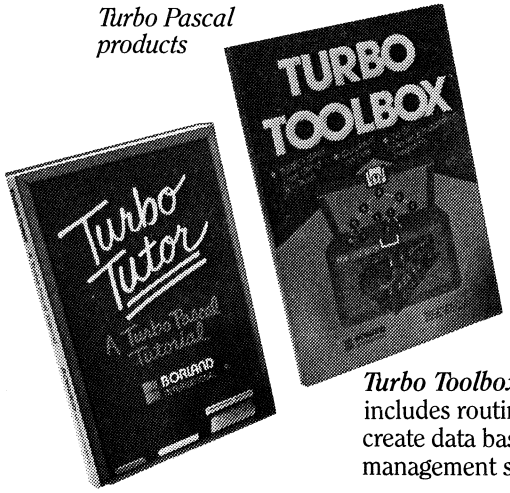

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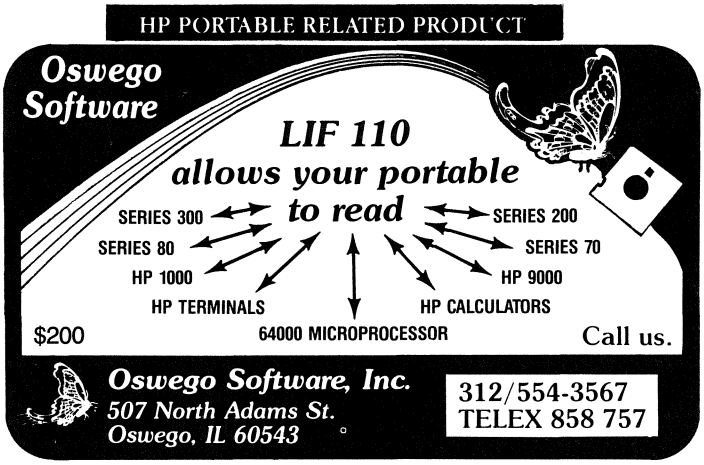


If you have another external drive than the 9114, and have need of the powerful capabilities of MS-Word, albeit on an eight-line screen, you may want to consider it. Though if the program runs as slowly and clumsily on other drives as it does on the 9114, I would not recommend it. Aside from the fact that the user scrolls only an eight-line screen, the scrolling is agonizingly slow in a large document. MS-Word creates a virtual disk file for each document—no matter how small. It continuously accesses this file during the input of the document from the keyboard—as frequently as every couple of paragraphs on the HP110. During this access, the display will not show keyboard input, though it appears to consistently catch it in the input buffer.

In my opinion, even the 7 pages of text allowed by Wordstar when instal led in the HP110's A drive is a better buy than MS-Word installed on the 110, unless you are severely attached to MS-Word's ability to window on other documents. Though HP has not allowed me to exchange this program for Wordstar, perhaps it will make a fine $375 toe-warming blaze come winter.

Mark Reifslegger has just completed his M.B.A. at Maharishi International University.

PrinterTalk/ Format 110 A

By Hal Goldstein

The MemoMaker Enhancers: PrinterTalk and Format110

One of the early inquiries about *The Portable Paper* came from a Californian who wrote, "Iowa, what's in Iowa?" What's in Iowa? Two companies: Ed Keefe's Fast-Aid and my Personalized Software that produce HP Portable products. Our two companies have independently developed programs to make HP Portable MemoMaker

Received For Review

Personalized Software has received the following software packages for potential review in future issues of *The Portable Paper*. If you would strongly like to review a product or see it reviewed, tell us. The description is from the literature sent with the product with our comments in parentheses.

From attorney Andy L. Breffeilh we received *Professional Bill, PO Box 2578, Jackson, WY 83001*. It is a Lotus template that runs on both Portables and is for anyone who provides services and bills for his time and expenses on a line-item basis. Available on 3 1/2" disk.

We received another Lotus Template that should run on both Portables, *Just Keepin' Records, PO Box 44128, Oklahoma City, OK 73144*. It is a checkbook template so easy to use that "you only have to know how to do a **file retrieve** command from Lotus." Available on 5 1/4" disk.

From Que publishing we received books *Using MicroSoft Word* by Zager and Chase and *The HP Touchscreen* by Dale Flanagan. Que books can be ordered from *800-428-5331, 7999 Knue Road, Indianapolis, IN 46250*.

From *Beaman Porter, Inc, 417 Halstead Ave, Harrison, NY 10528, (914) 835-3156* we received *The Powertext Formatter*. The PowerText Formatter features include justification, table of contents, subscripts and superscripts, outlines, bullets, multiple columns, variable line length, complex headers/footers, form letters and documents, footnotes. It reads ASCII and Wordstar files (and therefore MemoMaker files). Order the DOS rather than IBM PC version. The bad news: it requires a minimum of 172K memory and comes only on 5 1/4" disk. $49.95. (We received this and the next two products too late for review or testing for this Word Processing issue.)

From *PhD, PO Box 5009, Los Alamitos, CA 90721, 213-430-5855* we received *Editor/PC*. This line-oriented editor requires 128K of memory and is available on 3 1/2" disk. It emulates the HP3000 line editor EDIT/3000 (of which TDP is a superset). $35 plus 1$ shipping and handling.

From *Santa Barbara Softare Products, 1400 Dover Road, Santa Barbara, CA 93103 (805) 963-4886* we received *IndexAid*. "What we have tried to do in IndexAid is to relieve the author, as much as possible, of the overwhelming details involved in indexing, allowing him to focus attention on the most important job —choosing the index entries." $89.00 plus $5 shipping. New version available this summer, $99. 5 1/4" disk.

Finally, from *Laboratory Microsystems Incorporated, PO Box 10430, Marina del Rey, CA 90295, 213 306-7412* we received *PC/Forth for the HP110* available on 3 1/2" disk. $150.

more useful. PrinterTalk allows MemoMaker files to take advantage of all the features of the Portable's printer. Format110 allows formatting of MemoMaker files.The two programs have some overlapping capabilities. Many Portable users have found both products useful.

Both products make use of function keys, are easy to use, and are now available from Personalized Software. PrinterTalk retails for $49.95 and Format110 for $39.95. *The Portable Paper* subscribers can buy both products together for $59.95. Subscribers who already own either PrinterTalk or Format110 can purchase the other for $19.95. The products can be ordered with the coupon at the back of this issue.

PrinterTalk

If there hadn't been a PrinterTalk, there probably would not have been *The Portable Paper*. I originally wrote PrinterTalk for myself so that I could take advantage of my HP LaserJet's fancy fonts with HP110 MemoMaker. From my days working for HPCoach I knew that others had the same dilemma of not being able to take full advantage of their ThinkJet, LaserJet, or non-HP printer with their Portable. So, I decided to create a product.

However, there was no real way to market my creation. Then the newsletter idea came to me as a way to share knowledge and distribute HP Portable products.

There are two ways of using PrinterTalk: Print Mode and Typewriter Mode. In Print Mode PrinterTalk prints any HP110 MemoMaker file or other ASCII file such as a Lotus **.prn** file or a Portable Plus MemoMaker ASCII file. To allow PrinterTalk to take advantage of your printer you must insert two-character PrinterTalk codes of my invention, typable from MemoMaker, which stand for ThinkJet, LaserJet or other printer control codes. For example, suppose you typed the following two line MemoMaker file.
This will be@ycompressed.
This will be@znormal. When PrinterTalk prints the file, the results will be something like this:
This will be compressed.
This will be **normal.**

PrinterTalk codes are listed on the back cover of the manual for ready reference. PrinterTalk predefines codes for the ThinkJet and LaserJet, as well as most of the other HP printers. If you have a non-HP printer, you can easily define your own two-character codes.

PrinterTalk also contains some text formatting features which you can optionally define in the PrinterTalk configuration menu. You can single, double, triple, quadruple space; set lines per page, page number, and number of copies. You can also send any ASCII character directly to the printer.

Any predefined or user defined PrinterTalk code can be sent to directly to the printer with a press of a function key in Typewriter Mode. So, if you want your ThinkJet to print COMPRESSED EXPANDED, just press the COMPRESSED EXPANDED function key. In typewriter mode you can type directly to your printer, embedding any PrinterTalk code as you go.

One of our PrinterTalk customers, David Hughes of Middletown, NY, says the following about the program. "PrinterTalk is a very useful printer utility program. I thought the use or '@' control prefixes was a clever way around MemoMaker's dislike for imbedded printer control codes in the text. The menu was self explanatory, as were the help screens. One of the most welcome features is the typewriter mode. The send/examine feature is great for those with weak memories, and seeing the text in the line buffer before printing takes the frustration out of those small yet important printing jobs: mailing labels, file folder labels, pre-printed forms, form 'alignment.' I am a MS-Word user on my Portable Plus and have often found need to use the Printer Direct command. PrinterTalk was much easier to use!

"I experimented with the PrinterTalk dot commands. They functioned well, allowing me to substitute either zero, one, or two spaces for the PrinterTalk printer control codes. However, there is a bug important to Plus users. The program does not like underline off **@r** with the **.A** dot command."

The bug has been fixed in version 1.2A. Note that HP110 users can use the MemoMaker underline enhancement feature, which PrinterTalk will understand. Version 1.2A reduces the sizes of PrinterTalk and Mini PrinterTalk program files almost 20% to 39K and 25K respectively. (Mini PrinterTalk is a reduced version of PrinterTalk without the configuration menu, LaserJet codes, function keys, or help screens. Experienced users still find Mini PrinterTalk easy to use and almost fully functional while taking up quite a bit less RAM space.) PrinterTalk owners can update their version for free by sending Personalized Software their master disk and a self-addressed $.39 stamped envelope. Or they can send us $7.50 and we'll mail out a new disk.

David in his comments also made a suggestion for Mini PrinterTalk users. He tells us that he keeps Mini PrinterTalk in his RAM disk. He creates configuration files using MemoMaker. He figured out how to do so easily by examining a configuration file created using PrinterTalk. Any PrinterTalk user who prefers can send us a stamped self addressed envelope and we'll send configuration file instructions.

Format110 : a MemoMaker Enhancer

[Ed—We will now give Ed Keefe equal time. He tells us about his product, Format110.]

Those who use MemoMaker on the HP110 as their primary word processor and who would like to expand the printing capabilities of their computer should take a look at Format110 from FastAid Co.

Format110 is a printer utility program that works with either the HP82905B or the ThinkJet printer. The program comes in two versions on a 3.5 inch disk. The disk also includes the original Pascal source code for the program as well as all the documentation needed to learn how to use the program fully.

The disk comes configured with its own PAM.MNU file so that the new user can choose the most suitable version of the program by pointing and pushing. (The program for the HP82905B adds the capability of getting the printer to produce underline and double-strike printer enhancements: something that that printer won't do "naturally.")

There is even a PAM Prompt that will automatically print all 25 pages of the documentation at the push of a button or two.

The Format110 program is completely menu driven from either function keys or alpha keys. All three menus are designed to look like extensions of the MemoMaker menus. The new user should feel right at home when using this program.

Some of the more interesting features of the program are its ability to number the pages of your text automatically. The page numbers are included in either the Header or Footer region of the printed page. These headers and footers can be centered or can be shifted to the left or right on the page. They may even be made to alternate their position on the page depending on whether the page is odd or even numbered. You may also vary the top and bottom margin of the page where the headers will be placed. There is a single help screen associated with the header menu which will remind you of the simple code needed to get the headers/footers to behave the way you want them to.

The most recent version of the program (V.4.0) now has increased printing speed, especially when you are printing a lengthy document from the external disk drive. This feature is also important for those who have a disk drive with a "weak" battery. The program is so written that it will print almost three pages of material with only a two second "read" of the disk. Technically speaking, the input/output buffer of the program has been increased from the normal 128 bytes to a whopping 8K bytes.

For those whose who sometimes can't remember how they spelled the file they are trying to print, the Format 110 program provides access to all of the directories on the internal or external disks. You don't need to leave the program to access the directory.

And for those who don't like to waste paper, the program can even send its output to the display. This feature will allow you to see if you have any widow or orphan lines. You may jot down the page numbers on which these occur and return to the MemoMaker program to correct these errors before getting a final printout of the document.

If you would like to do "background printing" while you are working on something else on the computer, the Format 110 program will let you send your finished document to another disk file. You may then use the MS-DOS PRINT command to effect "background printing" from this file.

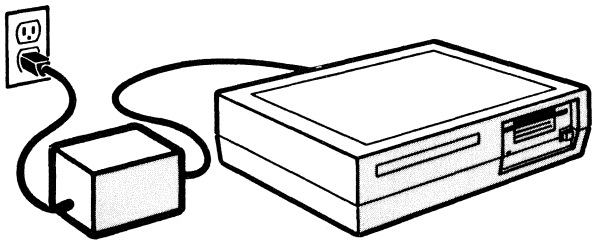
The program also has the ability to let you format your document with the use of "dot commands" which you may imbed anywhere in your document. These commands will let you change the font style from normal to bold to wide. They will also let you deal with widow and orphan lines and even suppress printing of part of the document.

One particular dot command will let you merge other files with the primary document. You may also write a separate document that contains nothing but merge commands. In this way you can print out several different documents without having to attend to the computer.

Finally, if you find yourself using the same document format over and over again, perhaps the format for half-page memos or documents on legal sized paper, you may

HP PORTABLE RELATED PRODUCT

THE HP9114 EMPOWERER



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Our special battery pack lets your Portable run directly off your wall outlet. You can plug in the regular HP charger at the same time, so your battery pack always stays completely charged. Solution 2 sells for $199 to Portable Paper subscribers, otherwise it's $225. Both solutions are custom-made. Both solve the HP9114 battery problem. And both will let you finish your work.

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store these formats on your disk and recall them the next time you need them.

All in all, Format 110 adds quite an amazing number of features to your computer. The learning curve for the program is very short, and now the cost is less than ever.

A Comparison: PrinterTalk and Format110

FEATURES IN COMMON

- Understands MemoMaker bold and underline enhancements
- Uses function keys and is menu driven
- Operable from either Edisk or HP9114
- Can define number of lines per page
- Produces multiple copies
- Allows for fan fold or single sheet
- Can save multiple configuration files
- Complete manual (PrinterTalk—bound separately, Format110 on disk)
- Variety of line spacing (PrinterTalk more flexible)
- Automatic page numbering (Format110 more flexible)
- Supports dot commands in document (PrinterTalk much more limited)
- Allows changing printer attributes within document (PrinterTalk a bit more versatile)
- Supports ThinkJet and HP82905B (PrinterTalk a bit more versatile)
- Takes up about 25K (unabbreviated PrinterTalk takes 39K)

PRINTERTALK ONLY

- Can easily customize any printer
- Built-in codes for any HP printer including LaserJet
- Can create subscripts/superscripts if printer allows (not trivial task)
- User can abbreviate any sequence of characters to two characters for PrinterTalk printing
- Ready reference on back cover of manual
- Typewriter Mode—any character or code can be sent directly to printer
- Pressing a function key sends desired printer code to printer

FORMAT110 ONLY

- Turbo Pascal source code included on disk for user modification
- Supports centered, left justified, right justified, and alternating headers, footers, and page numbers
- DOS command line mode of operation available
- Can vary top and bottom margins
- Gives access to disk directory within program
- Allows chaining and merging of documents
- Compensates for widow and orphan lines
- Allows for previewing document on screen
- Allows document to be sent to disk file
- Allows for suppressing printing of part of document

Conclusion

Both PrinterTalk and Format110 were written specifically for the HP Portable to address MemoMaker's limitations. PrinterTalk is superior for communicating and making the most of your printer's features. Format110 is superior for formatting tasks. Customers have found both products helpful in augmenting MemoMaker.

HP Portable and Portable PLUS MemoMaker users can now easily afford and make use of both these native Iowan products.

California, what's in California?

A Typing Whiz

By Ed Wells

The "Typing Whiz" is a very nice piece of software for the Portable, Portable Plus and Touchscreen computers that will enable many of us to increase our typing skills in a very easy and enjoyable way.

It is a menu-driven program with help screens which can actually be used without recourse to the excellent documentation supplied. One may learn the keyboard simply by choosing the "Learn Keys" option. In this option, the program automatically begins with the "Home Row Keys" or at the level attained during a previous session, and as the typist masters these, the program gradually introduces new keys. During this and all options the program computes the typing speed and accuracy for each character individually. The program uses these results to determine when to introduce new keys by comparing them with thresholds which may be chosen by the user.

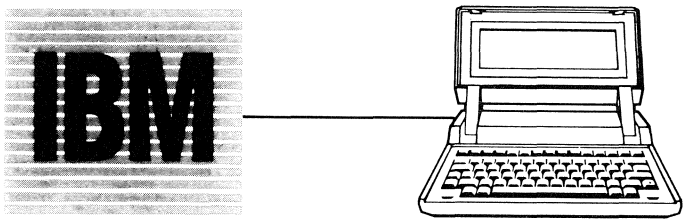
Graphs of the speed and accuracy may also be plotted on the screen for all characters, permitting assessment of one's strengths and weaknesses at a glance. Using the "Practice Key" option, one may choose to concentrate on those characters which may need improvement by selecting those keys. This option also allows selection of 5 other sub-options: learned keys, words, numerics, symbols or all keys. The "Typing Test" option may be used to test one's ability on actual text that is either supplied by the program or provided by the user. Finally, two keyboards, as well as overall speed and accuracy data, are displayed during typing. One keyboard is for lower case and one for upper case, indicating which symbols are in effect.

In summary, the "Typing Whiz" is an excellent, fully featured and enjoyable typing program written by an HP Corvallis Engineer. It should allow time spent at the computer to be shorter and more effortless. The program is available to subscribers of *The Portable Paper* for $39.95. Note that 60000 bytes of disk space on the disk you receive may be reduced to 45000 bytes by removing help, text and word files.

An Edix 110

(Continued on page 27)

THE CONNECTION



Running IBM Software on The Portables

RightWriter

Memo
To: Hal Goldstein
From: Ed Keefe
Re: Better writing with RightWriter

It has come to my attention that a rather novel, new product on the market can, if you like, improve the quality of most, if not all, written communication.

The product is called RightWriter v. 2.0. It is sold by the Decisionware Co., of Sarasota FL, for the amount of $95.00. It will function propefly on the HP110 computer along with the HP9114 disk drive. However, the software product does require the allocation of working memory in the size of 228K bytes.

RightWriter does not make any corrections to your text: it will, however, suggest corrections based on its own "rules"—over 1000 of them and a dictionary of 45,000 common words.

Truly this product with its "budding" artificial intelligence can, if you let it, make most written correspondence sound intelligent.

Memo
To: Hal Goldstein
From: Ed Keefe
Re : Better writing with RightWriter

It has come to my attention that a rather novel, new product on the market can, if you like, improve the quality of most, if not all, written communication.

< < * 17. LONG SENTENCE: 29 WORDS * > > ^
< < * 31. COMPLEX SENTENCE * > > ^

The product is called RightWriter v. 2.0. It is sold by the

< < * 21. PASSIVE VOICE: is called * > >
< < * 21. PASSIVE VOICE: is sold * > > ^

The product is called RightWriter v. 2.0. It is sold by the Decisionware Co., of Sarasota FL, for the amount of $95.00. It will function properly on the HP110 computer along with the 9114 disk drive. However, the software product does require the allocation of working memory in the size of 228K bytes.

RightWriter does not make any corrections to your text: it will, however, suggest corrections based on its own "rules"—

< < * 15. SINGLE WORD ENCLOSED BY QUOTES * > > ^

over 1000 of them and a dictionary of 45,000 uncommon words.

< < * 17. LONG SENTENCE: 31 WORDS * > > ^
< < * 31. COMPLEX SENTENCE * > > ^

Truly this product with its "budding" artificial intelligence

< < * 15. SINGLE WORD ENCLOSED BY QUOTES * > > ^

can, if you let it, make most written correspondence sound intelligent.

^ < < * 31. COMPLEX SENTENCE * > >

< < * * SUMMARY * * > >
READABILITY INDEX: 11.49
Readers need an 11th grade level of education to understand.
STRENGTH INDEX: 0.36 (ideal would be 1.00)
The writing can be made more direct by using:
- the active voice
- shorter sentences
DESCRIPTIVE INDEX: 0.71
The use of adjectives and adverbs is within the normal range.
JARGON INDEX: 0.21
SENTENCE STRUCTURE RECOMMENDATIONS:
1. Most sentences contain multiple clauses. Try to use more simple sentences.

< < UNCOMMON WORD LIST > >
The following words are not widely understood. Will any of these words confuse the intended audience?

228K 1	ALLOCATION 1	DECISIONWARE 1
GOLDSTEIN 1	HAL 1	HP110 1
KEEFE 1	NOVEL 1	SARASOTA 1
V20 1		

< < END OF UNCOMMON WORD LIST > >

Two Portable Spelling Checkers

By Thomas R. Page

The Word Plus, a spelling checker program published by Oasis Systems, runs as if it were designed for the Portable. For some unknown reason the programmers of The Word Plus chose to use only the bottom two-thirds of the standard 25-line computer display, making it fit perfectly on the Portable's 16-line display. The Word Plus offers a choice of two dictionaries, a large dictionary containing 45,000 words and a smaller dictionary containing 35,000 words.

The Word Plus can be installed on the Portable's A drive with either dictionary; however, there is very little (about 8K) space left on the A drive for document files if the larger dictionary is installed. If the smaller dictionary is used, approximately 40K of disk space will remain available for document files. Documents of about 20K can be created and spell-checked without having to resort to use of the external disk drive. The Word creates, in addition to several temporary files, **.bak** files to save documents in their uncorrected form. Normally I run The Word from the C drive and place documents for spell checking on A. Of course The Word is not nearly as fast when run from C, but then again I don't have to clear the A drive and install The Word.

The Word Plus is very easy to use. It is loaded by typing **tw** at the DOS prompt or making an appropriate PAM menu selection if it has been installed in PAM. When The Word loads, you are presented with a menu requesting the name of file to check. After identifying the file to be checked, you will be requested to supply the name of a special dictionary. The Word allows you to save words not found in the main dictionary in either an update dictionary or a special dictionary. The update dictionary is used to save words not found in the main dictionary, and special dictionaries are used to save jargon, abbreviations, technical terms, and words that may be good only in special circumstances.

After The Word has read your text and compared the words in it to the main dictionary, to the update dictionary,

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and to the specified special dictionary, you will be presented presented with another menu and the first word (alphabetical order) that was not found in any of the dictionaries. The selections in the menu are obvious and include options to save the word in either the update dictionary or special dictionary, to correct the word, to view the word in context, or to look up the word. Since I am a lousy speller, this last option is my favorite. When **L>ook up word** is selected, The Word will check the main dictionary for similar words and suggest possible correct spellings. From time to time I garble a word so badly that no correct spellings are suggested, but the Word usually comes up with correct spelling. To insert a suggested correct spelling in your document , you simply type **C** to choose the **C>orrect** option and then type the number or symbol of the correct word at the prompt. Striking the return key completes the correction.

In addition to the spelling checker, The Word Plus offers some interesting and some useful word utilities. ANAGRAM solves anagram puzzles such as Jumble, which appears daily in newspapers across the nation. An anagram is a word with the letters arranged in incorrect order. The Word's ANAGRAM utility compares the jumbled letters with main dictionary and identifies correct words. Another utility, called FIND, can assist in solving crossword puzzles. FIND will analyze a word with missing characters and suggest possible correct words.

I don't know the practical use of the above utilities other than to solve puzzles. The WC (word count) utility counts the number of words in a document. WORDFREQ, word frequency, counts occurrences of words in a document and prepares a file containing the results of the analysis. HYPHEN is used to automatically hyphenate words. It is not of much use with MemoMaker, but if you

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are using WordStar or some other word processor that recognizes soft hyphens, it may be useful. DICTSORT is a utility used primarily to assist in maintaining and creating special dictionaries and other word lists.

Some of you may wonder how The Speller, which is published by Hayden Software and which is another spelling checker that runs on the Portable, compares to The Word Plus. The Speller is a good program—it was the first piece of software that I bought for my Portable, but I have not used it since I discovered that The Word Plus runs on the Portable. The Speller's dictionary contains only 20,000 words and it does not provide a feature like The Word's look up command that searches the dictionary and suggests possible correct spellings. I like the HP f-key interface used by The Speller even though it is not necessary, and I prefer the way The Speller uses special dictionaries. The Speller permits searches against more than one special dictionary. Also, the Speller provides more flexibility in displaying results. It will display either suspect or correct words and will, if desired, print lists of correct or suspect words. Also The Speller permits checking more than one document without reloading the program.

The fact that The Word Plus returns you to DOS or Pam after checking each document is not a real problem since it is a small program and loads very fast. The $120 cost of The Word compared to the $50 cost of The Speller may be a bigger problem. One unfortunate deficiency of both programs is that neither handles subdirectories very well. With either program you must make current the subdirectories that hold program and document files before you run The Word Plus or The Speller.

I have not had the opportunity to try The Word on the Portable Plus, but I have no doubt that it will run on the Plus since The Word is apparently a pure MS-DOS program. Disk space available for document files on the A drive will depend on how much RAM the computer has.

I ported my copy of The Word Plus to the Portable from an IBM-PC. I wrote a batch file that allowed me to toggle between the large and smaller dictionary depending on which I wanted to use.

[Ed—The Oasis marketing manager suggested that Oasis will soon make available a dictionary/thesaurus product that he thought should run fine on The Portables. Word Plus is only available on 5 1/4" disk.]

110 WIZARDRY

by The Wizard, Cliff Looyenga

Accessing The HP110 Display

If you have ever wanted to do your own graphics on the Portable or to access the screen memory directly for greater speed, you have probably found out there is little or no documentation. I will first describe the display in alpha mode and then in graphics mode. We will only examine the HP110, since the Portable Plus has a more IBM-compatible display and is documented in The Portable Plus Technical Reference Manual available at HP Sales offices.

The display memory starts at absolute 80000 hex and consists of 48 rows of 128 bytes. (80000 hex is also known as segment 8000:; offset into that segment would be 0. In turbo pascal it looks like $8000:0.) The first 80 bytes of each row contain the ASCII values for the characters that are on that row. The remaining bytes are used for display enhancements. There are two bits used for controlling the enhancements of each character. One bit is for **inverse video** and the other is for **blinking video.** Bytes 80 through 89 handle the enhancements for characters 0 through 39, and bytes 96-105 handle the enhancements for characters 40-79. All other bytes are unused. Below is shown how the first enhancement byte (byte 80) is set up:

```
0 0 0 0 0 0 0 0 --> each bit of byte 80.
| | | | | | | |
| | | | | | | Reverse video bit, 1st char in row.
| | | | | | Flashing video bit, 1st char in the row.
| | | | | Reverse video bit, 2nd char in the row.
| | | | Flashing video bit, 2nd char in the row.
| | | Reverse video bit, 3rd char in the row.
| | Flashing video bit, 3rd char in the row.
| Reverse video bit, 4th char in the row.
Flashing video bit, 4th char in the row.
```

The scrolling is accomplished by writing to IO register E6h (the 8086 has 255 registers, sometimes called ports, that are accessible from turbo pascal with the predefined array called port.) This register has a value between 0 and 47, and indicates the row in screen memory where the first line on the display is at.

Below is a turbo pascal procedure that will write a string to the display (with enhancements) very quickly at a given row and column. Note that it does NOT update the position of the cursor.

```
{ ************************************************
fastwrite110 by Cliff Looyenga
The parameters to this procedure are defined as follows:
row = row to display string on. Range 1..48 screen relative
(Note that any row beyond the screen size will write, but
won't be seen).
col = Column to display string on. Range 1..80.
enh = Enhancements to use. 1=reverse video
2=flashing
3=both
************************************************ }

procedure fastwrite110
    (msg : string80;row,col,enh : byte);
var j,enhcol,enhbits : byte;
screen : array[1..48,1..128] of byte absolute $8000:0;
msglen : byte absolute msg;

Begin
row:=port[$e6]+row; {$e6 is the top of the display so
    row offset from there}
if row>48 then row:=row-48; { in case we need to
    wrap around end of mem }
move(msg[1],screen[row,col],msglen); { puts the message
on the screen }

{ add the enhancements to the message }
for j:=col-1 to (col+msglen-2) do begin
     { add enhancement for each char }
```

```
if j>39 then enhcol:=(j div 4)+87
else enhcol:=(j div 4)+81;
    { column that enhancement byte is at }
enhbits:=e shl ((j mod 4) shl 1);
    {set bits to OR with existing byte }
screen[row,enhcol]:
    =(screen[row,enhcol] and ((3 shl ((j mod 4) shl 1)) xor
$ff) or enhbits); { see comment below }
end;
end;
```

The last line in the for loop is kind of confusing. Really all that is needed to add the enhancement is to OR enhbits with the byte that is there. The only problem with that is it will not turn off any enhancements that were previously set for that character. This is why the AND is done. All I do is AND the 2 enhancement bits with 0 to clear them. The last part of the display area starting at 81800h contains the font for all the characters. Each character has 8 bytes of data, and there are 256 characters. The characters are in ASCII order; in other words, the first 8 bytes in this area is the character bit pattern for an ASCII 0. The format of the 8 bytes that defines a character is as follows:

	bit 7	bit 6	bit 5	bit 4	bit 3	bit 2	bit 1	bit 0
byte1	-not used-							0
byte2	-not used-							0
byte3	-not used-							0
byte4	-not used-							0
byte5	-not used-							0
byte6	-not used-							0
byte7	-not used-							0
byte8	-not used-		0	0	0	0	0	0

As you can see, a character is 6 dots wide by 8 rows; the last dot in each row is used to separate the characters, and the last row separates rows of characters. Now you can design your own font for the HP110 and load it into this area of memory and the hardware will use it for the standard character set. Note that this area of memory is used when in graphics mode, so in graphics mode there will be no character set resident.

Graphics mode is quite simple; there are 128 rows of 480 bits (64 bytes), where each bit represents a pixel on the screen. If a bit is a one, then that dot on the screen is set on. The first thing we must do to start using graphics is to put the computer into graphics mode and do some initialization. Below is a procedure called grafinit that will prepare the 110 for use with graphics.

```
{ ************************************************

Grafinit By Cliff Looyenga
This routine will prepare the HP110 for use in graphics
    mode.
There are three global arrays needed. They are:
BIT : Array that has a bit set. For example, BIT[5] has bit 5
    set.
SCREEN : Is absoluted to the graphics memory.
ALPHA : Holds the primary font out of screen memory.
Global variables needed:
var Bit : array[1..8] of byte;
screen : array[1..128,1..64] of byte absolute $8000:0;
alpha : array[1..2048] of byte;

************************************************ }
procedure grafinit;
Var j,k : integer;
Begin
bit[8]:=1;
for j:=7 downto 1 do bit[j]:=bit[j+1]*2;
    { inits bit array }
clrscr;
    { clears graphic memory except for where font is
    loaded }
move(screen[97,1],alpha,2048);
    { gets a copy of the current font }
for j:=97 to 128 do for k:=1 to 64 do screen[j,k]:=0;
    { 0's font area }
write(chr(27),'&j@',chr(27),'[=10h');
    { menu off, graphics mode on }
end;
```

The following procedure will turn the specified dot on:

```
procedure dot_on(row,col : integer);
var word,z : integer;
begin
word:=((y-1) shr 3)+1;
z:=((y-1) and 7)+1; { bit within word to turn on }
screen[x,word]:=screen[x,word] or bit[z];
end;
```

The reason I saved a copy of the font in the grafinit procedure is so that we can have alpha character in graphics mode. The easiest way to draw a character from the font table into graphics is to have one character per byte; however, that will cause 3 dots to separate each character since the first 2 bits of every byte is not used in the font table (as mentioned earlier). This would limit you to 60 characters per line. To draw characters the way you see them in alpha mode is a little more involved. Since characters are only six bits wide, you will have characters crossing byte boundaries. A routine to do this, as well as some other basic graphics procedures, is available on the Portable Pascal Programs disk available from *Personalized Software*, as well from CompuServe in the HP forum.

To exit graphics mode, all you need do is the following:

```
clrsrc; { clear screen memory }
write(chr(27),'[=8h',chr(27),'[10m');
    { enable alpha mode, load hp font }
```

You can find out what mode you are executing and also set the mode by using an IO register. The IO register $E1 can have the following values:

08h : 16 line alpha mode.
0Ah : 12 line alpha mode.
0Ch : graphics mode.
00 : blanks display. To find out your current mode in turbo pascal just do the following:

```
mode:=port[$e1];
```

or to set the mode to say graphics all you have to do is:

```
port[$e1]:=$0C;
```

Q What are the differences between the interrupts on the IBM PC and the Portables?

A There are many interrupts and many differences. The Portable Plus is far more compatible than the HP110. One of the problems with the HP110 is that there is no documentation about it, so the only way to find out what is implemented is to write a program and test it. The Portable Plus, on the other hand, is well documented in the *Portable Plus Technical Reference Manual*.

Let me start by talking about two much-used interrupts on the IBM. The first is interrupt 16 hex (16h), which is used to read a key from the keyboard. This returns a number (keycode) that corresponds to a particular key on the keyboard. Unfortunately, the Portables always return a zero for the keycode. This is why when some IBM software is run on the Portables, the keyboard doesn't work at all or not correctly (especially when it comes to softkeys and other special keys). If the software were to use the MSDOS function to get a key from the keyboard the software would work on all MSDOS machines; the disadvantage to this is that special keys cannot be read, such as function keys and the insert and delete keys. One could write a memory resident routine much like the PC emulator for the hp150 that would help a great deal with IBM compatiblity, especially on the Portable Plus, which is very close already.

The other real popular interrupt is interrupt 10h. This interrupt is used for controlling the display, such as cursor position and writing text with enhancements. On the HP110 this interrupt is there, but is a very limited implementation of the interrupt. Cursor positioning works, but there is no display enhancements or clear screen. I haven't tested all the functions of interrupt 10h on the HP110, but I am quite sure that none of the interrupt 10h functions are fully implemented. On the Portable Plus, this interrupt is implemented quite well. I will describe the differences between it and the IBM PC as stated in the Portable Plus technical reference manual:

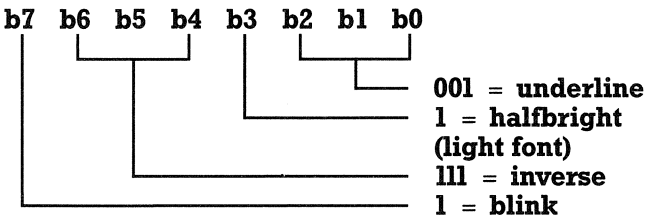
The Portable Plus LCD controller allows for two display modes, 80x25 alpha and 480x200 Graphics. The IBM PC can display three Alphamodes (40x25 BW, 40x25 color and 80x25 BW) and three Graphics modes (320x200 color, 320x200 BS and 640x200 BW), depending on the hardware configuration. All references to graphics bits beyond 480 are ignored on the Portable Plus.

The Portable Plus provides two cursors, underline and box. The IBM PC allows for a configurable cursor from a single underline, a double underline, a triple underline—all the way to a full box.

The Portable Plus has two pages of alpha display memory. The IBM PC has eight pages of alpha display memory.

The Portable Plus does not have a light pen; it will always indicate not triggered.

The attribute bytes are mapped differently on the Portable Plus and the IBM PC. The Portable Plus attribute byte is shown below:



The function to write characters in graphics mode works differently on the Portable Plus than on the IBM PC. On the Portable Plus, when a character is written to the display in graphics mode, it is ORed with the current character. When a character is written in graphics mode on the IBM PC, the current character is erased and the new character is written.

(Continued from page 21)

Review of EDIX, a Text Editor

By Ed Keefe

Emerging Technologies did a very good job of getting the program to work on the HP110. Here, briefly, is what the EDIX program does. When you start the program (and more on how to do that later), you will get a blank screen of 13 lines in which to enter your text. The bottom three lines of the screen are reserved for entering commands and viewing prompts from the EDIX program.

If you are using EDIX as word processor, the first thing you will notice is that there is no automatic word-wrap. When your text reaches the right side of the screen, the cursor does not jump to the next line. Rather the whole screen shifts to the left and you can continue to enter a line of up to 250 characters. If you want to start a new line, you have to press the **return** key. This is a desirable feature for people who will use the program to write computer code. But you can issue a special command to set the right margin at column 70, for example, and then you will get word wrapping. There is no way to set the left hand margin. However, you can issue another command that will set up automatic indentation. Then, if you start your first line at the tenth column, every line after that will begin at the tenth column and you have, effectively, begotten a left margin. All of this "margin-setting" is done via an "extended mode of operation" and via special commands like "mgn 70" and "ind" that you send to the computer. There are no menus to guide you through this. You would never guess that the program has these capabilities unless you had read through the user's manual.

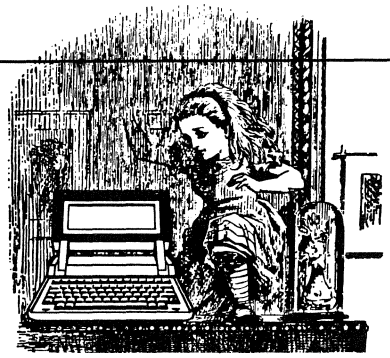
The user's manual was written for either the IBM-PC or TI Professional computers. Much of it has to be reinterpreted for the HP110. There are a few pages in the beginning of the manual that explain the differences for the HP110. If you get this program, expect to go through a period of confusion and exploration until you find what works and what doesn't. Don't count on learning too much from the User's Manual: the manual is not as well written as HP manuals.

On the other hand, the EDIX disk does contain an interactive tutorial which will introduce you to most of the features of the program. It takes about 30 minutes to complete the tutorial, which has been modified to emphasize the HP 110's version of EDIX. Therein you will learn how to issue the two dozen or so commands that will let you move the cursor around the screen to enter and "edit" text.

The unique selling feature of the whole EDIX program is that it "does windows." For those of you who are familiar with this feature on other programs, such a capability may excite you or leave you cold. The only drawback is that each window only contains six lines of text, each of which is 40 columns wide. Each window, however, will scroll from top to bottom and side to side to let you see all the contents of the file. But, in my opinion, the view is so limiting that it is of little value in ordinary use. The real advantage to using windows is when you are writing a computer program and you want to look at two or more versions of a program at the same time. This is where "windows" really let you view the world inside your microcomputer.

Lest I sound overly enthusiastic about this program, let me mention some of the things that I found disconcerting about EDIX right from the start.

(Continued on page 30)



Through the Looking Glass

By Ed Keefe

Because It's There...

INTRODUCTION—MAKING THE MOST OF THE LEAST

The facile response to why anyone would want to climb a mountain, "...because it's there...", may be the best reason why most owners of the HP110 use MemoMaker.

We all will allow that MemoMaker was designed for quick, terse memos: a couple of pages at most.

But what of us who use the HP110, and now the Portable Plus, to compose most of our correspondence, to massage our monographs, to pound out our publications? Why do we find ourselves resorting to MemoMaker? Surely there are better word processors for the HP110.

I can only answer for myself, "because it's there!"

In fact, this has been my oft-repeated excuse for using most of the word processors in my life.

Limited though it is, MemoMaker is eminently useful because it is there in the Read Only Memory of the computer.

What follows are some techniques and tips that I have discovered over the past couple of years to extend the usefulness of MemoMaker.

USE THE TURBO PASCAL EDITOR

If you have Turbo Pascal, you have an excellent text editor that effectively complements MemoMaker, even if you never use the Pascal compiler. Given that Turbo Pascal costs less than $70 and consumes under 40K of disk space, you should consider purchasing it even if you have no intention of ever programming. The Personalized Software version of Turbo is customized for The Portables and is relatively easy to learn and use. The customized version uses both the MemoMaker **Extend char** editing keys along with WordStar commands.

With the Turbo Pascal editor you can do global searches to find all your misspellings and typos and then replace them with your corrections. You can also perform such tricks as transferring large blocks of text from one document to another. This command is much easier and more powerful to use than MemoMaker's **copy block** and **paste block** commands.

PURCHASE A MEMOMAKER ENHANCER

For those of you who find MemoMaker's printing command to be too limiting, I would highly recommend the addition of the Format110 and/or PrinterTalk printing utility programs. Either of these programs will add immeasurably to your productivity on the HP110 and the Portable Plus. (See the A Drive articles on these two products).

USE LOTUS AS A WORD PROCESSOR

Then, of course, there is always Lotus 1-2-3. That is one program that is available to every owner of the HP110 and most owners of The Portable Plus.

Most people would not think of 1-2-3 as a word processor or text editor. Nevertheless, it does have its uses as an add-on to MemoMaker.

As a simple example of how 1-2-3 can serve as an adjunct to MemoMaker, consider this. If you name all your MemoMaker files with the extension ".PRN", then you will be able to import these files into 1-2-3 for further revision and formatting using the Lotus **/fit** (File Import Text) command.

A ONE LINE LOTUS TEXT EDITOR

A simple, one-line macro that will turn Lotus 1-2-3 into a pseudo text editor has been floating around the spreadsheet community for the past several years.

Just recently, this macro re-surfaced, in print, in PC Magazine. Here is the macro with an explanation of how to key it in and a brief discussion of how it works. If you do not understand macros just follow the cook book instructions, and you will be able to make use of it. *A1:* and *B1:* stand for cells **A1** and **B1**.

A1: **\W**

B1: **{edit}{?}~/rj~/rncXX~{bs}.{down}~/xi@count(XX)>=2~{end}{down}{down}/xg\w~**

Begin by setting column A to a width of 6 and column B to a width of 60. (Type **/WCS 6 return** and **/WCS 60 return**). This will, ultimately, give you right and left margins of 10 and 70 on the printed page.

Key in the label **\W** in cell **A1** and then key in the macro, that begins with **{edit}**, in cell **B1**. You can type it all in **B1** or continue it in **B2**. To type in **\W** you must first type a **'** (back apostrophe) and then the **\W**.

Then type the command **/RNLR** (Range Name Label Right, which will give the macro the label **\W**. Now move the cursor down the worksheet until the top line scrolls off the screen. Then move the cursor to cell A3 and issue the command **/WTH** (Worsheet Titles Horizontal). Save the worksheet with a suitable name, for instance, **/FS WORD** (File Save WORD) and press the **return** key.

To use this pseudo word processor (actually it is only a text parser) place the worksheet cursor in a cell in column B and press the **CTRL Shift W** keys simultaneously. You should see the EDIT prompt appear in the upper right corner of the display. Now you can start entering your text: up to 240 characters. When you have finished entering the text, press the **return** key and your text will be "left justified" in the B column with ragged right edges.

The cursor will be on the line below this paragraph. The EDIT prompt will still be in effect, and you can enter another paragraph.

When you are finished typing, press **CTRL Break** and then proceed with any other commands, including printing commands or saving commands.

How it works: the macro begins by turning on the **EDIT** prompt. {**EDIT**} is the macro equivalent of pressing the **f2** key. The {**?**} pauses the macro for text entry. Now, since the **EDIT** prompt is on, you can use the right and left arrow keys, and the other editing keys to correct any mistakes you might make in the line before you press **return**.

The **/rj~** sets up the Range Justify command and parcels out the text you have entered into as many rows of column B as are needed.

The **/rncXX** Creates a Range Name of XX in the current cell. By use of the command {**bs**}.{**down**} the range is defined as the current cell and the one below it in Column B. The next part gets tricky, but the idea behind the conditional is to determine if there is any text in the cell below the current one. If there is ("If the count of the range XX is greater than or equal to 2") then perform the rest of the macro, otherwise skip the rest of the macro and stop. (This will happen if you type in a line of less than 60 characters.)

The rest of the macro sends the worksheet to the bottom of the paragraph and, then, one line below that ({**end**}{**down**} {**down**}). Finally the macro loops back and executes itself again (**/xg\w**).

DOUBLE COLUMN PRINTING

Here is something else you might like to try with MemoMaker and Lotus 1-2-3. It is a trick that I have used in the past when I was publishing a newsletter for an HP-41C users group. I wanted to produce the newsletter in a double column format.

After much experimenting I developed the following 1-2-3 macro that will give you the capability of producing double column printing. Once again, here is the lengthy macro, followed by how to key it in, and then an explanation of how it works. *A1:-A8:* stand cells **A1** through **A8**.

A1: **INSTRUCTIONS: USE MEMO-MAKER TO FORMAT THE TEXT (MARGINS @ 1,29, ALIGN,**
A2: **JUSTIFY) you may have to set memory to 144K+. THEN RUN THIS (SHIFT CTRL F)**
A3: **GOOD FOR 1000 LINES**
A4: .....
A5: **{GOTO}B10~/FIT{?}~/MB60..B109~C10~/MB160..B209~C110~/MB260..B309~C210~/MB360..B409~C310~**
A6: **/MB460..B509~C410~/MG560..B609~C510~/MB660..B709~C610~/MB760..B809~C710~/MB860..B909~C810~/MB110..C159~B60~/MB210..C259~B110~/MB310..C359~B160~/MB410..C459~B210~**
A7: **/MB510..C559~B260~/MB610..C659~B310~/MB710..C759~B360~/MB810..C859~B410~**
A8: **/MB910..C959~B460~/PF{?}~RA10~R.{END}{DOWN}{RIGHT}{END}{UP}{RIGHT}~OOUQGQ/QY~**

How to key in the macro: the macro is entered as long labels. Cells A1-A4 are comments, cells A5-A8 contain the macro. (Some of the lines of the macro are broken up due to space limitations when printing the newsletter. You should, nevertheless, key in each line in a cell as an unbroken string of characters.) Note that to begin a cell with /, you must type in a backwards apostrophe: **'**.

Once you have the macro keyed in, issue the command **/RNC** (Range Name Create) and give the name as **\F**. Designate the range as **A5**.

Now position the cursor at cell A10 and issue the command **/ WTH** (Worksheet Title Horizontal).

Save the worksheet with the name DBLCOL (**/FS DBLCOL**). Quit the 123 program and return to PAM (**/QY**).

In order to get the macro to work, you will need to go into the System Configuration Menu. (Press key **f6**.) With the cursor set on the first option, increase the size of working memory to 144K or greater. Press key **f8** to exit from the System Configuration Menu.

Now, to see an example of double column printing, go into MemoMaker and GET MEMO. (Press key **f1** twice.) Select a text document from one of your disks. The document should be between 100 and 500 lines long. (Note, if you have a way of producing documents of longer than 512 lines, the maximum length of MemoMaker documents, you should be aware that the macro will work only for the first 1000 lines of the document. And for documents of this size, you will probably have to set your working memory to 192K or greater.)

Next, set the left margin to 1 and the right margin to 29. Then go into the **Block Keys** menu and press the **f4** key to **ALIGN** the text. Press the **f1** key until the asterisk shows in the prompt window (Justify on). Press the **Extend right arrow** key to highlight the entire memo and then press the **f5** key (twice with The Plus). The text will be aligned within the margins. SAVE the memo (perhaps using a name that is different from the original memo's name *but be sure it has the extension .PRN*).

Exit from MemoMaker with the **f8** key and call up Lotus 1-2-3 and issue the command **/FR DBLCOL**. Once the worksheet is in the display, press the **CRTL Shift F** keys simultaneously. When the macro prompts for the name of the file to be imported, type in the name of the memo and stand by. The macro will do its work. When it is finished the macro will prompt you for the name of the file to print. Type in another name for this new document and press **return**. The macro will complete its work and quit, placing you back in the PAM menu.

From there you may return to MemoMaker and call up this new double-column document for further formatting. Notice that the double-columns are broken every 50 lines. You may insert some blank lines to fit these 50 line columns on separate sheets of paper. From there on, it's just a matter of getting the text out to your printer. Dress it up with headers and footers if you like. Note: only at this point should you enter any printer enhancements such as bold or underline.

HOW THE MACRO WORKS

The first four lines of the macro are not really part of the macro. They are just a reminder of what the macro is designed to do. If you choose not to key them in, be sure that you begin the actual macro in cell **A5**.

Beginning with Cell **A5**, the macro sends the cursor to cell **B10** and there Imports a Text File which you designate.

Next there is a series of Move and Copy commands that shift the long, narrow document into double columns. This happens rather quickly.

Once all the shifting of text is completed, the macro issues a Print to File command **/PF** and stops to let you enter a NEW name for the text file. You should press **return**

after you have done this.

Next the macro finds the range of the document by sending the cursor to cell A10 and then dropping to the bottom of the worksheet (row 2048). Then the cursor moves up to the end of the document in column B and then moves to the right to include the second column of text.

The **OOUQGQ** part of the macro is part of the print to file sequence. It specifies the Options Other menus and tells 123 to print everything in an unformatted mode. The **/QY~** command quits the worksheet altogether and returns you to the operating system.

LINES GREATER THAN 80 COLUMNS

One other trick that you can do with Lotus 1-2-3 is to print lines that are greater than 80 columns wide. This technique is useful with the ThinkJet printer only if you are using a compressed print font. With this technique you can, if you wish, squeeze 130 characters on a printed line.

I will walk you through the procedure to show you how you can put 130 characters per line on the printed page using a combination of MemoMaker and Lotus 1-2-3.

Begin by entering your text material in MemoMaker, and, when you are doing this, be sure to set your left margin at 0. Set your right hand margin at the 60 mark. (Of course, if you already have a document prepared, you may reformat the text to conform to these margin settings: right margin = 0, left margin = 60.)

Once you have the document prepared, save it. Be sure to use the extension **.PRN**, since you will be importing the file into 1-2-3. Exit from MemoMaker and load 1-2-3. When the program is working, issue the command **/FIT** (File Import Text). Highlight the name of the text file you want to import on the command line and press the **return** key.

Now move to the first paragraph in the document and issue the command **/RJ** (Range Justify). When asked for the range, move the cursor using the down-arrow key until the first few words in each line are highlighted. Then use the right-arrow key to highlight the columns from **A to N** and press the **return** key. Every two short lines will become one long line. Use the **/WDR** (Worksheet Delete Row) to delete the extra blank lines between the first paragraph and the next. Repeat these **/RJ** and **/WDR** commands for all the other paragraphs in the document.

Once the document is stretched, use the **/PP** (Print to Printer) command. Press the **R** key to activate the Range choice and use the down-arrow key to highlight column A for the entire document. Press the **return** key. Then pick the **Options** choice from the menu and press **S** to activate the Setup command. Type in the following setup **\027\038\107\050\083** and press the **return** key. Choose the Margins option and set the Right margin at 130. Press the **Q** key to Quit the menu and then the **G** key to start printing. Of course, if you want to add headers and footers, do this before you start printing.

I hope that these few tips will aid your productivity on the HP110, or, at least, give you a few hours of exploring some more of the capabilities of your computer. Until next time, Happy Porting.

(Continued from page 27)

The biggest nuisance is the smallness of the screen cursor. EDIX uses the underline cursor rather than the box cursor. Trying to find the small cursor anywhere on the screen is irritating, to say the least.

A small nuisance is the huge size of the EDIX program itself: 67 Kbytes worth of program. If you want to keep the program on the electronic disk of the HP110, you will have to empty out most of your other files. The program wants about 136 Kbytes of memory in which to do its business. Thus, if you configure the HP110 to have 136 Kbytes for memory and 136 Kbytes for Edisc, you will be able to accommodate EDIX in memory. However, if you bring in the Help files, you will have consumed a total of 80 Kbytes of Edisc. This does not leave much room for 1-2-3 worksheets, PAM.ALM files, memos, etc.

The preferred way to use the program is from external disk. To run the on-screen tutorial, forget what the manual says.

Type in the following command on the DOS command line of the HP110's P.A.M. screen: **C:** and then press the **return** key twice. Now type in the command STUDENT and press the **return** key. This should get you started and save a long distance call to Boulder, CO.

In summary, let me offer my opinion of the EDIX program by saying that, if I needed an excellent screen editor for writing computer programs, then EDIX would be my second choice. (My first choice would be the the built-in editor that comes with Turbo Pascal.)

If you are using the HP110 to write Fortran or COBOL code, then EDIX might be your first choice as an editor.

I would not buy the EDIX program as a less costly alternative to a word processor. EDIX can be configured to behave like a limited word processor, but that is not what it was meant to do.

The EDIX program, on the whole, is an excellent program. And Emerging Technologies has done a good job of adapting the program to the HP110.

If you are looking for a program that will give you more sophisticated text handling capabilities than MemoMaker, then you should take a close look at the EDIX program.

(110% continued)

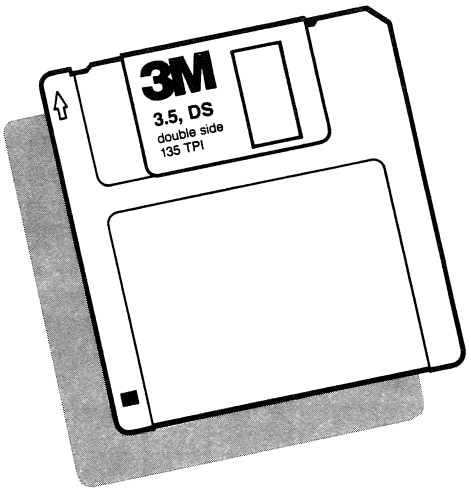
Any Ideas For Talking To IBM Mainframes?

Bob Burton of Doylestown, PA asks: "How are people using the 110 to upload and download data sets with IBM mainframes running the VM/CMS operating environment? The built-in Terminal program does not do the job. An HP sales office was kind enough to provide me with an experimental copy of DSNLink, which works fine but requires about 50K. Since I don't take my 9114 on the road with me, it takes up 50K RAM that I can't really spare." Does anyone have any suggestions?

Tidbits

Bob Pressey of Denver wonders why a third party has not come up with a cheaper, lighter, disk drive that can run off a normal wall outlet. Radio Shack and Apple disk drives both fill the bill.

Donald Woodson of Homestead, FL gives us advice to pass along to other readers. If you have to take your Portable in for repair, have your HP service center apply all current service notes (things HP will fix for free). HP does not do so automatically.



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[2] Includes free disk containing Norton Utilities, instructions for Portable users, and several Public domain utilities. If already purchased Holiday Pack from us, subscriber price is $84.95 (Norton Utilities normally not available on 3½" disk).

[3] Current owners of either Format110 or PrinterTalk may purchase the other product for $19.95 until July 31, 1986

[4] Includes free disk containing HP Portable/Portable Plus customized Turbo Pascal along with Portable graphic programs. Holiday Pack Offers include Turbo Pascal, Turbo Tutor, Turbo Toolbox. Offer good through July 31, 1986 or as long as Holiday Pack on Borland International's price list.

[5] $39.95 subscriber price if purchased any Turbo product from Personalized Software.

[6] Allow 1 to 5 weeks for delivery.

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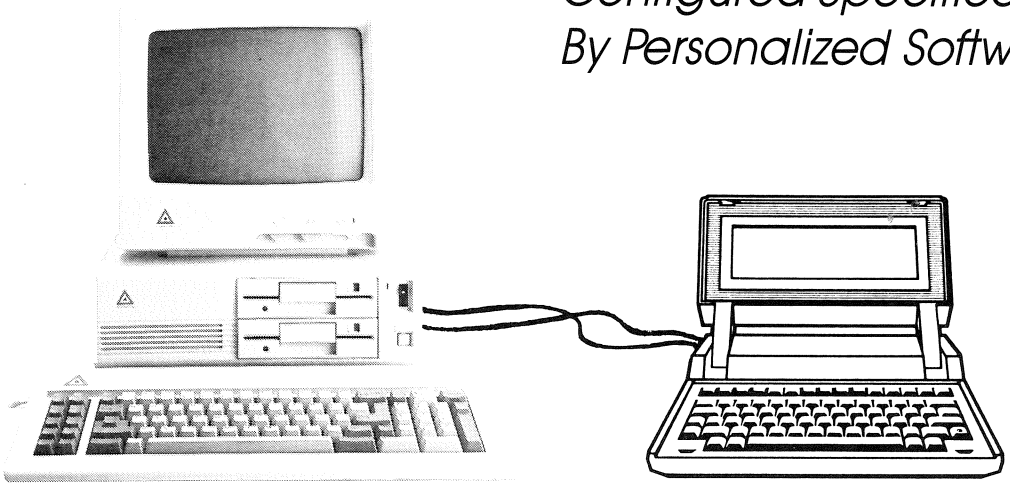

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HP110/HP110+ USER GROUPS

Thanks to so many of you who are willing to help organize local users groups. Users groups give an opportunity to share tips, answer questions, discuss other products, trade free software and Lotus templates, and meet other professionals.

As you will notice some areas have more than one contact person and some major areas have none. If you are in a "missing" area and would like to organize a group, contact us. If your groups combine also tell us. We will publish this column each issue, keeping it up to date. Write *Local Users Groups, Box 869, Fairfield, IA, 515-472-6330.*

California

Southern California
We meet 2nd Thur 7-9 at HP sales office, 5161 Lankershim Blvd, North Hollywood. Request LA Scrug Notes Newsletter, Dave Mark, 818-794-4969.

Los Angeles County, Southern California
Interested in forming HP110 local users group. Call during day. Blue Chip Computer System. 9701 West Pico Blvd, Los Angeles. Elmar M. Gomez 213-553-3393.

San Diego
Please contact me if interested in forming users group.
Stephen L. Eyre. 454-0555.

San Mateo, Santa Clara Counties In San Francisco Bay Area
Call if interested. Time and place to be arranged. Herbert L. Hamerslough. D: 415-340-8811. E: 415-323-9618.

Los Altos/Mountain View
609 Rosita Ave. Los Altos, CA 94022. 1st Tue night, 8PM, monthly or bi-monthly. Please, call to verify time and place and to say, hello. Marge Sutton.
D: 415-949-0509. E: 415-948-0627.

Colorado

Colorado Springs
Mission Research, 4935 N. 30th St., Colorado Springs, 7 PM, First Monday each month. Call if plan to attend. Dan Ritt. 303-528-8080.

Denver **NEW ENTRY**
Call Bob Pressey, 303-777-0326

Georgia

Atlanta **NEW ENTRY**
Call Brian Walsh D:404-394-2500
E: 404-399-6842

Iowa

Mid Iowa
Preferably on weekends, Thursday or Friday evenings. I headed a users group for the HP41C and know what a good learning experience a users group can be. 314 SW Logan, Ankeny, IA 50021. Ed Keefe D: 515-964-6644 E: 515-964-7064.

Southeast Iowa
906 W. Briggs, Fairfield, IA 52556. Call Hal Goldstein 515-472-6330.

Maine

Yarmouth **NEW ENTRY**
Every last Tue 6:30, US Route one, Yarmouth, ME 04096, 846-5497

North Carolina

Charlotte and surrounding area
If you are interested in developing a Charlotte area HP-110 user group, please call my phone answerer and leave your name, phone number, address, and the fact that you are interested in a 110 user group. John Jacob, 704-334-3468.

Oregon

Salem
Call to verify time & place & say hello. CompuServe ID 75066,1744 for electronic mail. Tom Cropper 503-390-1431.

Texas

Dallas/Ft. Worth Metroplex
2nd Thursday each month. Schedule and location can change to accomodate members. Optic-Electronic Corp, 11545 Pagemill Rd, Dallas, TX 75243
D. E. Pennington, D: 214-349-0190,
E: 214-331-4402.

Houston
Houston area users, please call and let me know what interests you. I will arrange a meeting as soon as I know what is needed. Our abilities are enhanced by sharing resources. Thomas R. Page,
D: 713-759-4259, E: 713-528-7138.

Utah

Utah County
First Friday each month at Noon. Heritage Halls Office, 825 East Heritage Drive, Provo. Call to verify time and place. Donna Hoover, D: 378-4421, E: 375-4812.

Virginia

Central Virginia
Call to introduce self and confirm interest. Steve Cochran. D: 804-528-8491,
E: 804-348-5289.

Washington

Eastern Washington, Northern Idaho, Western Montana, and possibly Western Washington until someone does it
Call or write to say hello and give input on desired time and place. N. 16725 Suncrest Dr, Nine Mile Falls, WA 99026. Bob Sandberg. 509-466-4999.

Eastern Washington
Every second Tuesday. Call ahead to confirm. E. 3703 33rd, Spokane. Stephen S. Warner. D: 509-534-1588,
E: 509-535-3322.

Washington D.C.

Greater Washington D.C. Area
8:00 PM, Third Monday of Each Month, Ballston Tower #1, 800 N. Quincy St., Room 519. Call to confirm and to say, Hi. William F. Cross. D:202-696-4112,
E:703-845-9508.

Australia

8 Avoca St, S. Yarra, Victoria, Australia. Nigel S. Ball. 03-267-8344.

England

Trafalgar House, Grenville Place, Mill Hill, London, NW7 3SA England. Tim Cullis. (01) 959 4359.

Italy

Centro Di Calcolo, Piazale Delle Cascine 18, 50144, Firenze, Italy. Thomas Bogyo. (055) 589-397.

Spain

Club de usarios HP 110, Pont Reyes S.A., A la atencion de D. Enrique Serra, Ronda Universidad, 15, 08007, Espana.

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