

# THE HP Palmtop Paper



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## New HP Support Policies

*HP offers 95LX U.S. users 90 days of free technical support and announces a 512K-to-1MB upgrade program for international users. HP Technical Support tells how to turn on the infrared port in new 95LXs. Rumors of new HP palmtops.*

## From the Factory

*By HP Palmtop Support*

"From the Factory" is authored by members of the Hewlett-Packard Palmtop Customer Support Department, and brings you news directly from HP Corvallis. The column will include interviews with design engineers, helpful operating hints, and new product announcements.

## *Expanded Technical Support for the HP 95LX*

On May 4, HP Palmtop Customer Support enhanced its palmtop PC support, offering U.S. customers the following:

*(Continued on page 12.)*

Thaddeus Computing, Inc.  
P.O. Box 869  
Fairfield, Iowa 52556

Application to mail 2nd Class  
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**NOW DOUBLE YOUR CAPACITY with DoubleCard!**

# Introducing **DoubleCard 2.0**<sup>TM</sup> RAM Memory Card

**NEW! DoubleCard 2.0 now doubles both your standard RAM cards and your HP95LX internal RAM disk! Now up to 5 MegaBytes on your HP95LX!**



## **DoubleCard 2.0**

ACE Technologies introduces *DoubleCard 2.0* with its unique new *DoubleRAM* feature. *DoubleRAM* together with the patented *Stacker LZS* data compression technology now doubles both the capacity of your RAM cards and your HP95LX's internal RAM disk.

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## **Additional Support**

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## **Extra Software included**

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## **Lifetime Warranty**

We believe in the quality and reliability of our products so much that *DoubleCard* now comes with a lifetime warranty. In addition, you will receive five years of free card batteries from ACE directly.

## **Upgrade now available!**

If you own any RAM cards for the HP95LX, we now offer *DoubleCard 2.0* and *DoubleRAM* as a software upgrade.

**To Order:  
call ACE TOLL FREE:  
(800) 825-9977**

## **DoubleCard 2.0 with DoubleRAM**

DoubleCard 1M (up to 1MB)	A2001
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DoubleCard 3M (up to 3MB)	A2003
DoubleCard 4M (up to 4MB)	A2004

## **Standard RAM memory Cards**

ACEcard 512K .....	A1003
ACEcard 1MB .....	A1004
ACEcard 1.5MB .....	A1005
ACEcard 2MB .....	A1006

## **Software Upgrades**

DoubleCard 2.0 Upgrade .....	C2200
B-Cursor (Battery Block-Cursor) .....	C1011
CardCopy (Card to card copy) .....	C1012
Universal Card Format Utility .....	C1013



**ACE Technologies, Inc.**

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ACEcard conforms to PCMCIA / JEIDA specifications.  
Dealer inquiries welcome.

# You've read it in print — now get it on disk!

## The HP Palmtop Paper ON DISK: 5 great benefits even the printed version doesn't have!

Now you can receive *The HP Palmtop Paper ON DISK* with every printed issue. Here are the benefits:

### 1. Locate items of interest fast

Each issue of *The HP Palmtop Paper ON DISK* contains the *entire editorial content* of the corresponding printed issue. The text is stored in ASCII format, and is readable by any word processor.

To locate an item of interest, just do an automated search for any keyword. The information you're looking for will appear on your screen instantly.

But fast access to items of interest is only the beginning, because you also get:

### 2. Access to almost every freeware and shareware program mentioned in the printed issue

That's right — virtually every freeware and shareware program mentioned in each printed issue is included in the corresponding *HP Palmtop Paper ON DISK*, along with documentation.

*These programs are useful!* Many of them have been written or specially adapted just for the HP 95LX.

To give you an idea just how useful these programs can be, we've summarized the contents of recent issues — see box at right.

*Please note:*

1. If you decide to use a shareware program, you are required to pay the shareware author his fee. Fees usually range from \$5 to \$45 — a fraction of the

cost of equivalent commercial programs.

2. We are unable to support you in using *The HP Palmtop Paper ON DISK* software.

### 3. Saves you time and money

Dozens of man-hours go into collecting, organizing, modifying, and documenting the programs in each *HP Palmtop Paper ON DISK*. Having the disks saves you the time and expense of doing all this work yourself.

### 4. In-depth descriptions of advertised products

Each issue of *The HP Palmtop Paper ON DISK* also includes detailed descriptions of some of the products advertised or listed in the printed issue. This helps you learn more about products of interest without having to call the manufacturer.

### 5. It costs so little!

*The HP Palmtop Paper ON DISK* consists of 2-4 360K floppy disks that you will receive along with each printed issue of your regular subscription to the newsletter. (*The HP Palmtop Paper ON DISK* does not include printed issues.)

A year's subscription to *The HP Palmtop Paper ON DISK* (6 issues) is just \$139. Shipping is included for North American customers.

That's less than \$24 per set of disks. *It's a great buy even if you only use one program per disk!*

Individual issues of *The HP Palmtop Paper ON DISK* are \$33 within North America, so a year's subscription saves you \$92.

You can save an additional \$19 by subscribing for two years for \$259.

### Satisfaction guaranteed!

Should you ever become dissatisfied with *The HP Palmtop Paper ON DISK*, just let us know. The unused portion of your payment will be promptly refunded.

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### TREMENDOUS VALUE!

Each issue of *The HP Palmtop Paper ON DISK* contains the complete editorial content of the printed issue, descriptions of advertised products, and virtually all the freeware and shareware mentioned in the issue.

To give you an idea of the tremendous value this represents, here are just a few of the highlights of the software included in recent issues of *The HP Palmtop Paper ON DISK*:

Instructions and utilities for accessing all programs are included on each disk.

#### WORD PROCESSING

VDE: Compact, powerful text editor — a great alternative to MEMO.

VDE-LX.ZIP: Makes VDE work like Word Perfect.

#### COMMUNICATIONS

COMMO.ZIP: Full-featured communications program — richer scripting language than the 95LX's built-in program — easier to automate your activities.

#### UTILITIES

FINISH.ZIP: Completes word after you type first few letters

MENU95.ZIP: Lets you run DOS programs without having to close the built-in applications you're working on.

DIET: Compresses files. DIET can double your disk space.

TIMEOUT.ZIP: Lets you adjust automatic shut-off time on your HP 95LX — saves batteries!

HPSL14.LIS: Description of HP 95LX CompuServe Library.

ATO: Automates CompuServe activities. Allows you to perform functions off-line, saving you line charges.

#### GAMES

AG.ZIP: Chess and Space Invaders (good graphics).

BJ95.ZIP: A Blackjack game you can run from the System Manager. Helps you "count" cards!

DIVDSK: Checkers, Go-Moku, Tetris, Othello, Mastermind, Adventure, and 9 other games. Enjoy!

Plus travel organizer, language compilers, screen printing utilities, other games, and lots more! (See Issue #1, p.36, Issue #2 p.43, Issue #3 p.44, and Issue #4, p.48 for complete listings.)

### HOW DOES IT COMPARE WITH THE SUBSCRIBER DISK?

*The HP Palmtop Paper ON DISK* is not to be confused with the Subscriber Disk that you receive free in June with each year's subscription to *The HP Palmtop Paper*.

The annual Subscriber Disk is one or two 360K floppies containing some of the best freeware for the HP 95LX (no shareware).

### FREE BONUS!

Each 1992 subscription to *The HP Palmtop Paper ON DISK* includes Issue #1 (Fall 1991) — absolutely FREE!

If you have already purchased Issue #1, you may deduct \$33 from the price of your 1-year or 2-year subscription. (Outside U.S. and Canada, deduct \$38.)

### Customers outside North America:

Please add \$30 shipping for a one-year subscription, \$60 for two years. Add \$5 shipping for each issue ordered individually. You may pay by credit card, check, or money order. Check or money order must be in U.S. dollars drawn on a U.S. bank.

Or order from one of our European distributors: (Contact them for pricing in local currency.)

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Germany (W&W Prods)	0 22 02 / 42021	0 22 02 / 32794
Netherlands (Eldata)	+31 (0)20 6247284	+31 (0)20 6325111

(More countries being added. Write or Fax us for current listing.)

## Publisher's Message



Hal Goldstein

HP and Lotus did an incredible job getting the HP 95LX right the first time... so much so that after a year, the HP Palmtop still has no serious competition.

Thanks to these two industry leaders, we have a pocket-sized DOS machine that lets us traverse built-in applications with a press of a key. The built-in applications, especially Lotus 1-2-3 and the easy-to-use and powerful HP CALC, put the 95LX in a class of its own.

The infrared port, 4-pin serial port, RAM card slot, and the ability to run for weeks on double-A batteries, all exemplify the technical excellence and the utility of the HP palmtop. HP further showed off its engineering prowess by putting the 95LX

internal memory, built-in software, and processor all on one board. This allows HP to offer its users an inexpensive upgrade path.

A new HP 95LX support policy seems to complete the package. HP now provides a number of support alternatives including retroactive 90 day free technical support. The new HP support policies, *The HP Palmtop Paper*, and the HPSYS CompuServe forum, make support for the 95LX excellent.

However, a vital piece still is missing. HP and Lotus have not published a technical reference manual. (Technical information and support is available for registered developers, but it is not nearly as complete as it needs to be.) End-users experience the consequence of this marketing decision as the lack of third party software that integrates seamlessly with built-in 95LX applications.

For example, in this issue we review best-selling contact manager ACT!. The ACT! people did an excellent job porting ACT! over from the IBM PC to the HP 95LX. However, ACT!'s lack of integration with the built-in applications means it is not as useful as it could be. I think it fair to blame the lack of available technical information about System Manager and the built-in applications on why we have not seen PC compatible applications integrated into the HP 95LX environment.

More PC applications on the HP 95LX mean more HP 95LX sales. A technical reference manual could be a break-even proposition for HP and Lotus if its price were between \$100 and \$200. Such a price is insignificant compared to the engineering cost for a developer trying to uncover missing technical information. Let's hope HP and Lotus respond – doing so is a winning proposition for all concerned.

In the meantime, if you want to put IBM PC compatible applications on the HP 95LX, study carefully Mark Scardina's article on installing such programs. This issue also offers you the opportunity to delve more deeply into built-in PHONE, APPT, 1-2-3, HP CALC, DOS, and System Manager – check out our regular columns.

Finally, thanks to HP Support who will be providing *The HP Palmtop Paper* with a column each issue.

### The HP Palmtop Paper

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**POSTMASTER:** Please send any address changes to Thaddeus Computing, Inc., Attn: *The HP Palmtop Paper*, P.O. Box 869, Fairfield, IA 52556.

### **Cop Wants To Break 47K PHONE Limit!**

You asked for commentary on the "Getting Started" column. I am sure you'll be hearing from novices such as myself on the subject.

Please do not drop the column, and keep it elementary. Not all 95LX users are programmers.

My field is law enforcement. As a cop, I need access to information on criminal suspects, their vehicles, m/o's, etc. I bought the 95LX (and sold my Casio SF-8000) thinking I was getting a wide-open memory bank of 512K to be used as I saw fit. Wow, what a letdown when I learned that that was not the case.

After reading some non-HP publications, including your paper, I find that each built-in application has limited memory. Although I agree with one of your readers that a generic card file would be an ideal application, the Phone Book should be suitable for my purposes. Be that as it may, the 47K limit is less than I had in the Casio (64K). I know I can initiate different files within PHONE, but that is inconvenient & time consuming (the antithesis of what a palmtop is all about). I want one large PHONE file that I can access quickly.

I am somewhat confused about RAM cards. Would one solve my problem, or am I eternally plagued by the 47K limitation?

**Bob McCarthy**  
Phoenix, Arizona USA

*[You are eternally plagued by the 47K PHONE limit. Two solutions: First, it really is not that big a deal to divide your PHONE book into A-M and N-Z and to create User Defined function keys to switch between files (see last issue's Getting Started column). You can use the PHONE F9 Tag feature and Menu File Extract and then F3 Cut to create a second PHONE file and trim the original file.*

*Secondly, Lotus 1-2-3*

*may actually be more appropriate for your data base. The size of your Lotus 1-2-3 file is limited only by the amount of system memory you have set, which means you can create much larger files. Lotus has better sorting capabilities (Menu Data Sort) than PHONE. You can sort on name or type of crime or type of vehicle or whatever. You can search with the Menu Range Search command - Hal.]*

### **Printing to the HP LaserJet III**

I'm wondering if you can help me get the 95LX to print using an HP LaserJet III. I tried to print using the serial interface cable and adapter connected to the LaserJet III's serial port with printer set to serial, RS-232 at 9600 Baud. The 95LX is set up at 9600 baud using the LaserJet interface on COM1. As soon as I connect the cable to the 95LX I get an error 40 message on the printer control panel display. I've had trouble getting through to HP's Palmtop technical support. I've left messages, but they don't seem to call you back. I tried calling HP printer technical support and while it was easy to get through, the support representative didn't know anything about the 95LX and couldn't help. It seems like a cable compatibility problem to me, but that seems unlikely considering both products are from HP.

The problem gets more complicated at my office where I have an HP LaserJet IIID connected to a Baytech serial printer sharing box. Can I connect to a port on the box and print? It didn't work when I tried it, but I did not get an error message, simply no output and no lights blinking on the LaserJet. Then I tried a direct connection to this printer and got the same error 40 message as on the LaserJet III at home.

**Steve Levitus**  
Edina, MN, U.S.A.

*[In general, to print to a LaserJet, enter the 95LX SET UP function by pressing <Shift><Filer>. Then press Printer Config Name 2. To make sure the 95LX's baud rate is the same as the printers, from SET UP press Printer Config Baud and then select the appropriate baud rate.*

*To print from Lotus, make sure the Interface option is properly set. Press <Menu> Worksheet Global Default Printer Interface. Press 2 to select the "Serial 1 - RS232" port and select the appropriate baud rate (press 8 to select "9600").*

*I duplicated the error message on my LaserJet series II by setting the baud rates different (printer 9600, 95LX anything but 9600). When I set both devices to 9600, I could print to the LaserJet from any of the 95LX's built-in applications. I called LaserJet technical support (208-323-2551) and asked a person named Kevin about the possible causes of a 40 ERROR message. He told me that in addition to the above, you can get that message if your printer cable is bad, or if you are using the wrong adapter with the cable. Double check to make sure your LaserJet III is configured correctly (check your LaserJet manual for instructions). If everything is set correctly, check out your cable and adapter - Rich.]*

### **Turbo Pascal 6.0 and Lotus Print Graph on the HP 95LX**

Good news for Turbo Pascal users. The 95LX runs perfectly with Borland's most recent version of Turbo Pascal, including the menu bar options, etc. You only have to copy the TURBO.TPL, TPC.EXE, and TURBO.EXE files to a RAM card and run the TURBO.EXE file. A 512K RAM card will be sufficient, but you better compress your .EXE files and set the System Disk to its maximum size.

Turbo Pascal 6.0 will then run like an angel, even without further modifications. As expected, the 95LX screen covers only 1/4 the of the usual PC screen, but you can easily move within the full screen by pressing the appropriate Alt-Cursor key combination.

For those who want to use Turbo Pascal's graphics mode, I recommend a TP-Graph Unit specially adapted for the 95LX's screen. For German speaking users, I found the ready-to-use HPGraph Unit presented in following book-plus-disk package excellent: *(HP 95LX Palmtop PC, author: Frank Riemenschneider, published by Markt & Technik Verlag AG, D-8013 Haar bei, München, GERMANY).*

*[File TP5GRF.ZIP in the 95LX programmer's section in CompuServe's HPSYS forum contains graphics units for Turbo Pascal 5 that should work with Turbo Pascal 6 - Hal.]*

Microsoft's GW Basic seems to run fine on the 95LX.

### **LOTUS PRINTGRAPH**

I'm happy to share with fellow readers my discovery that 1-2-3's PRINTGRAPH program executes perfectly on the 95LX! However, you cannot display graphs on the 95LX screen by pressing F10 in ImageSelect as one can on a PC since PRINTGRAPH does not have a graphics driver that works on the 95LX. The procedure is as follows:

1. Use 1-2-3's Install program on a PC to generate the driver set (123.SET) from the following choices in response to the prompts:

Text Display: IBM/COMPAQ video graphics (VGA 80X25)  
Keyboard: IBM Keyboard  
Port Interface: IBM Port Interface  
File Translate: IBM PC or compatible  
Graph Printer: Epson-FX and RX series (works with the Diconix printer)

 *On the HP Palmtop Paper on Disk May/June 92.*

2. Having thus created 123.SET, download it to the 95LX together with four other files: PGRAPH.CNF, PGRAPH.EXE, PGRAPH.HLP, and BLOCK1.FNT. These five files come to about 110K, so they can fit nicely on a 128K RAM card, or even reside on the C drive.

3. Using the 95LX's SET UP utility, configure the 95LX Memory setting to SYSTEM RAM of at least 298.

4. Execute PGRAPH.EXE from FILER (not from DOS as this can cause an "insufficient memory" message).

5. KEY STEP: Using the Alt-Arrow keys to navigate around the 80-column screen, in the SETTINGS/HARDWARE/ INTERFACE section, choose: 5 (DOS Device LPT1)! If you try to get PRINTGRAPH to output to a serial port (#2), nothing happens.

*Paul Levine  
San Diego, CA, U.S.A.*

**Corrections to IntelliLink review**

Thank you for your excellent review of IntelliLink (pages 14-15, Mar/Apr issue). I would like to make one correction. IntelliLink requires only 11K of 95LX disk space, not 50K as the article indicates. Since 95LX disk space is limited, this is an important distinction.

*Keith Crozier  
CEO, IntelliLink, Inc.*

**Macro Locks Out Other Applications**

I have found a strange little bug in my 95LX. If 1-2-3 is started with no other application having been started, and the first thing you do is erase the worksheet with a macro (/WEY), then no other application will start until you exit 1-2-3. Any application started prior to entering 1-2-3 and executing the erase can be re-entered, but new applications will start. If you do other operations in 1-2-3 before doing the erase, other appli-

cations start normally.

*Donald Bustell  
Des Moines, IA, USA*

**How Do You Decompress ZIP Files?**

I've received the first issue of *The HP Palmtop Paper*, and I'm reading your article on the HPSYS forum.

I have a novice question: Most of the executable files in the HP 95LX library have a .ZIP extension. What do I need to do on my 95LX, once these files are downloaded, to turn them into executable files?

*Olivier Sokal  
FRANCE*

[A .ZIP file is an "archived" or compressed file created by PKZIP, a shareware compression program. One or more files are compressed into the .ZIP file to take up less disk space and organize related files.

Download ZIP-PER.COM (11K) from the HP 95LX Library to "unzip" files with .ZIP extensions. See sidebar on page 30 of the Mar/Apr 92 issue for more information - Rich.]

On The HP Palmtop Paper on Disk, Mar/Apr 92.

**95LX Software on Public BBS**

Our Bulletin Board (501-636-0147) has a directory of 95LX software available (about 20 programs currently). This BBS is open to the public and access is free. Do you know of any other BBS systems supporting the 95LX?

*Ken Zey  
Rogers Tool Works  
Rogers, AK*

(Continued on page 41.)

**TAKE CONTROL and HAVE FUN with YOUR HP95LX**

**Introducing SWITCH!™**

Now take complete control of your HP95LX  
The HP95LX Program Launcher and Control Panel

**Look at these Features!**

- ☛ Launches any DOS program without closing built-in applications
- ☛ Allows single key access for both DOS and .EXM programs from a single menu
- ☛ Adds seven programs to your blue application keys
- ☛ Automatically creates and configures your APNAME.LST file
- ☛ SWITCH! is fully system manager compliant
- ☛ Change default directory of built-in applications
- ☛ Sets auto power off timer from 0 to 60 minutes
- ☛ Displays digital battery levels
- ☛ Displays free memory, free disk space
- ☛ Sets serial port status and control
- ☛ Controls cursor tracking and screen scrolling
- ☛ And much more...

Menu-driven and easy-to-use user interface gives you instant access to all your HP95LX programs plus a powerful control panel. SWITCH! together with GAMEcard vol. 1 are the "must have" programs for all HP95LX users. GAMEcard vol. 1 contains fourteen HP95LX games such as HPtetris, Craps, Reversi, Poker, Solitaire all in a single ROM card. Take them with you on your next business trip and enjoy!

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<b>SWITCH! 1.0</b> HP95LX Launcher and Control program (C1055) .....	\$49
<b>GAMEcard vol. 1</b> Fourteen HP95LX Games on ROM (G1001) .....	\$79

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## ACT! Contact Manager

*This article reviews ACT!, the most popular contact manager of desktop computers, now available for the 95LX. The article also includes a brief look at two other contact managers: Pocket Sales Force and Contact 95.*

By David Hayden

If any application is a natural fit for the HP 95LX, then contact management software is it. A contact manager integrates such functions as client tracking, scheduling, and a host of other features to help you manage your time and relationships more effectively. Although the HP 95LX has a built-in address book and appointment scheduler, many users require a more full-featured contact manager.

Many users of contact managers are traveling professionals. However, anyone needing to keep track of business contacts can benefit from this type of application. Many existing users of PC-based contact management software carry laptop and notebook computers. Many of these same users are switching to palmtop computers like the HP 95LX to have instant access to client information everywhere they go.

Three 95LX programs currently compete in the contact management arena; ACT!, Pocket Sales Force and Contact 95. While all the products offer useful features, ACT! is clearly the most mature and full-featured of the three. (See SideBar page 8 for discussion of Pocket Sales Force and Contact 95.)

ACT! was in development before the HP 95LX was even available. After more than a year a 95LX version is finally shipping, and with one major exception, its lack of System-Manager compliancy, it has been well worth the wait.

### What's In ACT?

ACT! for the HP 95LX is a derivative of the most popular contact management software for desktop computers. Surprisingly, the HP version of ACT! provides most of the predominant features of the desktop

version. It lacks a few features such as the word processor, keyboard macros and other advanced features.

ACT! not only contains the traditional features such as client contact tracking and scheduling, but also an expense tracking module.

ACT! can track up to 4,000 contacts and a total of 400 activities. (An activity is any call, meeting or to-do that relates to a particular contact.) ACT! features customizable field names, notes and contact history, a flexible look-up feature, and an import and export facility. ACT! also has a week-at-a-glance feature that Lotus overlooked in the development of the HP's built-in appointment book.

### The Contact Screen

When you start ACT! you are taken directly to the contact information screen displaying your first contact.

SAVE DATA! SAVE \$\$\$! SAVE EARTH!

## Introducing

# BATTman™

**Battery Management Software and Nickel-Hydride rechargeable batteries for your HP95LX**

### Features

- Supports Nickel-Hydride and any off-the-shelf rechargeable batteries
- Pop-up battery status every time HP95LX is turned on
- Monitors backup and card battery's voltages every 24 hours

### Predictive Algorithm

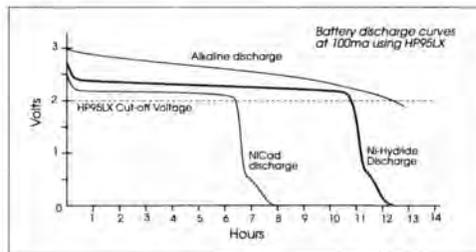
BATTman uses ACE's proprietary real-time Discharge Predictive Algorithm (DPA) to safely turn off your HP95LX long before the sharp voltage drops off. (see chart below). This prevents application crashes and valuable data loss to your HP95LX.

The powerful DPA algorithm works with any off-the-shelf rechargeable, alkaline or lithium battery.

In addition, BATTman's pop-up battery status gives you vital battery information every time you turn on your HP95LX.

### Nickel-Hydride Batteries

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- Two hi-capacity Millennium NiCADs with quick charger (C1016) ..... \$12

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### What is a Contact Manager?

Contact management software attempts to make you more productive by automating the routine tasks associated with maintaining relationships. A typical contact manager is built around a specialized database for storing information about contacts, including address and phone information, a record of when you met or spoke, notes on meetings, and follow-up information such as what you might want to send a person and when you want to contact them next.

Contact managers usually include a word processor for producing memos, letters, mailing labels, etc.; a communications program to automate phone dialing and interfacing with on-line systems; and time management tools such as an appointment calendar and to-do list. The different elements of a contact manager should be well integrated. For instance, you should be able to transfer address information from the database to the word processing functions when you're writing a letter to a contact.

Other features to look for in a contact manager include: report generation (the ability to generate reports on schedules, contact histories, expenses, etc.); macro capability (to automate keystrokes and save more time); on-line help function (saves time when you can't remember commands, and you don't have to carry the manual with you); and screen customization (modify the screen to display data the way you want to see it).

The contact screen is further divided into six screens of information for each contact. Pressing **F6** (the next screen key) cycles through all six screens. The first screen is logically laid out with company name, address, phone number and a place to schedule calls, meetings and to-do's.

```

Edit Schedule Clear Lookup Phone
View Expenses Report Quit
Company: Corporate Image Products
Contact: Tom Huffman
Phone: 214-357-4998 X: CC:
Title: Owner
Sec: Maryanne Dear: Tom
Address: 32432 St. Thomas
:
City: Irving ST: TX ZIP: 76062
Call:
Meeting: 09/09/91 8:00a new business!
To-do:
Screen 1 of 10 05/01/92 8:15a
    
```

#### ACT! Opening Screen

Accessing some of the information can be rather inconvenient. For example, you must go to the fifth screen to find the name and number

of the contact's assistant. To compensate for this, a function is provided that lets you go directly to commonly used fields.

Fifteen user-defined fields provide just about everything you would need to keep track of information such as fax number, alternative address and phone number, and contact history.

### Scheduling with ACT!

The 95LX already has a capable scheduling function with an integrated to-do feature. However, ACT!'s scheduling function is tightly integrated into the contact management module, allowing you to tie an activity to a particular contact. Alarms set in ACT! are transparently entered into the 95LX's own internal appointment book so that alarms are sounded even if the 95LX is turned off. This feature creates an ACT.ABK file that is loaded every time you enter the 95LX's built-in scheduler. (If you

have another APPT file open, ACT saves it before loading ACT.ABK.)

The scheduler also includes a "view activity list" function that provides a summary of all your activities with a one-line description for each. The scheduler's "task list" function provides an informative overview of activities on a selected date range, with one screen displaying calls, meetings and to-do's for that range of dates.

```

Company: Corporate Image Products
Contact: Tom Huffman
Type-Date-----Time-----Regarding-----
Rec: 04/04/91 8:00a new business!
    
```

```

Activities 1 of 1 05/01/92 8:25a
    
```

#### View Activities List Screen

There is no reason not to use ACT! for all of your scheduling needs instead of APPT.

## Attention VARs, OEMs...Call Us for Factory Direct OEM Pricing!



### HP-95LX Accessories

- #F1001A IBM-Compatible PC's
- #82222A Serial Cable, HP-95XL to Connectivity Pack
- #F1003A 512K RAM Card
- #F1004A 1 MB RAM Card
- #F1005A Dictionary/Thesaurus Card
- #82222A Serial Cable, HP-95XL to IBM-Compatible 3-pin to 9-pin
- #82224A Serial Cable Adapter, 9-pin to 24-pin
- SPARCOM Drive95 3.5" External Drive

### HP-48S/SX Accessories

- #82208A IBM PC to 48S/SX Link
- #82208B Advanced IBM PC to 48S/SX Link
- #82209A Macintosh to 48S/SX Link
- #82211A Equation Library ROM
- #82214A 32K RAM Expansion
- #82215A 128K RAM Expansion
- #TDS-256K TDS 256K RAM Expansion

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## More connections.

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The Sparcom Station95™ links your HP 95LX to your desktop PC for instant communication. This compact palmtop docking station replaces the usual web of loose cables and plugs with a permanent, 4-pin serial connector. Saves battery power too. Simply slide your palmtop onto the Station95; it clips securely into place and you are instantly in touch with your PC. DB 9 serial connector and AC adapter are included.



## More convenience.

### Pocket Professional™ Organizer

Crafted from fine leather, Sparcom's Pocket Professional™ Organizer has been carefully designed to carry and protect your HP 95LX. The Organizer has fourteen pockets for storing RAM cards, program cards, or credit cards; a pen holder, checkbook holder, and a special zippered pocket for keeping documents. The Pocket Professional Organizer makes the portability of your palmtop ultimately convenient.



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### Drive95™

Drive95™, the portable floppy disk drive for the HP 95LX, provides a new method of communication and data transfer/storage. Read/write and store data, execute applications and save money—by using standard DOS format 3 1/2" diskettes (720K or 1.44Mb) with your palmtop computer. A single charge powers the Drive95 for up to 15 hours of portable use. AC adapter, serial cable and software are included.



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### Other Contact Managers

#### Pocket Sales Force

Pocket Sales Force, known also as PSF, is the only Contact Manager that is System-Manager compliant. The ability to access PSF from within any built-in application is a key advantage over the other contact managers.

Pocket Sales Force works very much like a standard database. (Sparcom, PSF's U.S. distributor, plans to refine and market the product as a System-Manager compliant database program for the 95LX.) As a contact manager, PSF offers several advantages over the 95LX's built-in phone book.

First, the opening screen for PSF contains a menu with six command options:

**Action Today!** – instructs PSF to search through the database for any companies which are due for action today.

**Find company records** – allows you to search by any field to find the appropriate contact.

**Input new sales leads** – allows you to add customer records. A unique feature of PSF is the capitalization of all applicable names. For example, if you type in a name like david it will format it automatically as David.

**Process new sales leads** – is a unique feature that finds and displays each company that has not yet been assigned a "Next Action Date."

**Setup** – allows you to configure the program with such information as changing the names of the 20 user-defined fields and setting a security password.

**Export to 1-2-3** – puts the format into a text file that can be read by Lotus. The 1-2-3 Data Parse command can then use this information.

Similar to ACT!'s pop-up choices, PSF offers a multiple choice list of predefined choices. Up to 80 items can be listed in a single multiple choice box.

Because of its database foundation, PSF offers such features as logical yes/no fields which make data entry a snap. This feature could be used to create a user defined field that asks whether or not a client is active. Another nice touch is the ability to put a salutation on the same line as the contact name. The search capability allows selecting records several ways including a range of values.

Pocket Sales Force allows you to easily assign an action such as a callback to a contact. When you select Action Today!, you are presented with a list of contacts with next action date set for today or previous. A useful merge/printing feature allows you to merge contact information to the letter of your choice created by HP's built-in memo editor.

Pocket Sales Force's installation, similar to ACT!, is quick and easy. Simply connect the cable between the PC and HP and follow the on-screen instructions. The software will be installed on the HP in a matter of minutes. Pocket Sales Force is only 60K in size and can run in as little as 200K. PSF is available in English, French and German, and offers several useful features over the built-in address book. However, it falls short of ACT!'s impressive feature set.

#### Contact 95

If a multilingual contact manager is a requirement, Contact 95 might be considered. Unfortunately, it offers little else over the competition and requires an incredible amount of system resources. It requires a minimum of 482K system RAM and about 300K for program files. On the standard 512K HP, you will have to take everything off of your internal RAM disk and purchase at least a 512K memory card. On a 1MB HP 95LX you will have to devote virtually all available resources to Contact 95. This is a bit much compared to the 65K average program size for the other two programs.

### Pop-up List, Look-ups, and Other Time-Saving Features

Probably the most useful and time-saving feature of ACT! – especially on the diminutive HP 95LX keyboard – is the pop-up list that provide shortcuts to data entry. For example, when you are at the contact's title field, you can press **F2** to choose from a list of titles that you have predefined.



#### Pop-up Titles List

Another nice touch is the contact list, which displays eleven contacts on the screen at one time, similar to the way the built-in 95LX phone book works.

ACT! offers a look-up feature that allows you to search by just about any major field such as contact, company name, city and state. When you perform a look-up, ACT! presents a subset of contacts that meet the criteria that you specified. ACT! also provides a useful reporting feature that includes future activity report, task list report, contact report and phone list report. All reports can be viewed on the screen, sent to the printer, or saved to a file.

### Transferring Data Between the PC and 95LX Versions of ACT!

If you are a user of the PC version of ACT! you will feel right at home. Contact Software, the developers of ACT! have made a point of providing keystroke compatibility with the PC version of ACT!. Also, transferring data between the 95LX and PC version of ACT! is seamless and straightforward. A status bar on the PC indicates the progress of the transfer.

ACT! for PC users can transfer their entire data files to ACT! for the 95LX and maintain all contact

### Tracking Expenses with ACT!

In addition to ACT!'s contact management and scheduling functions, an expense module for tracking expenses and producing company expense reports is included. Each expense includes date, expense category, amount, type of payment, and name of establishment.

You can track mileage and billable expenses, as well as the company and contact with which this expense was incurred. Unless your



#### Opening Expense Screen

company requires a specific format for expense reports, those generated by ACT! should be sufficient.

## Contact Management Ordering Information

Listed below is contact information for the products reviewed:

### ACT! for the HP 95LX

Availability ..... Now  
Medium ..... Floppy disk  
Runs under SysMgr ..... No  
Pricing

ACT! for the 95LX ..... \$149/\$99\*  
(\* \$99 if you use ad page 37 this issue)

ACT! 2.11 for PCs ..... \$395  
CONTACT: *Contact Software International*  
1840 Hutton Drive Suite 200 Carrollton, Texas  
75006; Phone: (800) 365-0606 or (214) 919-  
9500; Fax: (214) 919-9760.

EUROPEAN CONTACT: *InterSystems*  
House, Tangier Lane, Eton, Berkshire SL4  
6BB, ENGLAND; Phone: +44 (0) 753 830727;  
Fax: +44 (0) 753 833317.

### Pocket Sales Force

Availability ..... Now  
Medium ..... Floppy Disk  
Runs under SysMgr ..... Yes  
Pricing (US) ..... \$99.95

US CONTACT: *Sparcom Corp*, 897 NW Grant  
Ave, Corvallis, OR 97330, U.S.A.; Phone:  
(800) 827-8416 or (503) 757-8416; Fax: (503)  
753-7821.

UK CONTACT: *C M Software Business*  
Unit 1, 33 Sandford Road Littlemore, Oxford  
OX4 4XT, UK; Phone: (+44) 865 748875; Fax:  
(+44) 865 748873.

### Contact 95

Availability ..... Now  
Medium ..... Floppy Disk  
(Must be loaded on RAM Card)

Runs under SysMgr ..... No  
Pricing ..... \$149  
CONTACT: *DYNAXX* 12, rue de Marivaux,  
75002 Paris FRANCE; Phone: (331) 42 96 15  
49; Fax: (331) 42 96 00 95.

information including notes and call history, as well as user-defined field names and pop-up menus. We transferred a contact file with 240 contacts in about 5 minutes and the data files which were over 400K on the PC were less than 90K on the 95LX. This is because ACT! for the HP 95LX utilizes variable length data files which squeeze out all of the blank spaces.

ACT! for PC users will have to upgrade to version 2.11 to utilize this data transfer feature. This

upgrade is available free of charge to all registered 2.1 users. 1st Act! users cannot share files with ACT! for the 95LX. According to Contact Software, this file transfer capability will be a part of the upcoming Windows and Mac versions of ACT!

ACT! for the HP also features an innovative function called Zap-cards. This feature allows two ACT!-equipped 95LX users to transfer contacts via the infrared port.

### ACT! Specifications

ACT! is shipped with both a 5 1/4" and 3 1/2" floppy disk and users are expected to have access to an IBM compatible computer to install the software on the HP 95LX. The entire installation process takes less than 5 minutes. A simple install program copies the software to the 95LX's C drive through a PC link cable included with ACT!. A conversion utility is provided that converts your existing phone book entries into ACT! (only name and phone number are transferred). The main ACT! program is only 66K and can run with as little as 200K system RAM if automatically loaded (the install program creates a custom AUTOEXEC.BAT and CONFIG.SYS file) or 300K under system manager through Filer! ACT!, including software and PC link cable, retails for \$149 (\$99 using ad order form on page 37 of this issue).

### Drawbacks

The biggest drawback to ACT! is that it is not a System-Manager compliant application. To use ACT! it is first necessary to save and close all applications. To make this procedure less painful, ACT! is automatically loaded every time you reset the 95LX (it can be set up to be accessed through filer instead). Users that rely heavily on the built-in applications will find this to be a major annoyance. Also, the expense module aborted several times during our evaluation. For the most part, though, the program performed as expected.

### Ease of learning

ACT! provides context sensitive on-line help with an index feature that

makes getting help a simple process. The documentation for ACT! is excellent. It includes about 200 pages of well organized information and an index and table of contents.

### Conclusion

If System-Manager compliancy isn't necessary, ACT! is clearly an excellent choice. If you are willing to give up features for seamless integration with HP's built-in applications, then Pocket Sales Force provides an alternative (see sidebar page 8). If you don't need to keep track of information beyond name, phone number and address, and keeping track of meetings and calls to clients is not important, then the HP 95LX's built-in PHONE and APPT are probably sufficient.

*[David Hayden is an independent computer consultant who specializes in the palmtop market. He is actively seeking a marketing position in the palmtop/laptop industry and can be reached at 214-644-0923.]*

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ACT!	1-2-3 for
	Windows

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Nashua, NH 03062  
Tel: (603) 888-0666  
Fax: (603) 888-9817



## A Lawyer Brings His Palmtop To Court

*This palmtop novice learns to close unneeded applications, use PHONE as a database, and to type fast on his 95LX.*

By King Waters

I am a personal injury trial lawyer, not a computer buff. I do not generally need spreadsheets or engineering calculators, and using a computer in daily practice seemed inefficient to me. But then I saw an efficient colleague put his Rolodex, case file summaries, and calendar on a Sharp Wizard. He became even more efficient.

At the same time I saw a sidebar in an article reviewing palmtops announcing the arrival of the HP 95LX. I was impressed with its credentials, price, and country of origin. I ordered one, sight unseen, not knowing if I could really fit it into my daily routine.

### **Beginning Discoveries**

I settled for doing the expected things at first, like transferring my telephone numbers to PHONE, my calendar to APPT, using HP CALC, and jotting down notes to myself on the 95LX's MEMO function.

I tended to leave my applications open, but one afternoon my screen flashed "out of memory" when trying to access MEMO. I closed my applications and entered SET UP and expanded working memory. I later learned from HP Technical Support that the operating memory of the 95LX would limit the working space of any particular application, based upon how many applications were open. I learned an important lesson; close out (Quit) unneeded applications to maximize operating memory (System RAM). I also learned from HP's technical staff that you can clean the 95LX screen using a commercially available cleanser called Snap and a soft cloth.



King Waters

As I began to carry my 95LX around, I started carrying fewer tools typical of my trade; I no longer carried my pocket diary, I stopped bringing a legal pad (keeping notes with MEMO), I even stopped carrying a pen. Next I realized that I no longer needed to carry a file with me; I could keep enough facts in a case directory to avoid lugging paper around town or the state. Pretty soon, I was not even wearing a watch. I would get on a plane with a 95LX and nothing else.

At first I didn't take advantage of the 95LX's potential for saving keystrokes. I'd take deposition notes on MEMO as I would on a legal pad, then return to the office and dictate a summary for my secretary to transcribe. Then it occurred to me that I could eliminate steps by taking deposition notes in complete sentences and paragraph structure. Now when I get back to the office, I use the connectivity pack to transfer my summary to a desktop computer

and then through the office network to my secretary's terminal. Now I usually have a summary in print within minutes of returning from a deposition.

### **Alternative Use of PHONE Expands 95LX's Power**

I was just beginning. Soon, no matter where I went, my office went with me. Each time I met with, or called a client, co-counsel, or witnesses, I used the opportunity to ask for home telephone numbers. I need to be able to reach these people at all times, and my Phone Book now has a large group of home numbers not always available through directory assistance.

PHONE held not only personal and business numbers, but my case billing codes as well. I put my cases in a separate Phone Book, alphabetized by the client name. I inserted the client's name (or a shorthand reference) and a reference name for particular cases on the first line (Name:). I put in the billing number for the client and a brief description of the subject on the second (Number:) line. I now had computerized access to my billing numbers, which has proven a time saver in itself.

I used the Address portion of the card to store case data; court numbers; names and telephone numbers of opposing counsel; dates of accidents; and client contacts. Now I use Find (F7) in PHONE to determine what cases I have in particular courts. I store similar data in APPT, and analyze trial dates for the next year.

With case information stored on my 95LX, I can make better use of time at the courthouse. Whenever I am in court, I can double my efficiency by checking up on cases in other courts. The key to the legal kingdom—the case number—is always at hand. I can look it up on the 95LX, give it to the court clerk, and have access to the official court file on any of my cases.

I now have a mini-office in my coat pocket. From home or anywhere, I can call anyone connected

with a case and discuss details without having to drag around a lot of paper. I can go to the library, log onto Westlaw (a popular legal database service) and never have to search for the appropriate billing number. I can even switch to another case without having to stop and find a new billing number.

### Fast Typing and Other Uses for the HP 95LX

Other lawyers began asking about the small machine I was wielding. Most wondered how I managed to type fast enough on such a small keyboard to keep up with the flow of a meeting or deposition. This is fairly simple for me. I cradle the palmtop in my two hands, holding it by my thumbs and ring fingers. This leaves my index fingers free to type. Based on my experience, I think that touch typing imprints the brain with the hand that is supposed to hit a key, as well as the finger. My index fingers seem to know right where a letter is on the keyboard, even though that letter is not the responsibility of the index fingers on the larger machines.

I recently purchased my wife a 95LX. She is a second-year law student and uses the palmtop to take class notes. We collaborate; buying RAM cards, trading hints, and trying to decipher the *HP 95LX User's Guide*.

She has complete transcripts of each of her classes in MEMO, stored on Memory Cards. (The 512K RAM cards are well-suited to higher education, if law school fits that description.) As she studies for finals, she uses the Find command to hunt up particular references, a momentary process by computer, a time-consuming search by hand.

### Conclusion

The 95LX offered me instant access to the minor details of my practice. In six months' time I was using the connectivity pack to access files in the office network, and using FILER (an incredible program) to consolidate and organize projects.

As time goes on, I'm sure I'll begin to experiment with LOTUS (which must be the big advantage of the 95LX, just look at the space devoted to it in the *HP 95LX User's Guide*). I'll learn more about COMM, HP CALC (but maybe never Reverse Polish Notation).

One main attraction of the 95LX is that it is constantly inviting you to put more of your mainframe or desktop computer in your coat pocket. So far, I have not been disappointed in the 95LX and its abilities. My guess is that my satisfaction will continue to grow.

By the way, when I spoke with HP Technical Support, they said HP makes many thousands of 95LX units a month. That is quite a success story in this day of wondering how America can find a way to compete on a global scale.

*[King Waters practices law with the firm of Womble and Spain in his hometown of Houston, Texas, U.S.A., and teaches trial advocacy at the University of Houston. He and his wife, Cheryl, have four sons who take them sailing and cycling.]*

## DERIVE a compact with more HP.



DERIVE<sup>®</sup>, A Mathematical Assistant is now available for palmtops through 486-based PCs.

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- Simplifies, factors and expands expressions.
- Does exponential, logarithmic, trigonometric, hyperbolic and probability functions.
- Taylor and Fourier series approximations.
- Permits recursive and iterative programming.
- Can generate Fortran, Pascal and Basic statements.

### System requirements

**PC version:** MS-DOS 2.1 or later, only 512Kb RAM and one 3.5" or 5.25" disk drive. Suggested retail price \$250.

**ROM-card version:** Hewlett-Packard 95LX Palmtop computer. Suggested retail price is \$289.

Contact Soft Warehouse for a list of dealers. Or, ask at your local computer store, software store or HP calculator dealer. Dealer inquires are welcome.

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(Continued from front cover.)

On May 4, HP enhanced its palmtop PC support to U.S. customers:

- 90-days of free support
- Extended hours
- Six-month support contracts
- Free automated assistance
- Pay-as-you-go 900 number

### 90-Day Free Support

This service is retroactive for all HP 95LX customers, and is available by calling (503) 757-2004. This number may be familiar to those of you owning an HP calculator — it's the number we've used for years to provide technical support to our calculator customers. For the first 90 days after you call and register with us, you'll receive unlimited access to Palmtop Customer Support. You'll receive answers to your questions about the use of HP palmtop products and accessories.

### Extended Hours

On-line technical support will be available from 5:00 a.m. to 5:00 p.m., Pacific Time to cover normal business hours from the East to the West coast of the USA. This service is available Monday through Friday.

### Six-Month Technical Assistance Contracts

Technical assistance contracts can be purchased from Hewlett-Packard. For \$149.00, you get a toll-free phone number and six-months of unlimited technical support for HP palmtop products and accessories. HP will accept payment by credit card (VISA or MasterCard). You can call HP at (800) 443-1254 to establish your support contract.

**Free automated assistance** will be offered 24 hours a day by calling (800) 443-1254. Answers to common questions will be available on our interactive voice response system. Application notes, product and other general palmtop information will be available via an automatic FAX. These features will be installed and operating by June 1.

### 900-Number Support Service

A 900 number will continue to be available for use by those who prefer to pay-as-you-go. The first min-

ute is free, the cost thereafter is \$2.00 per minute. The cost of the call is charged to your phone bill by your long distance service provider. Call (900) 288-0025 to receive technical assistance for HP palmtop products or accessories.

These new support enhancements are designed to make our department's services accessible to more customers. We will keep you informed of support changes by broadcasting messages on our automated assistance 800 number.

### European Support

Support for European customers is built into the price of the 95LX and is given free of charge. European HP dealers have been trained to answer questions and are the customer's first line of contact. Should a dealer be unable to answer a questions, he or she will pass the question on to the local HP support center.

### 95LX Upgrade for European and Other International Customers

Now international owners of the HP 95LX can upgrade their 512K palmtops to 1MB of RAM. The main PCA will be exchanged providing the user with the latest revision of the 95LX software and the 1MB of RAM.

The following versions of the HP 95LX can be upgraded from 512K to 1MB: Euro-English (ABB), German (ABD), French (ABF), Spanish (ABE), and Italian (ABZ). The U.S. English version (ABA) is not exported to other countries and can only be upgraded in the U.S. and Canada. (Please see front cover and page 5 of Mar/Apr 92 issue for details on the upgrade offer for the U.S. version.)

International upgrades are not performed in the U.S. Please DO NOT send international versions of the 95LX to the Corvallis Service Center. They will be returned.

The existing limited warranty will apply to the upgraded version and any out-of-warranty palmtops that are upgraded will receive a 90-day limited warranty. An existing warranty that will discontinue within 90 days will be extended to 90 days. Service centers will register upgrade customer's serial number to facilitate warranty coverage.

Customers can upgrade their

512K 95LX from April through the end of July, 1992. The cost will differ due to local currency conversions, but will be approximately \$250 (US).

Be sure you back up all files you wish to keep before sending your 95LX in for servicing.

Contact local service centers before sending your 95LX in for upgrade:

#### Phone Numbers for International Service Centers

Austria	0222/2500-0
Canada	800-268-1221
Denmark	45/99 10 00
Finland	90/887 21
France	01/46 31 69 09
Germany	06172/160
Italy	02/92 11 91
Netherlands	022/44 28 11
Norway	02/87 97 00
Portugal	011/617330
Spain	01/626 16 00
Sweden	08/750 20 00
Switzerland	062/97 48 48
United Kingdom	0734/696622

**Other International Service Centers** . . . Check the inside back cover of your HP 95LX User's Guide for the phone number and address of your local service center.

### 95LX-to-95LX Communication: Infrared Port Transfer Procedure

The 95LX's built-in software is stored on ROM. A new version of the software, 1.03A, is found in all 1MB 95LXs and in the newer 512K versions of the Palmtop PC. This release improves, among other things, FILER's ability to conserve battery power. In the new version, serial and infrared ports are not automatically turned on.

HP 95LXs with the new ROM will not establish a remote connection with another unit without first waking up the IR port on each unit. This is the case even if both machines are properly set up for IR communications.

To determine the software version on your 95LX:

1. Close all open applications.
2. Turn off the HP 95LX.
3. Hold down **[ESC]** and press **[ON]** to display the self-test menu and "revision" number. "Revision 9/20/91" indicates version 1.03A.
4. Press **[ESC]** to leave test menu.

When communicating between two HP 95LXs via the infrared port, the

IR port must be turned on manually. Do this in either of two ways:

1. Press **COMM** to turn on ports unconditionally. After doing file transfer, return to **COMM** and press **MENU Quit** to turn off the ports, or;
2. Press **FILER F6** on the 95LX that will act as Server. Wait until the connection attempt errors out (about 11 seconds). Press **ESC** to clear the error condition.

Use the following procedure to configure and establish a remote infrared connection between two HP 95LXs (version 1.03 A): Note: Save open files before transferring them.

The remote 95LX is also known as the "server" or "receiver." It will be controlled by the "local," "client," or "sender" 95LX. Set the remote and local 95LX up as follows:

#### REMOTE (receiver) 95LX SET UP

1. Press **FILER MENU Remote-Set Config**.
2. Set the Interface to **3 (Infrared)**.
3. Set the Baud rate (baud rate of both 95LXs must be the same).
4. Press **Quit Quit** to leave menus.
5. Press **COMM** to turn on the IR port and return to Filer.
6. Place the remote 95LX to the right, with display facing away from you (shown on page 20-19 of the *HP 95LX User's Guide*).

#### LOCAL (sender) 95LX SETUP

1. Press **FILER MENU Remote-Set Config Interface**.
2. Set Interface to **3 (Infrared)**.
3. Set the Baud rate (baud rate of both 95LXs must be the same).
4. Press **Quit Quit** to leave menus.
5. Position the local HP 95LX to the left of the remote HP 95LX as shown on page 20-19 of the *HP 95LX User's Guide*.
6. From **FILER** on the local 95LX press **F5 (Remote)** to establish the infrared connection.
7. From the local 95LX perform any desired file or directory operation between the two 95LXs. Press **F7 (Split)** to transfer files between the 95LXs.
8. Press **ALT F6** to disconnect the infrared connection when communication is complete.

**IMPORTANT:** After you've completed the file transfer, exit **COMM** to turn off ports (press **COMM MENU Quit**).

If only one 95LX has ROM version 1.03 A, you can follow the procedure above, or let the 1.03 A version be the local (sender) unit.

## Other News

By Richard Hall

### Hewlett-Packard Developing More HandHelds?

According to an article in PC Week, HP is developing additional handheld devices to be released some-

time next year. The article quotes an HP representative as saying that HP will base its "mobile information appliances" on standard hardware and software, allowing them to take advantage of existing software.

According to the article, the products in development include derivatives of the 95LX (customizable for specific uses), pen-based organizers, and a 3-pound subnotebook PC. The author of the article mentioned a subnotebook prototype shown earlier this year by HP that ran a ROM-based version of DOS, and included Windows and Windows applications.

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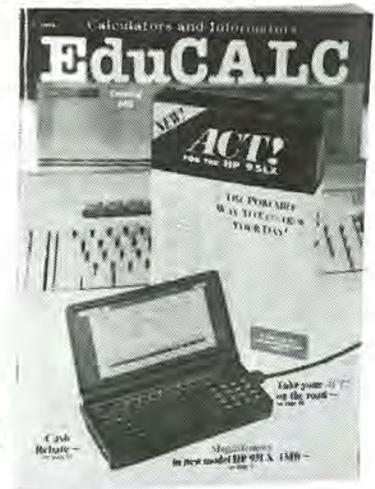


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# Accessing CompuServe Automatically With The 95LX

*Larry discusses his automated MESSAGE program for sending and retrieving of CompuServe messages using the HP 95LX.*

By Larry Lefkowitz

If you read the article on page 26 of the March/April 92 issue of *The HP Palmtop Paper*, you have learned that it is relatively simple to access CompuServe with your HP 95LX. You may have learned a couple of other lessons as well:

1. Reading and replying to forum messages and mail while connected to CompuServe can be an expensive proposition.
2. You must know and remember the necessary CompuServe commands to perform the functions you want.
3. A "convenience" factor is missing; to read or reply to a message, you must be directly connected to CompuServe over a phone line. You cannot accomplish this at times or locations that may be more convenient.

I used the HP 95LX to access CompuServe manually. However, I have used a program on my desktop to automate CompuServe, and I felt that there must be a better way for the 95LX. This led to the creation of a program called MESSAGE .

MESSAGE is written specifically for the 95LX and lets you automatically retrieve your CompuServe forum messages and CMail.

MESSAGE also lets you read and reply to messages while disconnected from CompuServe. This is not only much more convenient, but it greatly reduces your CompuServe connect charges.

The HP 95LX / MESSAGE combination affords an additional advantage over similar programs that run on desk-top systems; it's small enough to work on the 95LX. This

lets you carry a portable messaging system in your coat pocket and conveniently communicate from anywhere in the world. MESSAGE will be of interest to you if either of the following holds true:

- You own an HP 95LX and use CompuServe frequently, or would like to, or;
- You travel frequently and need a simple, portable way to retrieve your CompuServe Mail

The following describes a typical on-line session with the MESSAGE

program. (NOTE: To use MESSAGE with the HP 95LX, you will need a properly connected, 95LX-compatible modem. For advice on setting up a modem with the HP 95LX, see "How Do You Use DATACOMM," on page 33 of the January/February 1992 issue of *The HP Palmtop Paper*.)

## A Typical MESSAGE Session

First, start the MESSAGE program. The MESSAGE Control screen looks like this:

```

Main                MESSAGE                v1.0
-----
a 0 #mail           w 10 #practice
a+ #hpsys          #aspforum
#aspforum          #xtalk
#xtalk             #ibmcom
#ibmcom           #ibmprog
#ibmprog          #palmtop
#palmtop          #ibmnew
#ibmnew           #bprog
#bprog            #ibmapp
#ibmapp           #hannet
#hannet           #hpper
#hpper

+ Messages To Read  | Both
+ Messages To Send | Include/Exclude
Get Send, Read, Compose, Del, Mult
    
```

MESSAGE Control Screen

 On *The HP Palmtop Paper on Disk*, May/June 92.



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There is room on the Control screen for up to nineteen of your favorite forums in addition to CompuServe Mail. Before connecting to CompuServe, you can decide to receive messages from any or all of these forums. You choose to receive all messages from a forum, or just those messages sent directly to you.

Let's say you want to visit three of your favorite forums and retrieve messages from them. You also want to pick up your CompuServe Mail.

It takes a couple of keystrokes to select each of the three forums and CMail. All commands in the MESSAGE program may be selected from the menu with a single keystroke. This minimizes typing on the 95LX's small keyboard.

With just another keystroke, the MESSAGE program automatically dials CompuServe, logs you on, and goes to each of your three forums to retrieve your messages. Any messages retrieved are stored on the 95LX for later use.

If there is CMail waiting for you, MESSAGE will retrieve it. Binary CMail waiting for you is also automatically retrieved. Binary CMail are data files or program files sent from one individual to another via CompuServe Mail.

When all three of your forums are visited, MESSAGE disconnects you from CompuServe and returns to the Control screen. The whole process of retrieval happens very quickly. This keeps your connect charges far lower than a manual CompuServe session.

If messages were retrieved from CMail or your three selected forums, there will be a small arrow next to that forum on the Control screen. The arrow indicates that messages are available to read for that forum.

You decide to read some of the messages just retrieved. By entering the number that appears next to the forum's name on the Control screen, you can read messages retrieved from that forum.

When reading your messages, the screen looks like what follows:

```
#: 16506 S14/HP95LX.Palmtop
  27-Jan-92 12:19:38
Sub: #16496-Page Formatting
Fm: Ted Dickens (Sussop) 76781,272
To: Eric S Kaplan 76217,2474
```

Let's keep the patriotic furor to a dull roar around here. The 95LX will succeed because it's the best palmtop in the world.

Reply, Save, Compose, Bk, Gm, Id, Main

#### MESSAGE Screen

Messages are displayed one at a time, and you may scroll backward and forward within a message, and between messages. If a message is too wide to fit on the 95LX, forty-column screen, it is automatically wrapped to fit. A "bookmark" feature allows you to save your place and easily return to a message.

While reading a message, you may decide you want to send a reply. Press one key; a word processing screen will come up and allow you to enter your reply. When you are done with your reply, one key press saves it on your 95LX. The next time you use MESSAGE to connect to CompuServe, your reply

will be automatically sent.

After reading and replying to your messages, let's say you decide to create and send a message to a friend. Press a key, and the word processing screen will appear so you can compose your message. When finished, a built-in address book feature will allow you to send the message to one of fifty different CompuServe users without having to remember or type in their name and CompuServe user ID.

You've finished reading your messages, replying to some, and composing a new message. You now want to send the replies and the new message you wrote back to CompuServe. Connect the 95LX to your modem, switch your modem on, and press two keystrokes.

MESSAGE again automatically dials and connects your 95LX to CompuServe, and visits your selected forums. If you replied to, or composed a message for, a forum the program will automatically send each of your messages to the proper person. When done, MESSAGE disconnects from CompuServe.

#### Accessing HP 95LX Support on CompuServe

CompuServe offers a world of useful knowledge about your 95LX through the HP Systems Forum. In the message area, you can ask questions about your palmtop, and receive answers from other 95LX users. HP and other vendors post updates about products available for the 95LX, and the library areas contain a wealth of public domain and shareware files for your palmtop. Many of the contributors to the Palmtop Paper use CompuServe, and their CompuServe addresses are shown next to their names so you can exchange electronic mail with them.

If you already have a CompuServe account, type **GO HPSYS** to access the HP Systems Forum with its 95LX section. If you don't yet have a CompuServe account, HP has made arrangements for you to obtain an Introductory Membership. Call one of the following telephone numbers, and ask for Representative 231:

Country	Toll-Free Phone Within Country	Phone From Outside This Country
Argentina	(+54) 1-322-1864, 5934	
Australia	008 02 5240	(+61) 02 411 8603
Chile	(+56) 2-696-8807	
Germany	0130 37 32	(+49) 89 66550 111
Japan	0120 22 1200	(+81) 03 3221 7363
New Zealand	0800 44 6113	
South Korea	080 022 7400	(+82) 2-569-5400
Switzerland	155 31 79	
Taiwan	(+88) (6) 2-515-0330	
UK	0800 289 378	(+44) 272 255 111
US & Canada	(800) 848-8199	(614) 457-0802
Venezuela	(+58) 2-793-2984,2384,8694	

This completes a typical cycle of using the MESSAGE program.

### A Look Behind the MESSAGE Program

Although MESSAGE appears to be a single integrated program, it is actually the seamless marriage of three separate elements;

1. The MESSAGE  program — written specifically for the HP 95LX using the Borland Turbo C++ language.
2. The COMMO  communications program — a highly acclaimed shareware communications program that is small, fast, and powerful. COMMO is an ideal companion for the 95LX. (See page 24 in the Jan/Feb 1991 issue of *The HP Palmtop Paper* for more on COMMO.)
3. A text editor — allowing you to reply to messages or create new ones. (The built-in MEMO program will not work with MESSAGE). The text editor I highly recommend for use with MESSAGE is VDE , another highly regarded shareware product that has been modified for use on the HP 95LX. (See page 41 of the Fall 91 issue and page 27 of the Jan/Feb 92 issue for more on VDE.)

All three programs are available in the 95LX Library of CompuServe's HPSYS forum, or on *The HP Palmtop Paper ON DISK*. If you don't feel you have enough room on your 95LX for a separate editor, you can save storage by specifying the use of COMMO's built-in editor.

A RAM card or the new 1MB 95LX is the recommended configuration for running MESSAGE.

The fully installed MESSAGE program system, consisting of MESSAGE, COMMO and VDE, takes about 110K of disk storage space. This assumes you reduce the size of

the program files by using a compression program such as PKLite or DIET. (For information on DIET, see page 17 in the Fall, 1991 issue of *The HP Palmtop Paper*.)

Beyond the storage space required for the MESSAGE program files, you will need room for the messages and CMail retrieved from CompuServe. I recommend using file compression software on the 95LX with its limited RAM.

Two installation programs are provided with MESSAGE to ease the start-up process. The first program sets up MESSAGE to run properly on your 95LX. The second program goes on-line and changes CompuServe settings as required. If you already use TAPCIS or AUTOSIG, there is an excellent chance that CompuServe is already configured properly for MESSAGE.

### Ordering Information

MESSAGE is a shareware program (\$20 registration) available in the HP 95LX Palmtop library (14) on

the HP Systems Forum (GO HPSYS). The filename is MESSG.EXE. It is also available directly from *Larry Lefkowitz, 199 Martin Circle, Royal Palm Beach, FL 33411* (please add \$5 for disk and shipping, \$10 for shipping outside the U.S.).

COMMO, required to run MESSAGE, is a shareware communications program (\$35 registration) is available in the 95LX Palmtop library (14) of the HP System Forum (GO HPSYS). Files COMMO9.ZIP and COMMO.ZIP must be retrieved.

The VDE editor, a shareware program with optional personal use registration (\$30), is highly recommended for use with MESSAGE. The filename is VDE.ZIP and can be found in the HP 95LX Palmtop library (14) on the HP Systems Forum (GO HPSYS).

If you have any questions on the MESSAGE program, you may address a CMail message to *Larry Lefkowitz, 76137,155*. Support for registered users of MESSAGE is also provided via CompuServe Mail.

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 On *The HP Palmtop Paper on Disk* MESSAGE on the May/Jun 92 issue; COMMO on the Jan/Feb 92 issue; VDE on the Fall 91 issue.

## Running PC-Compatible Programs On The HP 95LX

*Mark discusses how to check to see if a program that runs on an IBM compatible PC will work on the 95LX. He also describes procedures for customizing DOS programs for the 95LX, and lists DOS programs that will run on the 95LX.*

By Mark Scardina

We first introduced a chart of DOS programs compatible with the HP 95LX on page 20 of the Fall, 1991 issue of *The HP Palmtop Paper*. This month I'll expand on it, but first I'll discuss the procedure for customizing programs that run on IBM PC compatible computers so that they will work on the 95LX.

### 95LX Has Limited PC Compatibility

Hewlett-Packard states that the 95LX has limited DOS compatibility at a level equivalent to DOS 3.20 on your PC. This does not mean the HP 95LX is completely IBM PC compatible or that everything that runs under DOS 3.20 will work on the 95LX. There is a temptation to simply copy a program to the 95LX and try to run it. RESIST THIS TEMPTATION, or at the very least back up everything that you have on the 95LX. A program that is incompatible with the 95LX may cause you to lose your files.

### Checking a Program's Compatibility

The first step is to check the program's requirements. Look in the owner's manual for display and memory requirements:

**Display requirements** — any program which cannot work with an MDA (Monochrome Display Adaptor) display, cannot function on the 95LX. The 95LX does display graphics, but it does so in a noncompatible mode due to its screen size. Programs requiring CGA, EGA, or VGA displays will not work on the 95LX.

**Memory requirements** — a pro-

gram's memory requirements tell you how much system RAM you must have available to run the program. You can check your available memory by running CHKDSK on your 95LX from DOS (go to FILER, highlight CHKDSK and press **F4** (Run)). You can adjust the amount of system RAM you have by entering SET UP and then pressing **System Memory**. Press **▶** or **◀** to decrease or increase the amount of System RAM and RAM disk you have and then press **ENTER**.

Due to their size, some programs may require you to run them without System Manager (SYSMGR) being loaded. Disabling System Manager (and the built-in applications with it) saves an additional 80-85K of memory. Pressing **FILER** Menu System to enter DOS does not disable System Manager or save you any disk space. The minimum procedure for disabling System Manager is as follows:

1. Enter MEMO and create a new file named CONFIG.SYS (or modify an existing CONFIG.SYS file).
2. Put the following command as the first line in CONFIG.SYS:  
  
`shell=command /p`  
  
(be sure there is an empty space between "command" and "/p").
3. Save the file and reboot your 95LX (press **CTRL ALT DEL**). Your 95LX should come up with the DOS C prompt.

If, after this procedure, you ever need System Manager, type \$sysmgr from the DOS prompt. (Setting up a method of choosing between DOS and System Manager is described in "DOS Tips" on page 22 of the Fall

1991 issue of *The HP Palmtop Paper*.)

Even after following this procedure, programs that require Expanded Memory or Extended Memory will not run on the 95LX.

**Serial port requirements** — programs that access the serial port will fail on the 95LX if they try to access COM2, or attempt to transmit or receive data using interrupts. This information is not easy to find in documentation, but a call to the program's tech support number, or the programmer, should provide the answers. Most file transfer programs do not use interrupts, while most communication programs do.

### Eliminating Unnecessary Files

Many programs come with a lot of files, not all of which are necessary for the program to run. Once you've determined that a program may run, you need to determine which files are necessary and which you can eliminate to save disk space. Frequently, the documentation lists the purpose of each file. Most of the time you can eliminate files described as follows:

Help Files  
Install Files  
Display Drivers  
Font Files  
Text Files

My approach is to create a temporary directory on my desktop PC, copy all of the files there, and then examine them one by one, making note of what program functions I lose if I eliminate the file. I decide what I really want out of a program and load only the files I need. If I've eliminated too many files, the program will either not run or will run and prompt me for the file it needs but can't find.

### Configuring a Program for the HP 95LX

Now that we have a list of the necessary files, the next task is to configure the program to run on the 95LX. It's always good to do this on a PC as many files are not needed once a program is configured.

Most programs allow you to specify color, monochrome, or LCD display. Colors you choose for a PC display are opposite to those on the 95LX. Configure the program for white text on a black background, and you'll get black text on a white background on the 95LX. Select MONOCHROME and LCD if possible. Otherwise the two colors available are numbered 07 and 70. Since there are no gray scales on the 95LX, you may have to play with the color assignments quite a bit to get a useful display. (NOTE: Some programs require you to set them up on the actual computer that they will run on. MemoryMate is one such program.)

Next, we need to find out whether the program will let us size the display. Some programs include that capability in their configuration. Other programs have the ability to split the display screen into "Windows." For example, some word processors can split the screen in half and display two documents at once. Sometimes the size of the window can be adapted to the 95LX's 40x16 display.

If a program does not have the ability to change its display size, we can still use the program by setting the 95LX's display command, DISPCTL, properly (see sidebar). By including the DISPCTL command in a batch file that launches our program, the program can be configured automatically.

The final step we need to take is to determine which, if any, environmental variables need to be set up. Environmental variables are used to control the behavior of the operating system and of some programs. These variables are typically set up using SET or PATH commands issued from the DOS prompt or included in your AUTOEXEC.BAT file. For example, PATH=C:\\_SYS specifies a directory path. If you attempt to run a program or batch file from DOS, it will first look for the program in the current directory, and then in C:\\_SYS, the directory you specified in the PATH command.

You can include SET or PATH commands in your AUTOEXEC.BAT

file. If you do not have an AUTOEXEC.BAT on your 95LX, you would need to create one. (For information on creating an AUTOEXEC.BAT file see "Automatic Execution," page B-18 of the *HP 95LX User's Guide*. Also, check these references in the *The HP Palmtop Paper*: "DOS Tips," Fall 91, page 22; "DOS Tips," Jan/Feb 92, page 22; "APNAME.LST," Mar/Apr 92, pages 9-10.) After inserting the required statements at the start of your AUTOEXEC.BAT, you are ready to copy the files to your 95LX.

### Testing the Program on the 95LX

Now we can transfer the files to the 95LX and prepare for a trial run. At this point, make sure that there is nothing on the 95LX that you can not afford to lose. If you have created the CONFIG.SYS file described on the previous page, press **CTRL** **ALT** **DEL** to reboot and bring up the DOS prompt.

Start the program the same way that you would on your PC and observe closely its behavior. Also start the program on your PC. This will give you a full screen for reference.

If the screen stays blank or is frozen it is likely that the 95LX has locked up. Please follow the following steps if that occurs:

1. Press **ALT**-ArrowKeys to try to move the 95LX's window. It is possible you are seeing a blank portion of the screen.
2. If 1 fails, press **CTRL** **ALT** **DEL** to reboot the 95LX.
3. If 2 fails, press **CTRL** **ON** to reboot the 95LX and answer **NO** to the "reinitialize" prompt.
4. If 3 fails, remove and reinsert the main batteries without the AC adaptor being plugged in.

If you get the above results, carefully study the program's documentation with regards to memory requirements, display modes, and serial port usage. Remember, you can enter SET UP and press **System Memory** to increase the system memory. NOTE: COM2 must never

### Viewing an 80-column by 25-line DOS Program on the 95LX

When you are operating from DOS the 95LX display shows you part of the full 80-column by 25-line DOS screen. Whenever your cursor moves out of the screen in any direction, the 95LX window adjusts to show the portion of the screen the cursor has moved into. This feature is called "cursor tracking."

The DISPCTL command enables or disables the automatic cursor tracking and/or the Alt-Arrow key movement while operating from DOS. (The default setting when you boot your system is for both to be enabled.)

Disabling the automatic cursor tracking is desirable if, while operating some DOS programs, you find your display jumping around to undesired areas of the screen. For example, Norton Utilities seems to leave the cursor at the bottom right corner of an 80x25 screen all the time. Every time Norton Utilities writes to the screen, the 95LX user has to scroll the display up to see what's written at the top. With cursor tracking disabled, the screen only scrolls when you use the Alt or Alt-Shift cursor keys. To disable automatic cursor tracking enter the following command from the DOS prompt:

```
dispctl -c
```

To enable automatic cursor tracking, reboot the system (press Ctrl-Alt-Del) or enter `dispctl +c` from the DOS prompt.

The Alt-Arrow and the Shift-Alt-Arrow keys also move you around the full 80-column screen. You can disable these keys with `dispctl -k` and enable them with a reboot or `dispctl +k`. Both C and K can be used together, but you must use at least one of them with the command.

be checked by the program or the result will be a lockup.

Once you get the program running, give it a quick run through noticing how the screen is behaving. If your display is jumping around to areas that are not desired, exit the program and type `dispctl -c` at the DOS prompt. Launch the program again and observe whether the screen action is more useful. The DISPCTL -C command disables Cursor Tracking, so you must manually press **ALT**-ArrowKey or **CTRL** **ALT**-ArrowKey to view the rest of the display.

As you run through the program, perform the same keystrokes on your PC. This will allow you to gauge the effectiveness of your setup. Additionally, problem areas can be quickly spotted.

### **Keyboard Can Limit Useability of a Program**

The keyboard is one area that can be difficult to work around if problems are encountered. The 95LX has an extended keyboard, with numbers normally found on full-sized keyboard's top row located on the 95LX's keypad. Also found on the 95LX's keypad are the + - \* and / symbols normally found on a standard keypad. Some programs see a minus sign (-) generated on a keypad as different from a (-) generated on the top row of numbers. In addition, Shift Arrows do not exist on the 95LX as they do on a PC. These limitations may restrict the functionality of a program, or make it unusable.

Many programs such as Grandview have the ability to reassign keys. You can configure new key assignments on your PC and then copy the keyboard files over to the 95LX. Other programs will let you set up macros for specific keys, or key in ASCII codes to enter a specific character. For example, PC-Outline uses the numpad (-) to change the screen size of the outline. This means that on the 95LX there is no direct way to enter a (-) into the text. However, you can hold down **[ALT]** and press **45**, the ASCII code for the minus sign character. (For more on creating 95LX characters using ASCII code, see page 39-40 of the Mar/Apr 1992 issue of *The HP Palmtop Paper*.)

Many DOS programs can create macros. If you regularly use (-) you can create a macro in the program to enter (-) and assign it to, say, a Ctrl-key combination.

### **Compressing Files to Save Disk Space**

After you have gotten a program configured and tested, you can look at reducing its storage requirements

through file compression. NOTE: Most programs that use a separate configuration program must NOT be compressed until after they are configured. Also, if you need to reconfigure these programs, you must decompress them first.

DIET  and PKLite  are two utilities, freeware and shareware respectively, that will compress .COM and .EXE files to reduce the storage space. When loaded the program automatically expands in memory and does not need to be recompressed. DIET generally creates at least 10% smaller files, but executes slightly slower than PKLite. Support files for most programs may not be compressed unless the compression utility is always present in memory (like Stacker or DIET) or unless they are decompressed manually prior to use. (For more on DIET, see page 17 of the Fall 1991 issue.)

One further bit of advice; do not be shy about contacting a program's publisher or programmer about modifying the program to allow greater compatibility on the 95LX. Most authors are trying to increase the number of machines on which their programs run and will be receptive to discussing modifications. This is especially true of shareware authors. Frequently the modifications are trivial, but you should be as clear as possible in your request, as authors will not likely have access to a 95LX. The Palmtop libraries in CompuServe's HPSYS Forum can provide great assistance in this area.

### **Running the Program from System Manager**

Ideally it would be nice if you could run the program with System Manager still operable. That way you wouldn't have to exit the program and restart SYSMGR to use your built-in applications. To see whether it is necessary to disable the System Manager, open FILER and press **[MENU]** System. This will let you exit

to DOS temporarily, but keeps SYSMGR running in the background.

Try running your program again, but remember that you have 80-85K less memory to work with. You may have to go into SET UP and then increase the size of your System RAM to get the program to run.

In this issue we have expanded the DOS software chart to include new programs that have been tested on the 95LX. If you find your favorites also work, send us a note providing as much information as possible in order that we may pass it on.

*[Mark uses his 95LX for PIM, E-mail, entertainment, and programming sophisticated audio/video systems. He is President of Audio Video Entertainment Media, an A/V communications firm. Those needing audio/video equipment assistance can call him at (415) 681-9672 in the U.S. his CompuServe ID# is [71551-467].]*

## **Learn To Program In Forth On Your 95LX**

Turn your HP 95LX into a portable software development system with UTIL, a System Manager compliant implementation of the Forth language.

- ✦ Includes Forth compiler / decompiler, 8086 assembler / disassembler, and user's guide with source code examples
- ✦ Creates compact, System Manager compliant executable files, and loaders for .COM or .EXE files
- ✦ Small kernel of under 11K maximizes space for data and programs
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 DIET: on *The HP Palmtop Paper On Disk*, Fall 91.  
PKLite: on *Palmtop Paper On Disk*, Mar/Apr 92.

## DOS Programs That Run On The HP 95LX

■ – ON THE HP PALMTOP PAPER ON DISK

Program Name	Company	Phone	Description	Type	Source	Works with- in SYSMGR	40 Col Display?	Files Required	File Size	Diet Size	Installation and Program Use Notes.
FastLynx	Rupp Corp	213-850-5394	File Transfer	Communications	Commercial	N	N	FX.EXE	114K	74K	Setup to access COM1 ONLY.
ZIP.COM ■	CIS:Go HPSYS Lib 14:ZIP.ZIP		File Transfer	Communications	Shareware	N	Y	ZIP.COM	9K	7K	Configuration Program Provided.
VDE ■	CIS:Go IBMAPP Lib 1:VDE162.ZIP		Word Processor	Text Editor	Shareware	N	Y	VDE.COM	57K	38K	Config. Program with 95LX option included.
QEdit ■	CIS:Go IBMAPP Lib 1: Text Editor	404-641-9002	Word Processor	Text Editor	Shareware	N	N	Q.EXE	48K	32K	QE-95.ZIP, special 95LX setup file on CIS: Go HPSYS Lib 14, Use Window mode for 16 lines.
Grandview	Symantec	408-293-9600	Outliner/Calendar/Organizer	Outliner	Commercial	N	Y	GV.*	420K	280K	Reconfigure number,operator keys on PC, Create startup macro to resize window.
PC-Outline ■	CIS:Go IBMAPP Lib 2:PCO334.ARC		Similar to Grandview outliner	Outliner	Shareware	N	Y	PCO.EXE, PCO.CFG,PCOMAC. CFG	74K	50K	Operator keys need macro or ALT-ASCII #, Use macro to create Window.
OutlinePlus ■	CIS:Go HPSYS Lib 14:OUTL95.ZIP		Outliner/Text editor. Creates ASCII files	Outliner	Shareware	N	Y	OUTLINE.*	65K	35K	Special 95LX configuration provided.
Diet ■	CIS:Go IBMSYS Lib 6:DIET12.EXE		Multifunction File Compressor	Compression	Freeware	Y	N	DIET.EXE	22Kn	n/a	Run as a TSR or manual file compression/see Fall 91 issue.
PkLite ■	CIS:Go HPSYS Lib 2: PKZ110.EXE		.COM and .EXE file compressor	Compression	Shareware	N	N	PKLITE.EXE	14K	n/a	Do not compress .EXM files.
Stacker	STAC Electronics	619-431-6712	Memory resident compression utility	Compression	Commercial	Y	N	STACKER.COM	42K	n/a	Must be installed on 95LX/see STAC.ZIP on HPSYS Lib 14. Only use on RAM-cards 512K or greater, not C drive.
COMMO ■	CIS:Go HPSYS Lib 14:COMMO.ZIP, COMMO9.ZIP	707-573-1065	Full Featured Comm program including a Macro language.	Communications	Shareware	N	Y	COMMO.*	47K	41K	95LX Configuration Provided 95LX specific instructions, System executable loader provided.
Ozbext II ■	CIS:Go IBMCOM Lib 10:OZBEXT.ARC		B+ Download/Upload protocol for CompuServe	Communications	Freeware	N	N	OZBEXT.EXE	77K	41K	Configure for COM1, (COMMO) comes setup to use it.
UNO ■	CIS:Go IBMSYS Lib: 7 UNO13.ZIP		Pop-up or stand alone free-form database	Database	Shareware	Y	Y	UNO.EXE or UNORES.EXE	52K	30K	Can be run from Filer or as a TSR before SYSMGR. It will pop-up within the built-in apps. Registered users receive the 95LX-specific version to accommodate screen size and colors.
Infoselect	Micro Logic Corp	201-342-6518	Freeform database and calender with To-do Lists	Database	Commercial	N	N	IS.EXE, GLOBAL.GA, BASE.WD, MENU.WD, USER.WD, NORM.LA SCREEN	133K	87K	Set for Single window pop-up to screen size. Run in nonresident mode,Cursor track off.
MemoryMate	Broderbund	415-492-3500	Freeform database similar to Toronado, InfoSelect	Database	Commercial	N	N	MEMO.EXE, MEMO.KEY,	72K	45K	Must be installed on the 95LX, Use in the standalone mode.
KBfix2 ■	CIS: Go IBMSYS Lib 3:KBFIX2.ARC		Capslock Control and display	Utility	Freeware	Y	Y	KBFIX.COM	7K	5K	USE CMD Line: /B0 /C37 /R15 /T0 /D1 /F1 /V0
ANSI.COM	CIS:Go Ziffnet		Command line ANSI program	Utility	Freeware	N	N	ANSI.COM	3K	2.8K	Loaded and unloaded from FILER
ATTR.COM	CIS:Go Ziffnet		File attribute change utility	Utility	Freeware	N	N	ATTR.COM	.5K	n/a	Used to change File attributes including SETUP ENV
STICK.COM ■	CIS:Go HPSYS Lib 14:JAGSER.ZIP		Sticky CTRL/ALT key utility	Utility	Freeware	Y	N	STICK.COM	1K	1K	Must be loaded before SYSMGR
UMA ■	CIS: Go IBMSYS Lib 3: UMA10.ZIP		Macro key program	Utility	Shareware	Y	N	UMARES.EXE	15K	9K	Must load with /F and before SYSMGR, 95LX version allows macros to work w/ built-in apps. registered users receive 95LX-specific version.
Manifest	Quarterdeck	213-392-9701	System setup and hardware analyzer	Utility	Commercial	Y	N	MFT.EXE	75K	48K	Can be loaded before SYSMGR or from FILER

## The 1992 HP Palmtop Paper Subscribers Disk

*It's finally here, and well worth the wait. Find out what's on the disk, how we selected it, and how easy it is to use. One program, WEEKABK, gives you a week-at-a-glance screen for your Appointment Book.*

By Hal Goldstein

You've patiently waited for our free 1992 Subscribers Disk. It will be mailed out in June, so expect it in late June or early July. We decided to wait until the mid-year before releasing the disk, because we felt that it would take some months before the best free utilities for the 95LX were developed or discovered.

### How We Selected Contents

We had a number of criteria and many challenges in creating the disk. The first criteria was that each offering was to be free. That is, the author of the program put it in the public domain not expecting any commercial benefit from his efforts. Each program on the disk represents many hours of labor. We can all thank authors of these programs for their willingness to share the fruit of their efforts with others.

We realized that most 95LX users don't have much spare time, and so our second criteria was to find software that was easy-to-use, easy-to-learn, and easy-to-install.

Thirdly, out of the many programs to choose from, we tried to select those programs which the vast majority or at least a significant segment of our readers could take advantage of.

Since most of you are busy people, we decided to create the means whereby you could start using much of the disk as quickly and easily as possible. This approach also presented a number of challenges.

How could we create a quick-start, easy-to-use environment for programs written by different authors, many designed to run from DOS rather than System Manager? How could we plan for the many

different configurations of desktops and HP 95LXs? Considering 95LX users alone, some have plain 512K systems and never use DOS while others have 1 MB HP 95LX, use several RAM cards, and have quite a sophisticated setup using AUTO-EXEC.BAT, CONFIG.SYS, and AP-NAME.LST files.

### MENU95 to the Rescue

Ed Keefe volunteered his MENU95 program and worked on auto-installation. As described on page 19 of the Jan/Feb 1992 issue of *The HP Palmtop Paper*, MENU95 provides a menu for the DOS programs you want to run. MENU95 can be popped up without closing down PHONE, MEMO and other built-in applications (1-2-3 has to be closed). That means you can pop up MENU95 and invoke many of the games and utilities that are on the Subscribers Disk.

We pre-installed many Subscribers Disk programs into MENU95. Ed also modified MENU95 for the Subscribers Disk so that DOS programs that required file names could be run easily.

The final challenge in creating the disk was to make the documentation as understandable as possible. We rewrote the authors' documentation where we felt it necessary.

### Support

We hope you understand the logistical impossibility of providing support for thousands of our readers on each of the many programs on the disk. We did our best to select the most useful and easy-to-use software. However, some users may very well have problems with some programs.

CompuServe will be one means for getting support on software on the Subscribers Disk. Many of the authors of the software hang out in the HP forum. Other users of the Subscribers Disk will also be able to help.

We are also considering a 900 number similar to HP's for help related to our publication and disks. We are interested in your feedback on this.

### What's on the Disk

As of this writing, we have not finalized the disk. In general we divided the contents into five categories; general utilities, games, templates, TopCard files, and technical utilities.

First, we selected utilities that we thought all users would gain from. In particular, we have selected programs that test 95LX and RAM card batteries, that compress files to save space, that replace missing DOS utilities, and much more. One of the highlights of the disk is a week-at-a-glance System-Manager compliant appointment viewer which contributing editor Mark Scardina describes at the end of this article.

We have games of logic and action. Highlights include Tetris and a Las Vegas style blackjack game where you can practice counting cards.

There are several Lotus templates included on the disk. Ed Keefe includes a great example of a PHONE data base that provides help to HP Solve users.

If you're bored with your name and address sign on, you could have Albert Einstein or a Windows Opening screen if you'd like.

Finally, for the more technically inclined, we include a program that lists key codes for the 95LX — necessary for installing System Compliant .EXM files, a programmer's calculator and more. All in all, we hope you will be able to make use of the software that is available on the free 1992 Subscribers Disk. (Note: as of this writing the disk is not yet finalized, we may substitute for any of the programs mentioned above.)

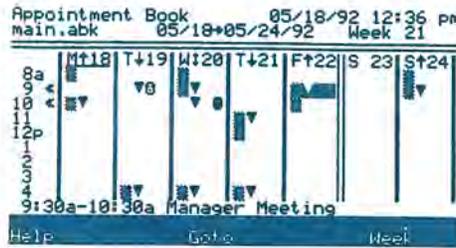
## WEEKABK

By Mark Scardina

Many users complain that they do not have the ability to see a week of appointments at a glance. Ehood Baratz, a talented Hewlett-Packard employee in Israel, has responded with WEEKABK.EXM. This is a System-Manager compliant program able to pop up just like your built-in applications.

Once activated with its hotkey, it provides a graphical view of your appointments for an entire week. Days are arranged horizontally across the top with a vertical timeline for each. Appointment times are shaded with an arrow indicating the start of each appointment.

Moving the cursor to the start of an appointment displays the duration and title of that entry. Since this program reads your current .ABK APPT file you do not need to re-enter the information here.



WEEKABK Screen

WEEKABK requires 12K of disk space.

Using the program is as simple as pressing its hotkey. WEEKABK only displays appointments that have been saved, so you must remember to save your current APPT file. This forces you to regularly save your .ABK file after each entry. Multiple appointments at the same time are supported by prefacing them with the "happy face" ASCII characters. These can be inserted while in APPT by pressing **[ALT]-1** and **[ALT]-2** at the start of the appointment title.

I especially like the fact that WEEKABK indicates at the top of each day if there are any additional appointments not being displayed. Earlier ones are indicated with an up arrow and later ones by a down arrow. Weeks are scrolled by pressing PGUP (**[↑]**) or PGDN (**[↓]**). You can press **[F5]** to go to a specific date. WEEKABK also supports jumping to a week number by pressing the **[F9]** key.

My only criticism is that loading the program and jumping to different weeks is not a speedy process. This is due in large part to the format of the APPT file and the size of your own APPT file.

WEEKABK will be part of *The HP Palmtop Paper 1992 Subscribers Disk*. Ehood has a simple request for those that find his program useful. He would like them to send him a postcard of their hometown! This rather unique price is but a small one to pay for this permanent addition to my 95LX.

## User To User

### User To User

**Hal reports on the future of System Manager and wireless communications, updates information on long-lasting AA batteries, discusses "vaporware," and describes the difference between The HP Palmtop ON DISK, the Subscribers Disk, and the printed version of The HP Palmtop Paper.**

By Hal Goldstein

*[In this new informal column I will pass on notes from conversations I have with those influential in the 95LX marketplace, and from experiences I've had with the 95LX and its accessories.]*

#### Lotus committed to System Manager

I recently had an interesting talk with Lotus Corporation's Leon Navickas, the head of R & D when the HP 95LX was being developed.

In fact, Leon was the driving force of the HP 95LX from the Lotus side. He got the idea of a Lotus 1-2-3 palmtop and called Hewlett-Packard's Dan Terpack, the head of the Corvallis Calculator Division. It turned out that HP had been working on a palmtop. HP and Lotus exchanged ideas and engineering talent and the 95LX evolved as we have come to know it. HP worked on the hardware and HP CALC, Lotus wrote most of the rest of the built-in applications.

In the course of our conversa-

tion, Leon mentioned that Lotus was committed to System Manager and the Personal Information Manager applications (PHONE, COMM, FILER, APPT, and MEMO). Lotus developed System Manager and these applications. Lotus plans to put versions of these System Manager applications on future HP Palmtops and in future palmtops with other manufacturers. This is good news for HP 95LX users. It means we might see improved versions of HP 95LX software and hopefully additional add-in products that will work with these PIMs.

#### Wireless Communications: The Future of Palmtops

Hewlett-Packard and Leon Navickas from Lotus see wireless communications as a wave of the future. At the recent Spring Comdex, half the space devoted to the HP 95LX at the Hewlett-Packard booth went to the Motorola NewsStream Receiver and the Erikson GE Mobidem

**Wireless Receiver.** The idea is that in the future you can literally be anywhere and transmit and receive electronic mail. This would give Email users a freedom similar to cellular phones users.

I learned in talking to service providers that there are still some kinks to be worked out with these wireless systems. The first to be able to use these wireless systems will be those in major U.S. cities. As more people use Email and as greater geographic areas are served, the popularity and convenience of Email should increase.

We are thinking of devoting a regular column to wireless communication in the 1993 *HP Palmtop Paper*. I will be interested in your feedback on this.

### **Lithium Double A Long Lasting Batteries**

I spoke with the marketing manager of Eveready's **Lithium AA Batteries** discussed on page 38 of the January/February issue. You will recall that I was extremely enthusiastic about these batteries. My experience was that these batteries actually quadrupled the battery life of my 95LX and the batteries themselves weighed about half as much as the normal alkaline batteries. (Editor's note: Mark Scardina tested the batteries and thinks that a doubling of battery life is a more accurate estimate.)

The Eveready manager and I spoke about possibilities of how to get these batteries out to HP 95LX users soon, since these batteries probably won't be found in stores for another year. One possibility that we discussed is for our company, Thaddeus Computing, to offer sets of these batteries through the mail. If it doesn't make economic sense for us, we will try to work with Eveready to find another way of making these batteries available to 95LX users.

### **Vaporware**

The term refers to computer products that are promised and even advertised, but never seem to materialize.

We have not heard anything from the publishers of **Managing Your Money**. When the 95LX was first introduced, we expected a version that would work with the 95LX. In a way, these kinds of promises are unfair to other companies that have products ready to ship. For example: **Autobyte's Money Manager** has been well-received by users (I have not had the opportunity yet to try the program). Similarly, CM Software has had a straightforward System-Manager compliant Contact Manager program called **Pocket Sales Force** that was introduced shortly after the 95LX was, and is System-Manager compliant. ACT!, its well-publicized competition, only recently started shipping. ACT! is not System-Manager compliant.

On the other hand, popular programs such as ACT! and **Managing Your Money** are well established and may be worth the wait. People are used to these programs on their desktop PC and transferring data should be a snap.

Speaking of Vaporware, we were sorry to learn that Nuvotech recently went out of business. Nuvotech had been advertising (but not yet shipping) an **Apple Connectivity Pack**. We reviewed Nuvotech's **DOS Connectivity Pack** last issue and liked it. Apple users should check out the review of **MacLink Plus PC**, by DataVis (page 17 of the Mar/Apr 1992 issue of *The HP Palmtop Paper*).

After our review appeared last issue, DataViz made some modifications to their best selling MacLink - Plus software to even better suit HP 95LX users . . . and they have reduced the price of their HP 95LX version to \$99. They now include the 95LX to Mac serial cable (along with a Mac to IBM PC serial cable).

MacLink Plus automates conversions for 95LX Lotus 1-2-3 WK1 and MEMO TXT files to and from a number of Macintosh formats including MacWrite, MS Works, MS Word, WordPerfect, and Excel. If you print your PHONE or APPT books to a .TXT file with the Menu Print File command, you can read those files into a number of MAC

### **HP Palmtop Paper ON DISK Separate from Printed Edition**

*The HP Palmtop Paper ON DISK is a separate product from the printed edition of The HP Palmtop Paper. The free Subscribers Disk comes with a subscription to the printed edition of The HP Palmtop Paper and should not be confused with The HP Palmtop Paper ON DISK. You'll receive your free Subscribers Disk sometime in early July!*

*In almost all cases, The HP Palmtop Paper ON DISK subscribers will want to receive the printed edition of The HP Palmtop Paper.*

programs. Once connected, your 95LX appears as if it were another MAC drive and with a few clicks, you can back up, transfer, and translate files.

HP 95LX wireless communications and the Motorola NewsStream receiver in particular (first reviewed on page 4 of the Fall 1991 issue of *The HP Palmtop Paper*) is another example of a delayed product. A lot of the problem has to do with putting together the wireless networks to allow the service. Our understanding is that HP 95LX users will be able to purchase the NewsStream receiver along with the paging service through selected HP dealers and through such providers such as SkyTel (800-456-3333) and EMBARK (800-362-2724). We will print more specific information as we receive it.

### **How to talk about HP 95LX related products: RAM Cards and PC Card Readers**

Quite frankly, I am not sure how to talk about third party products. For example, I have been using the **PAMCO Card Drive** attached to my **HP Vectra PC** to read files from my **ACE RAM Card**. I simply connect the PAMCO drive into a parallel port of my desktop and can read the RAM card I use in my 95LX the same way I read a disk in any other disk drive. The PAMCO drive retails for \$169 and can be bought for less at such mail order companies as EduCALC.

I am satisfied with both the

PAMCO drive and the ACE card and both companies have a good reputation among users. (I do wish the PAMCO drive had a parallel port so I could use only one PC parallel port for both my printer and the drive.)

However, when I share this with you, please understand, I am making no comparative statement about the competition. I have not tried other manufacturers' RAM cards (except the HP 128K card which is too small for my needs), or any of the other PC card readers.

In general, I recommend RAM cards and PC card readers. PC card readers are a great, painless way to transfer files back and forth between a PC and the HP 95LX. RAM cards allow 95LX users to store more useful programs and data when using their HP 95LX. Expect to see further discussion of PC card readers and different kinds of PC cards in future issues of *The HP Palmtop Paper*.

Recently, I received an ACE double card. Unfortunately, the PAMCO drive does not read the ACE double card properly. Both PAMCO and ACE are reportedly working on a solution. The ACE double card uses a technology developed by Stacker to compress files. The process is invisible to the user and results in approximately doubling the amount of files that can be stored on an ACE double card. So a 2MB card with Stacker preformatted on it can hold roughly 4MB of information.

Apparently, Stacker cannot be used on the C drive, but can be used on other RAM manufacturers' cards. However, the installation of Stacker is not straightforward and we will discuss it in a future issue. DIET, discussed on page 17 of the Fall 1991 issue, is an excellent alternative to the Stacker technology for the C or A drives.

### **Subscribers Disk, Palmtop Paper ON DISK, and Printed Edition**

We include a free Subscribers Disk with the subscription to the printed edition of *The HP Palmtop Paper*. We do to get some of the many useful and fun HP 95LX programs

out to as many 95LX customers as possible. As soon as we began writing *The HP Palmtop Paper*, we realized it would be impossible to include all the useful, noncommercial software on one disk.

One way to obtain most of the freeware and shareware mentioned in this publication is to download them from CompuServe. As you can tell from past issues, I am a big fan of the HPSYS 95LX CompuServe forum. 95LX users are especially fortunate because SYSOP Ted Dickens conducts the 95LX forum in a way that encourages high-quality participation from its contributors. Even so, we recognized many users might not have the time, patience, or knowledge to download files, so we developed *The HP Palmtop Paper ON DISK*.

*The HP Palmtop Paper ON DISK* performs three functions. First, it puts the entire contents of *The HP Palmtop Paper* in ASCII format. That way you can read one or more copies of *The HP Palmtop Paper* into your word processor where you can search for the information you want to find, rather than having to leaf through the many pages of all past issues. Secondly, we give our advertisers an opportunity to elaborate on their products, to give you more information so you can make a more informed choice.

Finally, we include all the shareware and freeware mentioned in the issue that we can legally put on the disk. Since our policy is to include only free software on our annual Subscribers Disks, *The HP Palmtop Paper ON DISK* gives shareware authors a means to get their product into customers' hands.

Shareware authors are typically programmers who have put a lot of effort into developing software, often as a side venture. They are not interested in the expense or effort involved in marketing their product commercially. They operate on an honor system. If you like and use their products, then they require you send them a very reasonable fee — usually between \$5 and \$45. It is a great method of offering often superior products to the mar-

## Product Contact Information

### ACTI

Contact manager. For more information see review, page 5 or advertisement page 33.

### EMBARK

Paging service available in the Summer of 1992. Basic service retails for approximately \$395.00. CONTACT: Brad Davis, Strategic Marketing Manager, EMBARC/Motorola, 1500 N.W. 22nd Street, Boynton Beach, FL 33426, USA; 800-3662-2724 or 407-364-2000; Fax: 407-364-3683.

### MacLink Plus for the 95LX

Retails for \$99. CONTACT: DataViz Inc., 35 Corporate Drive, Trumbull, CT 06611, USA; Phone: 800-733-0030 or 203-268-0030; Fax: 203-268-4345.

### Mobidem Wireless Receiver

Retails for \$1,795. CONTACT: Ericsson GE Mobile Communications, 15 E. Midland Ave, Paramus, NJ 07652, USA; Phone: 201-265-6000; Fax: 201-265-9115.

### Money Manager

Available now. Includes both a PC and 95LX version. Retails for \$59.95 (128K RAM card version retails for \$199.95). CONTACT: Auto-byte Corp., Timex Building, Route 11, Moores, NY 12958, USA; Phone: 800-465-4925 or 514-634-7741.

### Motorola NewsStream Receiver

Available in the Summer of 1992. CONTACT: Local HP Dealer, SkyTel, or EMBARK.

### PAMCO Card Drive

Retails for \$169.95. CONTACT: PAMCO Electronics Inc., 377 Carowinds Blvd., Fort Mill, SC 29715, USA; Phone: 800-255-6265 or 803-548-6740.

### Pocket Sales Force (PSF)

Contact manager. For more information see review page 8 or advertisement page 26.

### SkyTel

Paging service expected launch date for SkyTel is June 15. CONTACT: J.R. West, Skytel National Sales Center, 255 E. Pearl St, Jackson MS 39201, USA; Phone: 800-456-3333 or 601 354 8686; Fax: 601 354 9036.

ketplace at a most reasonable price. If you purchase *The HP Palmtop Paper ON DISK* and regularly use a shareware program, we ask that you honor the author's request for his fee.

### **HP 95LX Palmtop Conference: Interested? Ideas?**

I have had this idea ever since I attended a technical HP 95LX / HP 48 Conference in Corvallis, Oregon last year. Why not have a user-oriented HP Palmtop-only conference? Why not have it in Corvallis where the HP Palmtop is designed, marketed and manufactured?

At such a show, vendors who create products for the 95LX will have a chance to demonstrate their wares. Talks could be given on how people are using the 95LX; on tips, tricks, and techniques; and on technical issues that concern developers and programmers.

If it were in Corvallis, we would probably get a strong participation from the HP marketing, technical support, and engineering staff. At the original conference I attended, HP opened its doors and gave us a tour of the HP 95LX manufacturing

assembly lines and showed us its museum of calculator products.

Oregon itself is a great vacation place for the family. The ocean is close, and within a few hours drive are some of the most beautiful forests and waterfalls. If we held the conference in late summer, people could use it as a stepping stone to take off a few days.

What do you think? I am thinking August 1993. However, if there is overwhelming enthusiasm, maybe we could shoot for a dry run, Fall 1992.

### ***The HP Palmtop Paper – Too technical, not technical enough, or just right?***

So far the feedback on *The HP Palmtop Paper* has been very favorable, and we appreciate that. What I would like to know is how you perceive *The HP Palmtop Paper*? Do you see it as too technical for you? Or do you see it as not challenging enough? Is there a proper mix? The real question is: are we serving your 95LX needs? Finally, are there other kinds of articles you would like to see?

## **COLUMN: Guest Columnist**

# **Using The HP 95LX As An Electronic Day Planner**

***The 95LX's built-in APPT and PHONE applications can create to-do lists, remind you of appointments, and keep a well-organized phone book. Can you replace your day planner with an HP 95LX, or does it make more sense to use both?***

*By Marty Mankins*

Ever wonder what life was like before we had day planners? It's hard to remember now that we have become dependent on one central item to keep our schedules, task lists and phone numbers.

We would justifiably resist suggestions that we get rid of day planners, because they have changed our lives for the better. But what if we could use them alongside our electronic organizer, or replace them completely with the HP 95LX? This article outlines some key points on that subject. The 95LX, with its suite of PIM (Personal Information Management) built-in programs, is the perfect electronic day planner.

### ***Paper vs. Electronic: A First Glance Comparison***

Look at both formats, side by side. At first glance it doesn't appear that one format could replace, or be used

alongside the other very easily. Upon closer examination you begin to see the advantages and disadvantages of each format, as well as possibilities on how they might work together.

First of all, the HP 95LX has a size advantage. It's almost three times smaller than most desktop day planners. The 95LX can also remind you of appointments with its alarm functions, and backup files to another computer, providing security in case of data loss or theft. If you've ever lost a day planner, this advantage becomes very attractive.

The day planner has its advantages. If you need to copy a phone number or address for someone else, it's very easy to tear out a piece of paper and write on it. Also, day planners have storage for pens, paper clips, credit cards and other handy items.

It's tough to compare all the characteristics of the two formats

because the way people use their day planners and 95LXs differs widely. It's even tougher to get people to change the way they do things unless the benefits are great (and the effort involved not so great). With that said, let's take a look how we might use the 95LX as an electronic day planner.

### ***To-Do Lists: Managing Tasks You Want to Accomplish***

To-do lists have always been around. We all make a grocery list, or a list of items needed to complete a project. Archaeologists have even found 4,000-year-old to-do lists inside the Pyramids.

There's a great to-do function built into the 95LX's Appointment Book. It offers a one-line description of the item, a date when the item was entered, a carry forward option (for those items that you never seem to finish) and a priority assignment. You can even enter a 440-character note describing each task. It's very simple to use this feature, and there are ways to "jazz it up" and make the 95LX's To-do list more useful than a day planner.

### ***Creating an APPT To-Do List***

 Let's start out by creating a task. Turn on the HP 95LX and press **APPT**. The last appointment file you used will automatically be loaded. Press **F10** (To-do) to move to the To-do list. Press

**F8** (Insert) to enter an item. For this example, let's call this task, "Load programs onto 2MB card". After typing in the task, press **F10** (Done) again to save the information and list the item along with the rest of your to-do items.

Say you want to list the programs you need to install. Press **F6** (Note). This will create a note (maximum of one screen) that is attached to the to-do item presently highlighted. Type in the names of the programs you need to install. If you run out of space, you can list the rest of the programs in a MEMO file and note the location and name of the MEMO file at the end of the to-do note. So, for example, the message "List of programs in file: C:\\_DAT\SWLIST.TXT" indicates that the rest of the note is found in the \_DAT directory, in a file named SWLIST.TXT. When you need to refer to that list of programs, you could press **MEMO** and then retrieve SWLIST.TXT. You could set up a User Defined Function Key to automatically take you to MEMO, or even to SWLIST.TXT. (Make sure you save MEMO or APPT files before close those applications, or you'll lose changes you made to them.)

### Setting Alarms: Task Reminder Option

A day planner never reminds you about an important meeting. The 95LX will! Say you need to complete this task before 4 p.m. (because your automatic tape backup starts at 5 p.m.). Go back to the To-do list menu, cursor to the item we entered and press **F2**. This copies the to-do item and any note attached to the clipboard. Press **F10** to go back to the Daily menu. Next, cursor to 3:00 p.m. and press **F4**. This will paste the copied to-do item from the clipboard to the appointment book, creating a scheduled appointment at 3:00 p.m. Press **ENTER** if you want to change appointment details.

One detail you can change is to set an alarm for the appointment. Cursor down 4 times so that "Alarm: disable" is selected. Press **< SPACE >** to "enable" the alarm.

Leave the Leadtime set to 05 (alarm will ring 5 minutes before

the appointment; this can be adjusted from 0 to 30 minutes). Press **F10** (Done) to save your changes. Make sure that you have alarms enabled under the Settings menu. Otherwise, the alarm will go off, but you won't hear it. (From APPT press **MENU** Settings Alarm Enable to make sure the alarms are enabled. If the alarm is going off, but hard to hear, enter SET UP and press System Volume and then press **>** a couple of times to adjust the volume to High. Many users say they can't here the beeps any other way.)

The alarm should now sound and blink at 2:55 p.m. to remind you to complete your task. When you have finished your task, make sure to mark it as done by cursoring to the task in the To-do list and pressing **< SPACE >**. If you don't, APPT will automatically move it to the next day, same time, and the alarm will go off again. You could also press **F3** (while in Todo) to Cut the item from the To-do list, but have it remain on the main Day view of APPT. This eliminates the duplication, but leaves it as a reminder of what you accomplished.

### H.P. PHONE Home!

 Another major function of a day planner is keeping track of phone numbers, hopefully in alphabetical order. This is slightly difficult on paper, unless you've planned ahead and left room for new numbers. Eventually you run out of room and spend time erasing or scratching out old numbers and writing in new ones. The HP 95LX's built-in Phone Book is very flexible, automatically alphabetizing PHONE lists, and allowing you to easily find and change someone's phone number.

### Using PHONE Features

Even with a filesize limit of approximately 45K per file, hundreds of phone numbers can be stored in a single 95LX Phone Book file (the file with the .PBK extension). When you want to find a phone number, you could spend a while cursoring through all the names, or you can

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speed up your search by using PHONE's Find or the Only functions. Find (**F7**) and Only (**F6**) are similar functions. Find locates the first occurrence of any word or character sequence you enter and goes to that entry. Press **F7** while in PHONE and type in a word (for example, "computer"). Press **ENTER** and PHONE goes to the top of your phone list and searches for the first occurrence of the word you entered. The word can be in the Name, Number, or Address fields of the Phone Book. Press **F7** again and you'll see that Find "remembers" the last word you searched for and automatically re-enters it as the word you'll search for. Also notice that at the bottom of the screen you have two choices: Prev (**F5**) or Next (**F7**). If you are in the middle of your Phone Book, you can continue your search forward (Next) or backwards (Prev).

Only finds all of the entries with the word (or character sequence)

you type in and lists only those entries. **Only** temporarily excludes other names and phone numbers, making it easy to look through the list. To choose **Only**, press **F6** and type in the word, phrase, or character sequence you're looking for; for instance, the word "computer." Any entry that had "computer" in it will be listed. Press **F6** **ENTER**, to get your complete phone list back.

With the time you save, you may never look up another phone number without using **Find & Only**.

Another way to find a phone number or address quickly is to go to **PHONE** and start typing in the name of the person you're looking for. **PHONE** automatically searches the **Name** field for the first occurrence of the name, word, or character sequence you entered.

(Please see page 36 in this issue for more information on using **PHONE**.)

### **Merging Electronic & Paper**

Using the 95LX alongside a paper-based day planner is particularly attractive for those who don't quite

trust an electronic format, but find **PHONE**'s features and **APPT**'s alarm capabilities useful. Carrying both can be a chore, but fortunately there is a solution.

Franklin Institute of Salt Lake City, Utah, famous for its Franklin Planners, is marketing new binders that hold both their planner fillers, and your HP 95LX. The binder is practical and has plenty of room, giving you the ability to carry everything in one package. (Contact Franklin Institute, Phone: (800) 654-1776 or (801) 977-1492; Fax: (801) 977-1772).

There are other options. Many of us use a camera bag. Now don't laugh, it's very practical. In fact, some of the major camera bag makers (Tamrac, Tundra, etc.) are introducing bags specifically designed to hold computer equipment. Some are perfect for holding palmtops, pocket modems and a Sr. or Jr. Day-Timer. These cases are very easy to get things in and out of, and outlast more expensive leather goods. Check out your local camera shop or sporting goods dealer.

### **Conclusion**

Although I have shown only two examples, I hope I have opened up some possibility for using both electronic and paper formats. The 95LX as an organizer has advantages: You can have an alarm remind you of an appointment or task; you can keep an automatically alphabetized phone list and find phone numbers fast; and you've got everything in one small, powerful, portable unit. The addition of Lotus 1-2-3 and the ability to run DOS programs makes the 95LX hard to pass up. It certainly does more than your average day planner.

*[Marty Mankins is the owner of Perfection Applied, publisher of Take It With You, The Newsletter for Palmtop Computing. He is also a SYSOP on both the APORTFOLIO and PALMTOP forums on CompuServe. He can be reached at [75300, 1770]. This article (c) 1992, Perfection Applied, 454 West 1010 North, Orem, UT 84057. Distributed to Thaddeus Computing Inc. for inclusion in The HP Palmtop Paper.]*

## **COLUMN: Looking Glass**

# **Through The Looking Glass**

*Ed discusses two Solver functions from HP CALC: L(x,alg) and G(x). He also mentions three DOS programs not found on the 95LX and some software from a new 95LX user.*

*By Ed Keefe*

### **Introductions**

This issue's Through The Looking Glass column is devoted to a series of introductions.

The first is to **LET** and **GET**, a couple of powerful Solver functions with some very interesting characteristics.

The second introduction is to Dave Goodman, a relative newcomer to the ranks of programmers of the

HP 95LX. Dave has written some intriguing programs to share with 95LX users.

Those new to MS-DOS may need introduction to **FIND**, **SORT**, and **EDLIN**, some DOS programs that can help make life a little easier. There are ways to acquire these programs for your 95LX. The versions I recommend are small and run on the 95LX with no modification needed.

### **Two More Solver Functions**

 On page 34 of the March/April issue I used Solver to develop a fairly complete

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solution to a break-even analysis problem. While working on that solution, I became enthusiastic over the capabilities of Solver, especially over Solver's ability to take an equation and, almost instantly, turn it into a menu-driven application.

However, my enthusiasm waned when I tried to change the order of the items in the menu list. Solver has a mind of its own when it enters the variables of an equation into the variable menu list. To dampen my enthusiasm further, I realized that many problems are such that there were actually two or more equations to contend with.

Fortunately, Solver comes with the L(x,alg) and G(x) functions. They are briefly described in "Solver Functions" on page 29-8 of *The HP 95LX Users' Guide*. They are not mentioned anywhere else, and I can see why not. It would take a small book to explain what these functions can do.

As a matter of fact, there is a small book that does a good job of showing how to use these two functions. The book is *Technical Applications: Step-by-Step Solutions for Your HP-27S or HP-19B Calculator*, Hewlett-Packard, 1987, Mfg #00027-90045. I got my copy from EduCALC for about \$10 (contact EduCALC at 800-677-7001, or 714-582-2637; Fax: 714-582-1445).

### L(X,ALG)

L(x,alg) evaluates an algebraic expression and stores it in a variable. So, for example, L(X, Y^2) means "let the solution to Y^2 be stored in the variable X" (^ means "to the power of," so Y^2=Y^2). The fact that L(x,alg) stores the solution in a variable allows you to pass the result on. To see how L(x,alg) works, try the following:

Press **[HP CALC]** **[MENU]** **S** **[F4]** and you're ready to start entering equations into the Solver Editor. Type in Z=L(X, Y^2). Press **[ENTER]** and **[F9]**. You should see Z and Y in the variable menu. X doesn't show because it's not part of the equation, it's just the variable that the solution to the

equation is going to be stored in.

To "coax" X into the variable list, press **[ESC]** **[F2]** to edit the equation and change it to Z=L(X, Y^2) + 0\*X. Press **[ENTER]** **[F9]**. Now you should see X appear in the list.

Note that the equation didn't change by adding 0\*X (0\*X=0). All we did was put X in the equation somewhere other than the first argument in the Let( ) function.

In other words, if we use a variable only as the first argument in the L(.) function, we won't see it in the Solve Calc variable menu. If we use it elsewhere in the equation, the variable will appear in the menu.

To see L(.) in action, press **[V]** a couple of times to move the highlight bar to the Y variable (Y = 0.00). Key in 4 and press **[ENTER]**. Now move the highlight bar to Z and press **[< SPACE >]**. The L(.) function evaluates Y^2 and assigns the solution (16.00) to both X and Z.

### G(X)

G(X) stands for "Get X" and returns the contents of the variable X.

Return to the Solver Editor screen and modify the equation to read Z=L(X, Y^2) + G(X). Then press **[ENTER]** **[F9]**. Once again, X has disappeared from the list of variables, because it is the first argument of L(.) and it is the argument of G(). (In the above formula, if you let Y=4 and solve for Z by pressing **[< SPACE >]** when Z is highlighted, you find that Z=32. You add 4^2, which is 16, to X, which has been assigned the value of 16 by the L(.) function of the equation - 16+16=32.)

### A More Detailed Example

One of the reasons for using the L(.) and G(.) functions is to hide variables from the users of your equations. A more practical use of the L(.) function is to solve for more than one variable at a time. It also gives you a way to impose your own order on the items listed in the variable menu. Probably the most important function of L(.) is to save keystrokes by re-entering complex expressions. To see how you can

### Intermediate Variables

When the variable is hidden, it is called an "intermediate variable". To use an analogy, an intermediate, hidden variable is something like putting some data in a 1-2-3 cell and then hiding the column so the casual user won't mess with it. (And, for those who are into C++ programming, this is something like putting a variable in a Class. The data is hidden and can only be changed by a member function. That's pretty sophisticated for a "calculator language.")

The complete rule for using L(.) and G(.) is: To make a variable disappear from a menu list, use it only as the first argument in the L(.) function and only use it outside of L(.) when it is "wrapped up" in G(.). Any other use of the variable in a Solver equation will make it appear in the menu list. This includes using the variable on the right side of the "=", in L(.).

impose order in the variable menu and save keystrokes, consider the formula listed below.

The formula comes from the pages of the *HP-41C Users' Library Solutions: Business Stat/Marketing/Sales*. It describes the relationship between manufacturing costs of an item and the knowledge/experience you have gained about the manufacturing of the item. I'll paraphrase the problem.

Typically, production costs drop as more of an item is produced. This is because experience is gained and the production process becomes more efficient. The relationship between production cost and efficiency gained through experience can be given as:

$$\text{Cost of Nth Item} = \text{Cost of 1st} \times \text{Units}^{\log \text{LrnF} / \log 2}$$

"Units" is the number of the items produced and "LrnF" is the "learning factor", a measure of experience gained in the production process.

Similarly, the average cost of producing any number of items is:

$$\text{Avg Cost} = \frac{\text{Cost of 1st}}{\text{Last-First}} \times \frac{\text{Last}^{(B+1)} - \text{First}^{(B+1)}}{B+1}$$

Where B = Log LrnF / Log 2 and "Last and First" refer to the num-

bers of the items. This formula could find the average cost of producing items #500 through #3000.

There are certain limitations to this formula. The average is a first approximation. Small values of "Last-First" may give inaccurate results.

To get these formulas to come to life, enter Solver and use  $\nabla$  to move the highlight bar to a blank line at the bottom of your Solve Catalog. Press  $F_2$  to get to a blank Solver editor screen and then key in the first equation.

```
Cost_Nth=
Cost_1st*
Units^
log(LrnF)/log(2)
```

There's nothing in the book that says you have to write the formula all on one line. Press a Tab, not  $\text{ENTER}$ , after each line above. When you've finished with the last line, press  $\text{ESC}$  or  $\text{ENTER}$  to end the editing session. Then press  $F_9$  and you should see the items listed as

```
Cost_Nth =
Cost_1st =
Units =
LrnF =
```

Now suppose I wanted Cost\_1st to come before Cost\_Nth. I would press  $\text{ESC}$   $F_2$  and add a line to the beginning of the equation.

```
0*Cost_1st+
Cost_Nth=
Cost_1st*
Units^
log(LrnF)/log(2)
```

This subterfuge of adding  $0*Cost\_1st$  doesn't change the nature of the equation ( $0*Cost\_1st=0$ ). However, it does change the order of items in the variable menu.

Before pressing  $\text{ENTER}$ , modify the last line of the above equation so that it reads  $L(B, \log(LrnF)/\log(2))$ .

This use of L(.) does not change the equation. It merely gives to the variable "B" the result of " $\log(LrnF)/\log(2)$ ." This will save us some keystrokes later.

Now press  $\text{ENTER}$   $F_9$  (Note: "B" does not appear in the list). Press

$\nabla$  to get a blank editing line. Start typing Avg\_Cost and the editing screen appears automatically. Key in the the equation below.

```
Avg_Cost=
Cost_1st/
(Last-First)*
(Last^(G(B)+1)-
First^(G(B)+1))/
(G(B)+1)
```

Since we don't want "B" to appear in the list, we have to wrap it up in the G() function. *Note how our earlier use of L(B, ...) saved us a lot of keystrokes in this equation. Each time we want  $\log(LrnF)/\log(2)$ , all we enter is B.*

We now have two equations. If we want only one equation that solves for every variable we can rewrite the first equation as follows. Insert  $+0*First+0*Last$  at the tail end of the first equation to force Solver to put these variables in the list where you want them. Then insert the second equation, but change the first phrase in the second equation from Avg\_Cost= to  $+0*L(Avg\_Cost,$ . Finally, add the phrase  $+0*Avg\_Cost$  at the end to make this variable appear in the list. The equation will look like this in the Solve Editor (this equation in LRNCRV.EQN  $\text{F}_9$ ):

```
0*Cost_1st+
Cost_Nth=
Cost_1st*
Units^
L(B,log(LrnF)/log(2))
+0*First+ 0*Last
+0*L(Avg_Cost,
Cost_1st/
(Last-First)*
(Last^(G(B)+1)-
First^(G(B)+1))/
(G(B)+1)
+0*Avg_Cost)
```

To make the modifications, I recommend using MEMO. First save the File as LRNCRV.EQN (press  $\text{MENU}$  File Save, type in LRNCRV and press  $\text{ENTER}$ ). Then use MEMO to edit the LRNCRV.EQN file. It's far

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easier to edit an EQN file with a text editor than to try to do the same thing in the Solver Editor. Finally, save the file and quit MEMO.

*[Editor's note: The case in the G function seems important. When I entered Ed's equation using G(b) rather than G(B), it did not perform properly - Hal.]*

Return to Solver and press  $\text{MENU}$  File Retrieve to activate the revised file. Then press  $F_9$  and see the following:

```
Cost_1st =
Cost_Nth =
Units =
LrnF =
First =
Last =
Avg_Cost =
```

The numbers on the right side of the equal signs will be meaningless.

To solve an example problem, set the following:

```
Cost_1st = 975.00
Cost_Nth = 643.00
Units = 100.00,
First = 1.00
Last = 100
```

*Both First and Last cannot = 0.*

The above figures indicate that the cost of producing the first item was

\$975, the cost of the 100th unit was \$643, and the number of "units" was 100. Highlight LrnF = and press < SPACE >. You should see 0.94. (This assumes that you have pressed < MENU > Options Format Fix 2 from within HP CALC.)

Now find the average cost of producing items 1 through 10,000. Set First=1.00 and Last=10,000.00. DON'T try to solve for Avg\_Cost. (It won't work.) Highlight LrnF again and press < SPACE >. Note that Avg\_Cost magically reveals the amount of 466.13. L(,) solved for two variables at the same time.

Finally, to find the cost of the 10,000th item, set Units=10,000.00. Then highlight Cost\_Nth and press < SPACE >. The answer is 424.05.

There's more that the L(,) and G() functions can do, but this is enough for now.

### A Newcomer to the HP 95LX

Dave Goodman may have just got his 95LX as a Christmas present, but he is no newcomer to computers. He's been programming them since 1974.

Dave currently works as a project manager for a commercial software firm. In his spare time he produces sterling software for the HP 95LX. If you haven't seen any of his work, it would pay to download some of it from the HPSYS forum on CompuServe or to order *The HP Palmtop Paper ON DISK*. I particularly like Dave's rendition of ANSI.SYS, which he calls WINSI.SYS. I also make good use of his Big-Shell program to put huge letters on the screen of my 95LX. The 20 X 8 screen may not hold very much, but it's just right for replacing the 3 X 5 cards that I used to use for presentation notes.

One other program is a bit of whimsy in which a small kitten, Neko, chases a ball around the screen of the 95LX. However, his best graphical program, for the HP 95LX, is HPL.COM. It's an ICON driven menu-system for DOS applications. The icons are so real that I unconsciously reached for a mouse to click on them.

All in all, Dave Goodman has

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released more than a dozen programs for the HP 95LX in the past couple of months. I count him as a great addition to the miniature programmer's club. In my book, he claims the honor of being the premier graphics programmer on this small machine.

I encourage you to take a look at some of Dave's programs. If you feel beneficent, send the small registration fee. Or, if you feel impoverished, send a card or note and let Dave know what you think of his work. Programmers dote on flattery. (See "Goodies I" description in "Third Party Products," page 45 for an inexpensive way for getting the pest of his work.) More on David's programs and programming in future issues.

### Three MS-DOS Programs

Many HP 95LX users have expressed a sense of loss at not having such DOS utility programs as SORT, FIND and EDLIN on their machine.

I noticed this lack almost immediately. I may well be the only person who still uses EDLIN, the clunky, old, line editor.

To rectify this omission, I borrowed the SORT, FIND, and EDLIN programs from my trusty HP Portable Plus DOS 2.11. The programs worked immediately. I didn't need to patch them or to make any other changes. Old versions of MS-DOS should have these smaller-sized programs.

Until next time: Happy Porting.

*[Ed Keefe is an author, programmer, computer science instructor, and long-time contributor to support publications for Hewlett-Packard computers. He is the president of the FastAid Company, 314 S.W. Logan, Ankeny, IA 50021. Ed's CompuServe ID# is [73277-1064].]*

 On The HP Palmtop Paper on Disk, May/June 92.

## The Savvy User

*Tom tells you how you can make use of EXPENSE.WK1, one of four Lotus worksheets built into ROM on the U.S. 95LX. He briefly reviews other programs, including: One that makes Alt and Ctrl "sticky" (press once instead of holding down), a program that puts a clock with huge block letters on the 95LX, and a program that lets the 95LX reproduce the tones of a touchtone phone, letting the 95LX dial a number.*

By Thomas R. Page

One of the most useful programs for your 95LX on CompuServe's HPSYS forum is STAYDNHP.COM (download STDNHP.ZIP ) written by Jeff Prosis of *PC Magazine*. This little program makes **ALT** and **CTRL** "sticky" like  (i.e. press it and release instead of holding down). It is far easier to press two keys in succession (e.g. **ALT** and then **T**) than two little keys at the same time. (It would be nice if the program could be modified so that it displayed symbols in the lower right corner of the screen to indicate that one of these keys had been pressed as is done when  is pressed.)

Less useful, but entertaining, is HPNEKO.COM (download HPNEKO.ZIP ). NEKO is one of a number of programs including an English-Spanish translator (download UTIL1.ZIP) written for the 95LX by David K. Goodman. Rolling a ball around for a cute little kitten to chase provides needed diversion in long boring meetings, without requiring the intense concentration demanded by Space Invaders (AG.ZIP ) or Tetris (HPTRIX.ZIP ). SMClock (SMCLOCK.ZIP ) can be not-too-subtly used to hint that a meeting is lasting too long. Pop it up and casually position it so the meeting chairman can see the time in HUGE BLOCK LETTERS!

Ivo Steklac must have been reading my mind. Last week I was thinking, "Why doesn't someone write a program to dial a touchtone telephone," and DIALTO.ZIP  appears on CompuServe. Version 1.1 needs a little tuning, but the program is intuitive and makes

appropriate use of the 95LX interface standard.

The program needs to be improved so that it can add and delete area codes quickly and easily. In the world of portable computers, dialing prefixes, area codes, charge codes, and modem protocols change from location to location. I envision a command telling the 95LX its location, and thus provide location-specific configuration information to all programs.

### How About Another Program Idea

Can the 95LX's infrared port be used to command a remote controlled television? I have long thought it made sense to use a computer to control an entertainment center.

### 1-2-3 and the 95LX

 Don't you just hate those dumb 1-2-3 worksheets that can't be removed from the root directory of the C drive. Perhaps we shouldn't let them upset us. All they are doing is filling up some ROM that could not otherwise be used. I'm sure that most any of us could have found a better way to use the ROM, but we were not selected for the design team.

By the way, I just read about the 1MB 95LX. How about letting me be on the design team for the 2MB 95LX. Let me have one megabyte of that ROM to install personal applications and owner identification. I'd like to be able to send HP a disk of custom data and choose from a list of popularly available applications. I'd gladly sacrifice MEMO and COMM. These are the two weakest

programs on the blue keys and really do need to be replaced.

I'm sorry, but I just had to "chase that rabbit." Now we better get back to business.

This is not an easy column, but if you will work through it with me I think you will learn something about 1-2-3. The best way to learn to build spreadsheets is to examine an expert's spreadsheet.

### Expense Report

[Editors Note: EXPENSE.WK1  is one of four Lotus worksheets that come with the English language versions of the HP 95LX. International versions of the 95LX do not have enough ROM memory space to include all of these worksheets. We will include these four worksheets on the next HP Palmtop Paper ON DISK, for international users who may desire to use them. Those without EXPENSE.WK will still be able to follow this column — Rich.]

EXPENSE.WK1 is not a bad generic expense report form. It's probably not anything like the form your company uses, but let's load it and see what we can learn. Before you get too far along, get your *95LX User's Guide* out. You may need it to interpret code you find in this spreadsheet.

When the spreadsheet loads, it displays a short set of instructions indicating the spreadsheet has two macros: **ALT-P** for printing and a **ALT-A** which the instructions tell you to execute to begin. Press **ALT-A** and you'll find yourself in an area of the spreadsheet for inputting personal data. Enter sample data and press **ENTER**. Press **▼** to get to the other information fields and enter some sample information.) After you finish entering personal data, press **ENTER** again and the macro takes you to an area of the spreadsheet where you provide information about the expenses. After this data is entered, press **ENTER** and you will get instructions on how to enter expense

 On The HP Palmtop Paper on Disk: STDNHP.ZIP, HPNEKO.ZIP, DIALTO.ZIP, and EXPENSE.WK1 on the May/June 92 issue; SMCLOCK.ZIP on the Mar/Apr 92 issue; AG.ZIP & HPTRIX.ZIP on the Jan/Feb 92 issue.

items. Press **[ENTER]** and the cell pointer moves into the date column, to the first expense item line.

### **Making a Better Expense Report**

Perhaps, like me, you are disturbed by all that wasted empty space at the right of the screen. Makes you wonder if this spreadsheet was designed for the 95LX or if it's a garden variety. Moving the cursor right you will find a generous 46 character column for entering descriptions. Moving farther to the right you will find columns for entering specific types of expenses and at the far right a total column.

Let's do a little editing to get the spreadsheet better fitted to the 95LX's screen. Move the cell pointer back to column A and set this column to 8 characters wide (press **[MENU]** Worksheet Column Set-Width **8** **[ENTER]**). This will provide a column wide enough to capture the day and month but will, unfortunately, mess up some descriptions at the top and bottom of the expense report. We will deal with this later.

Now move the cell pointer to column B and set column width to 28 characters, which is probably enough to describe most expenses. It is more space than my company gives me on its expense report form. Column A and column B can now be displayed on the screen simultaneously. Move the cell pointer back to column A.

When I am exploring a strange spreadsheet the first thing I do is look for macros. 1-2-3's macro language is a powerful programming language that lets commands be coded and automatically executed as if they had been typed on the keyboard. It is a real time saver for repetitious exercises like printing or simply moving from one part of the spreadsheet to another. Macros are range names (\A, \B, ... \Z, \0). The macro named \0 executes automatically whenever the spreadsheet is loaded. Other macros are executed by holding down **[ALT]** and pressing the appropriate letter key.

To find the macros in EXPENSE.WK1 press **[F5]** (GOTO), then press **[F3]** (NAME) twice to display a list of range names. Use

**[V]** to scroll to the end of the list and you will see three macros: \A, \B, and \P. The instructions indicate \P is a printing routine. Place the pointer on \P and press **[ENTER]**. If you did this right the cell pointer should be at cell B64 and, oops — there is nothing there! Look at the upper left of the screen and you will see: **B64: (H) PR [W28]**. This tells us the cell pointer is located at cell B64. **[W28]** indicates the column is 28 characters wide, **PR** indicates the cell is protected and that the worksheets global protection is enabled. Try writing in the cell. You will not be able to. To disable the worksheets global protection, press **[MENU]** Worksheet Global Protection Disable) and watch what happens. The contents of the cell are now displayed at the top of the screen, but still not visible at the cell pointer. **(H)** indicates the cell is hidden. If you move the cell pointer left to column A, you will find another hidden cell. There are a number of hidden cells in this part of the spreadsheet. Let's make them visible by resetting to the default format. Press **[MENU]** Range Format Reset. Press **[V]** until the cell pointer is at cell A87. Press **[>]** until the cell pointer is at cell E87, and press **[ENTER]**. This will unhide a bunch of macro commands.

Since the spreadsheet is no longer protected, it is easy to overwrite these cells, but that's nothing to worry about. The original spreadsheet is permanently etched into ROM — just reload it and start over.

If you are going to modify and experiment with a spreadsheet, it must be unprotected. I don't know any serious spreadsheet user who gets a spreadsheet application developed to the point where it's perfect and needs no further tinkering.

I also have never seen a spreadsheet application that could be effectively used by someone with no knowledge of 1-2-3. And I most certainly have never seen any knowledgeable 1-2-3 user be satisfied with the logic in a spreadsheet developed by someone else. I know I can improve every spreadsheet on the 95LX.

Macro \P begins in cell B64. Ranges in 1-2-3 may be assigned more than one name. Cell B64 is

also assigned the name **PRINTRPT** as indicated in the adjacent cell in column A. If you scroll down this column, you will find the names of several more ranges beginning in column B. This is a very good technique for macro programming. Identifying the location of named ranges avoids confusion and makes locating key codes easier.

In addition to the previously mentioned slash (MENU) commands, macros can incorporate @ functions and 50 so-called "advanced macro commands." These commands are embraced by { } "French brackets". As you can see, this spreadsheet uses a number of these advanced macro commands. I'll let you look up the commands {*indicate*} and {*windows off*} yourself, but I want to explain {*menucall* \_}, since it is one of the most useful of the macro commands. It permits developing sliding bar menus almost indistinguishable from 1-2-3's to control macro execution. My spreadsheets always have an **[ALT]-M** macro that activates a menu to access other macros on the spreadsheet. It's much easier to remember **[ALT]-M** than a bunch of other ALT commands.

If the **[ALT]-P** macro on this spreadsheet is activated, it will display a menu of printer options. This menu begins at cell B73, which is named **SELPRINT**, and contains the first option. The next cell down explains the option and the cells below this contain macro code to implement the option. Other options are contained in adjacent cells to the right.

This spreadsheet uses an interesting technique to send setup strings to the printer. Depending on the options selected, setup strings are copied from a storage area to cells in column A at the beginning and end of the print range. The first string sets the printer to print the expense report and the second string resets the printer to default values. These strings can be found at cells B70 through C71. Take a look at how they are formatted. This technique is sort of mentioned at the top of page 2-22 of the *95LX User's Guide*, but it is not very well explained. I don't know if this technique is of much use to the 95LX,

but on other computers it may be the best way to send complicated LaserJet setup strings exceeding the length of setup strings permitted within the /Print command.

## Macro

### Programming Technique

In addition to using and identifying named ranges, the author of `_EXPENSE.WK1` uses another very good macro programming technique. His code is well organized in that each line generally performs a relatively discreet operation and each line of code is kept relatively short. However, he is not perfect in this area. It would be better if the lines of code had been made even shorter so each line would be completely visible on the screen. Cells B65 and B70 are examples of code that could be improved by displaying it on more than one line. Cell B70 is a very good example of another flaw in the author's techniques. It is difficult to tell where the slash command ends and the range name begins. One should be typed in upper case and the other in lower case (`/REsetstring` or `/REsetstring1`). It does not much matter which is which, as long as you're consistent. I prefer typing slash commands in upper case.

Remarks describing code are another good programming technique. Shorter lines of code make placing meaningful remarks in an adjacent cell easier. The down side of remarks is they make the spreadsheet larger. This can become serious on a computer as small as the 95LX.

Let's examine another part of the spreadsheet and see if we can find some interesting code. Press `F5` (GOTO) and when asked for an address, respond `setstring` followed by `ENTER`. Since the range, `SETSTRING`, is in cell A1, the cell pointer should be at cell A1 along with some of the descriptive information that should be visible just below it in cell A4-A8. If you entered data when you executed the `ALT-A` macro, this data should be displayed in column B. Move the cell pointer to cell B4 and note the formula, `@S(EMP_NAME)`, displayed in the control panel at the top of the screen. Press `F2` (EDIT) and the formula changes to `@S(R4..R4)`. If a formula

references a named range, the named range appears on the control panel when 1-2-3 is in READY mode. In EDIT mode the absolute address appears. Press `ENTER` to get out of EDIT mode. Note the use of the underscore in the range name. 1-2-3 will not accept spaces in range names. Substituting an underscore for a desired space is a common programming technique used when the application will not accept a space.

You may wonder why the `ALT-A` data entry macro entered the data in another part of the spreadsheet instead of in this area. Having the data entered in a remote part of the spreadsheet provides greater flexibility in data entry. For example, `Employee#, Dept, and Tel. Ext` could be entered either as labels or values. Cell B5, B6, and B8 contain formulas to insure these items are displayed correctly no matter how they are entered. This is a good technique.

The author's code may not be entirely bulletproof. If a value is entered in the name input cell, the `@S` function will return a blank. It might be a good idea to check for this condition or the failure to enter a name and return an error message if necessary. The formula could look something like this:

```
@IF(@S(EMP_NAME)="","ERROR",EMP_NAME)
```

This may be excessive error checking, but it provides an opportunity to show how the use the `@S` function to insure data is entered as a label. If you are interested in examining other 1-2-3 advanced techniques, inspect the formulas in cell I55...K56.

Let me quickly mention the other place messed up by changing the width of column A to 8 characters. Look at the signature line, A58...B58, and the approval line, A60...B60. This problem is easily fixed. Allow the descriptions to overlap two columns and replace the repeating labels, `\_`, with sufficient underscores to catch a signature. The problems in A5, A7, and A8 mentioned earlier can be solved by abbreviating or modifying the description. For example, replace `Location` with `City`. Another solution

that may be acceptable and could even be useful would be to replace column B with two or more narrower columns and adjust the descriptions as required.

Before ending the examination of `_EXPENSE.WK1` let me identify one small glitch that crept into this spreadsheet. Press `F5` (GOTO) and the press `F3` (NAME) twice. Move the cursor to the right column and down to `\B`. This range begins in cell A8192, an obviously "orphaned" (unused) range name. Orphaned range names are not an uncommon occurrence and are not seriously detrimental. Each one just wastes a little memory and adds unnecessary clutter.

`_EXPENSE.WK1` was fairly easy to explore because the author used range names and maintained generally tight control over the construction of the spreadsheet. Unfortunately all spreadsheets are not designed as well. This sometimes makes it difficult to determine the active range of a spreadsheet. One of the best ways to see what is in a spreadsheet is to print it from corner to corner by pressing the following string of commands: `↑ ← MENU Print Printer Clear All Align Range <period> ↑ → ↓ ← ENTER Go.`

It's much better to have a wide carriage printer rather than a LaserJet. It will save cutting and pasting horizontally. Printing the entire spreadsheet will not show formulas and hidden cells. The top of a spreadsheet is fairly level and easy enough to find, but the bottom edge of a spreadsheet can be very ragged and difficult to find.

*[Tom works for a natural gas pipeline company in Houston, Texas, and was one of the first to use PC's in the natural gas industry. He has been a regular contributor to support publications of Hewlett-Packard computers for many years. Tom's CompuServe ID# is [76011,3655].]*

## Programming Environments for the HP 95LX

*Ed briefly discusses Swift!Basic, and then discusses the five programming languages built into the 95LX. He expands on the MS-DOS batch command language with some powerful examples.*

By Ed Keefe

The HP 95LX is fast becoming a miniature programming environment in spite of its obvious limitations. Several programmers are using such standard languages as C, Pascal, Forth, and assembler on this small machine. Other programmers have found derived languages, such as BUILDER and POWERBAT to be useful for getting the 95LX to go beyond its built-in applications. The only standard language that is missing from this collection is BASIC. That niche is soon to be filled by SWIFT!BASIC.

SWIFT!BASIC has all the elements of a modern, structured, programming language. It features local and global variables, several different looping structures, and a complete graphics library. Beyond this, SWIFT!BASIC contains all the routines necessary to let you create System-Manager compliant applications without having to dig into the System Developer's Kit.

SWIFT!BASIC is the work of an Austrian software firm, Zemanek and Van Zaanen, OEG. As of this writing SWIFT!BASIC is still undergoing extensive testing before being released in the United States. The Users' Guide needs to be polished and the program needs further testing to make sure it will work on all versions of the HP 95LX. But, even in its earliest release, it appears to be a landmark piece of programming. It will set the pace for other language developers. Stay tuned for further news of this fine product. In the meantime, dig out your old BASIC code and see how it works on the 95LX.

*[Editor's note: Swift!Basic has been released and is being marketed in the U.S. by Sparcom (see advertisement, page 7, for contact infor-*

*mation). For more information on Swift!Basic see page 47 in the Mar/Apr 92 issue.]*

### Close to Home: Five Programming Languages Built Into the HP 95LX

You don't have to use an "imported" language to program your HP 95LX. Believe it or not, the 95LX contains no less than five built-in programming languages: HP CALC's Solver language; Lotus's macro language, DEBUG's arcane assembler, SETUP's CHAR language, and MS-DOS's batch command language.

Without a doubt, the Lotus macro language is the most popular programming language that has ever been developed. More applications have been written in this language than in any of the structured languages.

Most of the spreadsheet applications have been designed to solve unique problems and, hence, do not have wide appeal. We're still awaiting a collection of 1-2-3 macros tailored to the HP 95LX's small screen and ROM-based operation.

Trying to master assembler language programming with DEBUG is best left to experts, most of whom would probably reply "No thanks!"

CHAR macros (User Defined Function Keys) developed in SET UP are limited to the size of the editing buffer, 255 key strokes.

Solver's language is great for developing quick-and-dirty solutions to problems that can be solved with a business calculator. However, Solver is not a full-blown language. It doesn't have any obvious ways to create loops and branches. For those who want to see more of what Solver can do, look at this month's "Through the Looking Glass" column beginning on page 27.

Perhaps the least appreciated pro-

gramming language in the HP 95LX is MS-DOS's batch command language. The batch language commands are few and awkward to use. There are no easy ways to create loops, no obvious way to implement subroutines and only a few ways to implement branching. Yet creating elaborate batch files has become a favorite pastime of many programmers, including yours truly.

Let me share with you a couple of batch file techniques that I've learned over the past several years. Perhaps they will inspire you to come up with your own techniques.

### FOR IN() DO

The FOR IN() DO command of MS-DOS opens up a whole avenue of batch file enhancements.

For example, suppose you wanted to create a list of all the files in the hidden C:\\_SYS directory. Of course, you could enter DIR C:\\_SYS from the C:\ prompt. That would give you all the file names, the file extensions, the bytes, the date and time of creation. However, suppose you only wanted the file names and their extensions without all the extra information. You can use the built-in MEMO application to create a small batch file. Be sure to press **ENTER** after the second line.

```
echo off
for %%f in (*.*) do echo %%f
```

*[Note: Ed indicates below that \*.\* (or any characters inside the parentheses) must be separated from open and close parentheses by an empty space (e.g. ( \*.\* ), not (\*.\*)). The batch file above worked on my 512K 95LX with or without the empty spaces - Rich.]*

Save the file as FLIST.BAT and run it from FILER by highlighting FLIST.BAT and pressing **F4**.

If you create FLIST.BAT exactly as shown you'll be rewarded with a list of the file names in the C:\\_SYS directory. If, instead, you get "Syntax error," you may be experiencing what I believe to be a rare bug in some versions of the 95LX's operating system. In every other version of DOS I've worked with, the batch command "FOR %%M IN(\*.\*) DO ECHO %%M" works as the MS-DOS manual says it should. However, it

doesn't work on my HP 95LX. I lost a couple hours of sleep before I somehow surmised that if I put spaces on either side of "\*" inside IN( ), the FOR IN() DO command would work. Hopefully, the fact that someone is watching over DOS for you will let you sleep tonight.

What the FOR IN() DO command does is to convert the wild cards "\*" to the actual file names.

You can modify this FLIST.BAT file to make it create another batch file. For example, modify the second line in FLIST.BAT above like so:

```
for %%f in (*.*) do >> do.bat echo type %%f
```

[Again, make sure there are spaces between the parentheses and asterisks.]

Be sure to use the ">>" (append) operator rather than the DOS ">" (put to) operator.

Now run FLIST.BAT, and after a slight pause, check your file listing. You should find DO.BAT on your disk. The file will contain lines like "TYPE filename.ext." When you run DO.BAT, text files will successfully be listed on the screen. However, your DO.BAT file might contain commands like `type cost.wk1`, `type command.com` or `type clock.exm`. These commands will usually produce garbage on the screen when they are "Typed." The technique of using one batch file to create another can be useful in other situations.

Suppose you wanted to edit all the \*.TXT files in C:\\_DAT. You can modify FLIST.BAT so that it looks like the following:

```
echo off
if exist do.bat del do.bat
for %%f in (c:\_dat*.txt) do echo vde %%f >> do.bat
vde do.bat
pause
do
```

[Again, make sure there is an empty space between the parentheses and the phrase `c:\_dat*.txt`.]

Your FLIST.BAT file may differ somewhat. The above FLIST.BAT assumes that you have \*.TXT files in C:\\_DAT. It also assumes that you have VDE.EXE on your HP 95LX, and that VDE is somewhere on the DOS PATH. (VDE - Video Display Editor is an alternative text editor

described on page 27 of the Jan/Feb 92 issue and page 41 of the Fall 91 issue of *The HP Palmtop Paper*.)

The second line in FLIST.BAT erases any existing DO.BAT file. The append operator (">>") adds lines to an existing DO.BAT file. Deleting the DO.BAT file lets the ">>" operator start appending to an empty file. The fourth line in the batch file uses VDE to edit DO.BAT before running the newly created batch file. The PAUSE command lets you press **CTRL-C** to "Terminate batch job" before FLIST.BAT jumps to DO.BAT.

You can name FLIST.BAT anything you want. But wait: Why stop there? Consider the following batch file, MKBAT.BAT ("MKBAT" stands for Make Batch).

```
echo off
if (%1)==() goto error
if (%2)==() goto error
if (%3)==() goto error
if exist %3.Bat del %3.Bat
for %%f in (%2) do echo %1 %4 %%f >> %3.bat
rem add %5 thru %9 where needed
vde %3.Bat
pause
%3
:error
echo off
rem %1 %2
echo Usage: MKBAT DOS_Command FileMask
echo NewBatFilename [parameter_n]
rem %3 %4...%9
```

[Again, make sure there is an empty space between the parentheses and the phrase %2 on line 6.]

This elaborate file uses command line parameters. Command line parameters are represented inside MKBAT.BAT as %1, %2, etc.

Say, for example, you wanted to use the ATTR.COM program to turn on the Read-Only attribute for several files in the A:\BIN directory. You could use the command:

```
MKBAT attr A:\BIN*. * do +R
```

In this case, MKBAT will check to see that you have used the first three command line parameters. (The fourth through the ninth parameters are optional.) MKBAT will then create a DO.BAT file with several lines like this:

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Your Palmtop with  
@ Function Add-Ins for  
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*bond @analyst*  
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```
attr +R A:\BINfilename.ext
```

MKBAT calls VDE to let you examine the DO.BAT file and, if desired, delete lines. Upon exiting from VDE, you can press any key to jump to the DO.BAT program or press **CTRL-C** to terminate the batch file.

By now, you've either seen how the technique works and have started writing your own version of MKBAT.BAT, or you're shaking your head in wonderment. If you're among the latter, don't be too discouraged. You should have been here when I was agonizing over the MKBAT.BAT file. Maybe then you'd believe me when I say, "I understand how you feel." Do as I did. Take a nap. Put the article aside and come back to it after reading a good novel. If you want to see what the MKBAT.BAT file does, try keying it in, but omit the ECHO OFF command and insert PAUSE commands every other line. Then run MKBAT.BAT and watch what happens.

[Ed Keefe is an author, programmer, computer science instructor, and long-time contributor to support publications for HP computers. He is the president of the Fast-Aid Company, 314 S.W. Logan, Ankeny, IA 50021. Ed's CompuServe ID# is [73277-1064].]

# PHONE: A Powerful, Free-Form Database Under Your Nose

*More than a Phone Book, the 95LX's built-in database application can be used to organize and find all sorts of information. Here are some examples on how you might set up and use such a database.*

By Bil. Alvernaz

 If you've only been using the HP 95LX Phone Book to keep track of names, addresses, and phone numbers, then you're missing out on an effective way to manage bits of random information and data.

By being a little creative, and slightly altering your perspective, you can turn PHONE into a useful PIM (Personal Information Manager). While Part 3 of the *HP 95LX User's Guide* is devoted to Hewlett-Packard's concept of a personal information manager, in this case we're talking about a PIM you can use in a free-form manner.

Using PHONE as a PIM means you can enter ideas, items, notes, and random bits of data in any order you want. You can even include names, phone numbers, and addresses, too. Then with the Goto (F5) or FIND (F7) functions, you can use key words or codes (including numbers) to quickly find what you're looking for.

## It's Soooooo Easy To Do

Once you see what's involved (more to the point, what's NOT involved), you'll wonder why you didn't think of doing this sooner. Here's how it works:

**STEP #1:** The first step in unlocking all of this potential is to press **[MENU]** File New **[ENTER]** from PHONE. You'll see a blank Phone Book screen. We have set up a new, empty Phone Book file that we'll use as a free-form database. (If you have already been using another Phone Book, you may be prompted to save changes to that phone book before the 95LX will let you open a new one.)

**STEP #2:** Press the **[MENU]** File Save and give your new phone book a

name. For our example here we'll type in CUBS.PBK.

You're now ready to start using the Phone Book as a free-form database. For this example we're going to create a Phone Book database to keep track of the Chicago Cubs schedule of home and away baseball games. (The complete Cubs home and away schedule is found in CUBS.PBK , a Phone Book database developed by Tom Anderson of HP. The file is available on CompuServe's HPSYS forum.)

Data is entered the same way as in a normal Phone Book, but is no longer names and phone numbers. From the new Phone Book you just created press **[FB]** to Insert data. You are presented with the three standard Phone Book categories: Name, Number, and Address. We can't actually change the names of these categories in PHONE, but we're going to use them differently. Here's how:

Phone Book	Cubs Database
Name	Date/Time
Number	Location/Team
Address	Misc Info

When you see "Name" think "Date/time," "Number" think "Location/Team," and "Address" think "Misc Info." Date/Time is the scheduled date and starting time of the game. Location/Team indicates whether the game is Home or Away and the name of the opposing team. Misc Info can be used to store miscellaneous information about the game (phone number for tickets, address of the stadium, the starting pitcher, final score, etc.) The Date/Time and the Location/Team areas can each store up to 30 characters. The Misc Info area can hold up to 320 characters - 40 on each of the eight lines.

Below are some sample entries for this database:

Date/Time	05/31 1:20
Location/Team	H Dodgers
Misc Info	

Date/Time	06/01 7:05
Location/Team	H Padres
Misc Info	

Date/Time	06/02 1:20
Location/Team	H Padres
Misc Info	

Date/Time	06/03 1:20
Location/Team	H Padres
Misc Info	

Date/Time	06/04
Location/Team	Off Day
Misc Info	

You can keep a permanent record of almost any scheduled event, and use PHONE's features to organize the information.

You can, of course, use a Phone Book database for more than just baseball schedules. It is especially handy for any kind of checklist.

You can keep a travel checklist with you and look back over it at any time to make sure you didn't overlook something. You can even include a completion date next to checklist items so you know exactly when you finished the item. And once you've set up one travel checklist, you have a template for the next time you travel. Just copy the format and make the necessary modifications - your set up for the next trip! You always have your checklist with you to modify and improve as you discover other items need to be included.

A key point to keep in mind is that the Index view of Phone Book displays the first two data categories of the Phone Book database. In the above example those are the Date/Time and Location/Team categories.

Once you highlight an item and press **[ENTER]**, you then see the Card view, which gives you a complete look at all three categories of information. It is from Card view that you make changes to the entry. The top of page 38 shows an index view of the June/July Cubs schedule.

 On The HP Palmtop Paper on Disk, May/June 92.

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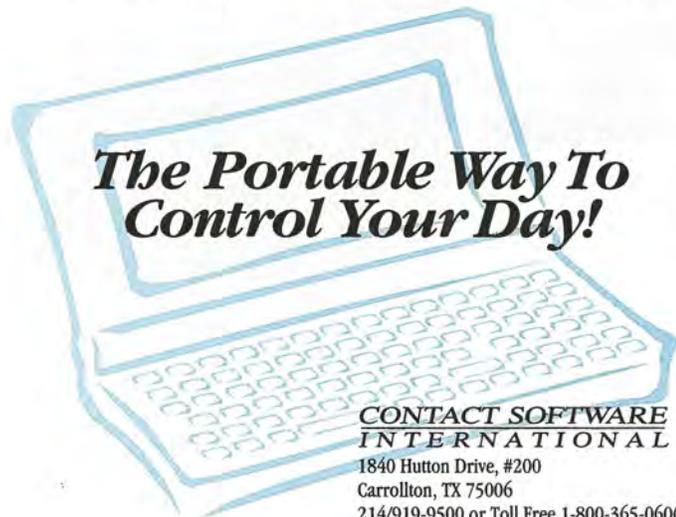
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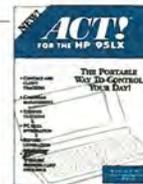
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06/28	1:20	H	Phillies		
06/29	1:20	H	Mets		
06/30	7:05	H	Mets		
07/01	1:20	H	Mets		
07/02		Off	Day		
07/03	6:40	H	Braves		
07/04	12:05	H	Braves		
07/05	1:10	H	Braves		
07/06	7:05	H	Reds		
M. M.	1:30	H	Reds		

Cubs June/July Schedule

**Ways of Finding the Info You're Looking for in PHONE**

You have to be able to get at information for it to be useful. Let's look more closely at how you can use Phone Book's ONLY, GOTO, and FIND functions to locate information in our new Phone Book database.

**ONLY (Press F6)** - One way to locate information is to create a subset of the database using Phone Book's ONLY function. Let's use the Cubs database for an example.

Suppose you now live in Chicago, but originally came from San Diego, California. You might want to see all the home games the Cubs have with the San Diego Padres. Use the ONLY function to create a list of these games. Press F6, type in H Padres and then press ENTER. You'll get a list like this:

Phone Book		05/18/92		8:58 am	
cubs.pbk		Only			
06/01	7:05	H	Padres		
06/02	1:20	H	Padres		
06/03	1:20	H	Padres		
09/04	2:30	H	Padres		
09/05	1:20	H	Padres		
09/06	1:20	H	Padres		

ONLY Search List

As another example, you could search for all games that begin between 6 p.m. and 7 p.m. (press F5 <SPACE> 6.)

Phone Book		05/18/92		9:00 am	
cubs.pbk		Only			
04/03	6:00	H	Brewers		
04/08	6:35	H	Phillies		
04/09	6:35	H	Phillies		
04/14	6:35	H	Pirates		
04/15	6:35	H	Pirates		
04/27	6:40	H	Braves		
04/28	6:40	H	Braves		
05/01	6:30	H	Reds		
06/18	6:30	H	Phillies		
06/19	6:30	H	Phillies		
06/20	6:30	H	Phillies		

ONLY Search List

**GOTO (Press F5)** - This function lets you alphabetically search Item, Phone Book's first category (in our example, the Date/Time category). When you're in the Index screen (the first screen in Phone Book where your data is displayed in the rows), you can search the first column of data with this procedure:

Press F5 and then type the letter(s) of the item you're looking for. Let's say we want a list of all Cubs games in May. Our database is set up with the month listed first. We press F5, type in 05, and press ENTER. The GOTO command takes us to the first Item (Date/Time) starting with "05." There are a number of games in May. We can continue typing in the date (e.g. 05/20) and the search will zero in on and highlight the exact match.

Goto:		05/20			
05/20	9:05	H	Goddards		
05/21	9:05	Off	Day		
05/22	3:05	H	Padres		
05/23	3:05	H	Padres		
05/24	3:05	H	Padres		
05/25	1:20	H	White Sox		
05/26	7:05	H	Giants		
05/27	1:20	H	Giants		
05/28	2:20	H	Giants		
05/29	2:20	H	Dodgers		
05/30	1:20	H	Dodgers		

GOTO Search Screen

You really don't have to press F5 to activate GOTO. From the Index screen start typing in the item you're looking for and PHONE automatically enters the GOTO mode.

Goto:		09/1			
09/10	7:05	H	Cardinals		
09/11	7:05	H	Cardinals		
09/12	7:05	H	Cardinals		
09/13	7:05	H	Cardinals		
09/14	7:05	H	Mets		
09/15	1:20	H	Mets		
09/16	1:20	H	Phillies		
09/17	1:20	H	Phillies		
09/18	2:20	H	Cardinals		
09/19	2:20	H	Cardinals		
09/20	1:20	H	Cardinals		

GOTO Search Screen

**FIND (Press F7)** - This function is much more flexible than GOTO, and is not restricted to any field or item listing. You can use FIND at any time in your Phone Book database; and that includes while working in the Card view. Here's how it works:

Press F7 to activate the FIND (or search) function. Then type in the numbers, letters, word or phrase you want to find. Let's say we want to find the first home game where

**Strategies for using PHONE as a database**

Tom Anderson of HP, the provider of the Cubs example, makes a number of suggestions on how to use the HP 95LX to store information.

Tom's basic strategy is to come up with unique and consistent ways of representing data so that he can use the ONLY (F5) command to search for subsets of that data. For example, when entering phone numbers into PHONE, Tom always surrounds the area code with parentheses and uses a dash to separate the prefix with the final four digits: (444) 555-6666. That way if he knows someone is in the (444) area code but can't remember the name, he can perform an ONLY search on (444), and not get the names of people who's Zip code or street address have 444 in it. Similarly, Tom can find a name at HP corporate offices by searching for 857-, the phone number prefix.

For company affiliations, to help guarantee uniqueness, Tom makes sure there is always a space in front of the Company name. That way he could search for NU (Northwestern University), by doing an ONLY search on <space> NU <space>. Because of the leading and ending spaces, Tom will not turn up any Sanunu's or Nusbaum's in the search.

Tom tries to put all numbers he calls in his PHONE book. That way if he ever forgets a name or a number he can usually find the right person by doing ONLY searches.

In the Cubs example all dates have a foreshlash between the month and day (06/25). All H's or A's indicating Home and Away games are followed by a space. To find June games an ONLY search on 6/ does the trick. Or you could ONLY search on 6/2 to find all games between 6/20 and 6/29. (Tom listed June 2 as 6/02, not as 6/2, to maintain consistency.) To search for all H home games, an ONLY search H <space> brings up the correct games.

The FIND (F7) command can be used within the entries found from the ONLY search. For example, after all the H games have been listed, you can do a FIND search on GI to find Giants home games. To clear an ONLY screen and go back to all entries, press <F6> <Enter>.

If Tom has seats for a game, He includes "Sec" followed by section number in the address section of an entry. To find all games he has tickets for he can do an ONLY search on "sec".

Finally, Tom also uses MEMO and its FIND command to organize information. For example, when he travels he uses a MEMO file containing frequent flier information, flight and rent-a-car data and even his American Express Traveler's checks numbers. When he uses a Traveler's check he deletes that check number.

the Cubs are going to play the Padres. We press **(F7)**, type in **H Padres** below the **FIND** prompt at the top of the screen, and press **(ENTER)**. **FIND** takes us to the first **H Padres** entry in the database: **06/01 7:05 H Padres**.

06/02	1:20	H	Padres
06/03	1:20	H	Padres
06/04		Off	Day
06/05	4:05		Expos
06/06	DH6/35		Expos
06/07	12:35		Expos
06/08	7:35		Cardinals
06/09	7:35		Cardinals
06/10	7:35		Cardinals
06/11		Off	Day

#### FIND Search Screen

If we want to continue searching for more Cubs, Padres home games we can press **(F7)** again. **H Padres** is still visible below the **FIND** prompt (**FIND** remembers the last search). The menu at the bottom of the screen prompts us to look for a **PREVIOUS** "H Padres" entry (press **(F5)**) or the **NEXT** "H Padres" entry (press **(F7)**). We want to continue searching forward, so we press **(F7)** again and the highlight bar now rests on **06/02 1:20 H Padres**.

#### Other Advantages

You can keep as many free-form databases as you want. The only

limitation you have is disk space. I'm a writer and I keep a running list of article ideas along with words and phrases I plan to use in them. This technique is helpful for writing advertisements because it lets me jot down headlines, angles, and hooks. I'm also a consultant, and use another database to track expenses, time and billing data.

There is almost no limitation on the type of information you can organize with a Phone Book database: Someone who works in sales could set up a sales/invoice database; a homemaker could keep recipe files, school records (and grades) for your children, home inventories, shopping lists, etc.; a physician could keep case/billing information.

Keep in mind that Phone Book's Print feature allows you to print out the entire Index list of your database, or the data on the individual cards. If you use the **ONLY** function described above, you can create a smaller subset of your database, and print that out also.

A number of vendors market connectivity packages for the HP 95LX (see Mar/April issue, page 11). These packages allow you to connect your 95LX to a desktop PC. Many of these packages come with software

that lets you merge and translate Phone Book files. With this ability, you could be on the road, making changes to your Phone Book database, and have someone back at the office entering information in the database on your desktop PC. The translate features allow you to convert any of your Phone Book databases into data formats for programs like Metro, SideKick, and a variety of other database formats. Upon returning, you could translate and merge the two databases, keeping both up to date.

*[Bil. Alvernaz, who has worked with palmtop computers for over two years, feels the HP 95LX has become the preferred choice because it continues to set the standard for palmtop computers. For the past decade Bil. has written about computers for USA TODAY, PC Magazine, United Feature Syndicate, and other publications. Bil. specializes in desktop publishing, as well as writing, media relations, and helping people get the most out of using computers. You can reach him at (209) 394-8188, MCI MAIL #207-8825, or FAX: 209.394.8918.]*

## Getting Started: DOS and System Manager

*The HP 95LX has two layers of its operating system which manage files; MS-DOS and System Manager. What is an operating system, and what is a file?*

By Hal Goldstein

As modern man probes deeper into the realities of creation, we gain more power, and a greater ability to manipulate our reality and achieve our goals. The deeper our level of understanding the way the universe operates, the more potential power we have. In the same way, the more we understand the hardware and software underlying our everyday use of the HP 95LX, the more we

can use the Palmtop to organize our own life, and accomplish our goals.

It's true that we don't need to understand all the physics and computer science involved at the various layers of our HP 95LX. However, understanding more about what is happening when we press those little blue application keys will significantly increase the usability of our 95LX Palmtop.

Getting Started in this issue and the next will talk about the

System Manager and DOS. We will dwell on the concepts of *Files* and *Directories*. A clear understanding

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of these concepts will give you much more control and power over your HP 95LX environment.

## DOS

The HP 95LX, like any IBM PC or PC-compatible computer, is a "DOS machine." This means that the "operating system" for the 95LX (and other PC-compatible computers) is the Microsoft Disk Operating System (referred to as "MS-DOS" or just plain "DOS").

Computers that use the same operating systems can often run the same software. Application software such as word processors, spreadsheet programs, or database programs are designed to work under a specific operating system.

The MS-DOS operating system serves as the intermediary between the computer's hardware and the software it runs. The "front end" of MS-DOS is what the user sees, and the front end looks the same to all users. For example, the DIR (directory) command in any DOS system lists the files in the current directory. However, DOS has to be customized so that it can run on a particular computer's hardware. For this reason the "back end" of DOS was modified so that it could work with the 95LX.

Other examples of operating systems include the Macintosh System 7, IBM's OS/2, and UNIX. Both Microsoft's Windows environment and the HP 95LX System Manager act as operating systems, but both depend on the MS-DOS being present. Each presents a unique operating environment (or front end) for the user.

## System Manager

The HP 95LX has the advantage of being both a DOS machine and of having a more friendly and powerful second layer operating system environment called "System Manager." The fact the 95LX is a DOS machine means that many DOS programs originally designed for an IBM PC compatible computer will either run directly on the 95LX, or can be modified to run (by the program's publisher) with relatively little effort. The 95LX's 40x16 screen, its small disk space, and its lack of PC-compatible graphics support are the

major obstacles to software running on the 95LX.

System Manager has the advantage of allowing users to open more than one program at once. This is not normally possible in a straight MS-DOS environment. 95LX users don't think twice about opening their phone book, then switching to MEMO to jot down a note, going to Lotus 1-2-3 to check some figures, popping back to MEMO to finish the note, and then returning to PHONE, exactly where you left off.

In general, System Manager and its FILER application do a good job of hiding many of the complexities of the DOS environment from the everyday user.

## Files

Understanding some fundamental DOS concepts is necessary to make full use of the 95LX. From the user's standpoint, the most important function an operating system provides is a systematic and reliable means for storing data in "files." Users need to understand what constitutes a file, and a legal filename. 95LX users should also understand what directories and sub-directories are.

The first three columns in this series dealt with files. If we are to preserve our efforts in any application, we must save any work that we do into a file. We use System Manager applications such as Lotus 1-2-3, APPT, PHONE, MEMO, COMM and HP CALC to create files. We can then use the System Manager FILER program to see exactly what files we have.

## Legal Filenames

Filenames can have as few as 1, or as many as 12 characters. The format of a filename consists of 1-8 characters (optionally followed by a period and 1-3 more characters). You can create the filename using numbers, letters, and most special characters, such as underline, hyphen, or # sign. IMPORTANT: Empty spaces are not allowed. Here are some examples of legal file names:

MEMO3X92.TXT	BUDGET.WK1
MAIN.PBK	MAIN.ABK
SPECIAL.EQN	READ_ME
XYZ123\$	DO-IT.NOW

## HED - A Hex Editor For The 95LX

HED is a tiny (under 6K), full screen Hex Editor for use with "small" files (up to approximately 55K in size). HED is System Manager compliant, so it can be popped up over System Manager applications, and other applications can be popped on top of HED.

Within the 40 x 16 display you can modify the hex values of individual bytes, or "tab" to the ASCII display to edit text strings etc. HED is more convenient, and easier to use than Debug for these applications.

HED is available as an executable program, or as Forth source code ready for meta-compiling with the UTIL metacompiler (available separately).

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The optional period and final three characters is known as the file "extension." The 95LX's built-in applications enter the period and three-character extension for you. For example, let's say you save a Lotus file, and give it the filename BUDGET (or any 1-8 character name). 1-2-3 saves the file as BUDGET.WK1, automatically giving it the .WK1 file extension. Similarly, when you save a MEMO file as REPORT, MEMO saves the file as REPORT.TXT.

When PHONE saves its files, it gives them the .PBK extension. So if your main phone directory is called MAIN, the PHONE application actually saves it as MAIN.PBK. APPT saves its files with the .ABK extension (e.g. MAIN.ABK). Finally, COMM saves its configuration files with the .DCF extension and HP CALC saves Solve equations with the .EQN extension.

Note that in most of the built-in applications you don't have to use the default extension when you save a file. For example, you could save a MEMO document as REPORT.DOC

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instead of REPORT.TXT. The disadvantage of not using the default extension is that when you try to open a file in MEMO (by pressing **MENU** File Open), only those files with the .TXT extension are listed automatically. (From MEMO you can get a listing of your files with the .DOC extension by first pressing **MENU** File

Open. When you see the "File to open:" prompt, backspace once to erase the \*.TXT. Type in \*.DOC, and press **ENTER** for your file listing.)

### Directories

Understanding directories and sub-directories is also important for HP 95LX users. In the next issue we will go into some detail about them. For now, understand that directories and subdirectories are locations on the disk where files can be stored. For example, built into every 95LX is the directory named \_DAT. Enter FILER and look below the C:\ at the top of the file screen and you'll see a line that looks something like this:

```
_DAT <DIR> 04-01-91 12:00a.
```

The <DIR> indicates that \_DAT is a directory, not a file. The date and time indicates when the directory was created.

Because \_DAT exists, it's possible to save files to two places: To either C:\ (the C Main Directory, also called the "Root Directory" of your C drive) or to \_DAT (the \_DAT subdirectory on your C drive root directory). When you save PHONE,

APPT, MEMO and HP CALC equation files, they automatically get saved to the \_DAT (data) Directory.

To understand directories better, think of the C Drive as a file cabinet. You store a lot of individual files in your cabinet. In addition, you can create one large, fat file (your \_DAT directory) in which you place a lot of little subfiles. You can put new files into either the Main File Cabinet or into the thick \_DAT file. We'll go into more detail on this next time.

### Save Your Files!

A reminder: A file is not saved until you give the Save command. This has been discussed in all three past issues, but it is definitely worth repeating. If you're still not clear on it, reread the past "Getting Started" columns and check your *HP 95LX Quick Start Guide* or the *HP 95LX User's Guide*.

Whether you have created a worksheet in Lotus or a letter in MEMO, save it if you ever want to use it again. Once saved, the letter, worksheet, or whatever you have created, exists as an individual file, normally stored on your C drive.

(Letters continued from page 4.)

### AC Adapter and Carrying Cases

A few things to share with our fellow readers.

1. Power - Apparently HP does not make a dual voltage AC adapter. They come as 120 volt or 220 volt.

Your Fall 1991 issue mentioned that the 95LX will take AC or DC 9V. I travel internationally with my Sony Discman which comes with a 9V universal voltage AC adapter. This adapter works great with the 95LX. Now I carry only one AC adapter for both the 95LX and the Discman.

2. Cases: When I bought my second 95LX in August, there was a Franklin ad in the HP 95LX box offering a leather carrying case for about \$15. It has seemingly flimsy belt slots and I really

did not expect it to last. I have been wearing the case daily for the past five months and there was no signs of tear in the slots. Leather and stitches are also very durable. The case is getting softer and better as I use it.

Peter More  
Los Angeles, CA, USA

### INTERNATIONAL CONCERNS

#### International Subscribers Need More Consideration

The advertisers in *The HP Palmtop Paper* should be more considerate of customers outside the U.S. For the same reason, I would prefer to see less references made to services like Compu-Serve, which are not easily

accessible outside the U.S.  
Sergio Casanova  
Hong Kong

#### Lotus Bug in Non-English @ Commands

I was suprised to discover that it's impossible to use the German @ISTZAHL (...) command (for the English @ISNUMBER(...)). So I switched my 95LX to "English" and restarted Lotus again. I used the original @ISNUMBER command and saved the worksheet. After switching back to the "German" language I found that Lotus uses the incorrect form @ISTZAHL ((...), with two open brackets.

This is how you can cope with impossible-to-use commands:

1. Close all applications and switch language to English

```
[Konfig][Land][Sprache]  
[English][Quit][Quit]
```

2. Select Lotus 1-2-3; note: Although most of your German macros will not work, the @-formulas will!

3. Find out the original @-command, i.e. by using the Help function. Use that command and save your worksheet.

4. Close applications and reselect German  
[Konfig][International]  
[Language][Deutsch]  
[Zurück][Zurück]

5. Select Lotus again, reload your worksheet and see what happens.

Michael Kuschwitz  
Hannover, GERMANY

#### Displaying Week Numbers

We often indicate week numbers in Sweden when

working with schedules (1-52). When I work with APPT I can't do this. Do you know of any solution?

**Tomas Wahlgren**  
SWEDEN

[The free Subscribers Disk will contain a week-at-a-glance program in which you can access a week by its number - Hal.]

**Need Turkish and Russian Text Editor**

I am a civil engineer in construction management and have been using HP handheld scientific and business calculators for more than 12 years. In all those years I have been looking for a friendly way of sharing new ideas and information. My pleasure is that you have succeeded in doing this. I'm glad that *The HP Palmtop Paper* will support novices as well as experienced professionals. Like many others, I am not a computer professional. I feel better that you offer a valuable source of information to us.

I am now looking for a way of writing Turkish and Russian text with my 95LX. I need a small editor which can produce characters for these languages in MEMO or 1-2-3. Do any of your readers know of anything?

**Ahmet G. Oeziesik**  
Istanbul, TURKEY

**95LX in the Jungle**

This electronic wizard has travelled the world with me. From the jungles of remote Irian Jaya, Sumatra etc. It has been invaluable - the best invention since the wheel and in pocket size!!

**Guillermo Velasquez**  
HLS Far East Division

**Frustration in Italy**

I thoroughly read the Fall 1991 issue of *The HP Palmtop Paper* and my evaluation is a very favourable one; it is carefully balanced for beginners and more advanced users, full of real-

ly useful and clearly presented information.

Here in Italy, finding and purchasing 95LX-related products is a nightmare. For as simple an accessory as a Mac-95LX cable, I have to place an order with a licensee here in Rome and wait a minimum of 3 weeks. In addition, I had to make a down payment equivalent to 40 US dollars. The final price is still unknown to both me and the local vendor, but it's said to be between 2 and 3.5 times U.S. street price.

Can you do something to improve this situation? Please keep in mind that the only reliable credit card company, here, is American Express; the one that none of the companies advertising in your paper accepts. Here is a suggestion: Hewlett Packard's Italian branch could collect and process orders (also for

third-parties' products), accepting payments in Italian currency and charging enough to cover handling expenses. In exchange, I believe, higher HP 95LX sales can be expected. Software could also be distributed through Italian BBSs.

An upgrade path should be made available to current HP 95LX registered users. In a year's time, say, I would not feel like paying the full price for a new 95LX (perhaps built around a 386 chip and handling 8 MB cards).

**Michele Concina**  
Roma, ITALY

**Problems Encountered by Non-U.S. User**

Thanks for sending me the first, very interesting issue of *The HP Palmtop Paper*. Here is a 95LX problem, which other (especially non-U.S. users) may echo.

HP CALC's conversion

functions are very useful, but HP should recognize that not everybody uses the U.S. conventions for mass and volume. I doubt if many in the U.K. would need to convert to U.S. pints, quarts, or tons. (We do, however, use U.S. gallons in aviation.) It would be better to allow the user to set these, or for HP to arrange for an International version of the 95LX that recognizes the differences and selects the appropriate table according to some choice in SET UP.

I hope that HP in England will be more supportive and not bounce all questions on to DIP Systems. I also think it would be good if somebody in the U.K. was a distributor for *The HP Palmtop Paper*.

**John Garrett**  
Ipswich, ENGLAND

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If you already own *MacLinkPlus/PC*, all you need is the special *MacLinkPlus 95LX Connectivity Kit*. Just fax or mail us your order with your *MacLinkPlus/PC* registration number and payment of \$35.00 (*shipping included if within the US*).

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## New Non-HP Products designed to work with the HP 95LX

By Richard Hall and Hal Goldstein

We listed over 120 hardware and software products, and other 95LX-related services in the first three issues of *The HP Palmtop Paper*. We will continue to list 95LX hardware and software as we discover them. If you know of new products (or old ones we haven't mentioned) please let us know. Vendors of 95LX-related products should send us information on new products, or significant changes in existing ones.

### Hardware

#### Communications

##### 2400 bps miniModem

This pocket-sized portable modem works with the 95LX using either an external adapter or internal 9-volt battery. Automatically adjusts speed and transmits at 2400, 1200, or 0-300 bps. Hayes compatible.

The miniModem has two RJ-11 phone jacks and includes a 9-volt battery, AC adapter, phone cords, holder, carrying pouch, User's manual, and two-year warranty. Needs a serial cable.

[See Advertising, page 13.]

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■ **Unterminated Serial Cable** — molded 4-line plug on one end connects to the 95LX. Other end terminates in 4 wires for you to solder to

the connector of your choice.

■ **Standard Serial Cable** — is like HP's serial cable for the 95LX. 4-line serial connector on one end and female DB9-pin RS232 connector on the other.

■ **95-to-95 Cable** — has 4-line serial connector on each end of cable. Lets you connect two 95LXs for file transfer 4 times faster than infrared port transfer.

[See Advertising, page 13.]

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Standard .....	\$15.95
95 to 95 .....	\$22.95

CONTACT: *EduCALC*, 27953 Cabot Road, Laguna Niguel, CA 92677, USA; Phone: 800-677-7001 or 714-582-2637; Fax: 714-582-1445.

#### Power Adapters

##### Automobile Lighter Adapter for the HP 95LX

Plugs into a standard automotive lighter plug and accepts 11-15 VDS input. Output is 10V maximum and is protected against reverse-voltage, over-voltage, and surge-voltage.

[See Advertising, page 13.]

Availability ..... NOW  
Pricing ..... \$34.95  
CONTACT: *EduCALC*, 27953 Cabot Road, Laguna Niguel, CA 92677, USA; Phone: 800-677-7001 or 714-582-2637; Fax: 714-582-1445.

#### RAM Cards

##### Active Data

Memory cards for the 95LX ranging from 256K to 2MB. Cards preformatted, with one installed and two additional backup batteries. Cards come with 14 month warranty.

[See advertising, back cover.]

Availability ..... NOW  
Pricing ..... Call  
CONTACT: *Active Data - Consumer Division*, 4642 East Chapman Avenue, Suite 304, Orange, CA 92669, USA; Phone: 800-223-0543 or 714-997-7718; Fax: 714-997-0283.

### Imaging Supplies Express

Markets SRAM memory cards for the HP 95LX. (*Wrong prices listed last issue. Please see advertisement, page 42 this issue for correct RAM card pricing.*)

### Recovery and Backup Card

The HP 95LX "Disaster Recovery Card" allows you to recover from system lockups and other problems that can cause you to lose the contents of the internal RAM disk. In addition to recovery features, the card also provides 64K of memory to backup your APNAME.LST, SETUP .ENV and other configuration files. The card can also be used for backing up data files up to 64K.

Availability ..... NOW  
Medium ..... Memory card  
Pricing ..... \$49.95  
CONTACT: *Palmtop Resources*, 5910 North Central Expwy., Suite 1000, Dallas, TX 75206, USA; Phone: 214-891-2218.

### Software

#### Communications

##### The Maclean Mailer

This program provides automated access to MCI Mail for 95LX users. Compose and read messages off-line and the mailer does all the work of connecting to MCI and of uploading and downloading your Email.

The Mailer provides full support for MEP2 and MNP. MEP2, MCI's mail-exchange protocol, enables the sending and receiving of binary files as attachments to mail messages (spreadsheets, WordPerfect documents, ZIP archives, etc.). The mailer fully supports all MCI message types including fax and telex dispatch. MNP, implemented in software, error protects MCI even without an MNP modem.

The Mailer is a small program, occupying about 58K of disk space.

The Mailer is highly configurable and is in use in many parts of the world. It supports Connect Strings compatible with those used by Lotus Express for connection via foreign PADs.

The Mailer acts as a communications agent only. It has no facilities for composing, reading or ar-

chiving messages. Users can take advantage of the HP 95LX's built-in MEMO editor or another word processor for reading/writing messages.

Availability ..... NOW  
 Medium ..... Floppy disk  
 (specify 3.5" or 5.25" disks)  
 Runs under SysMgr ..... No  
 Pricing (US) ..... \$49.00  
 (Those ordering from California addresses should add local sales tax. We welcome foreign orders with an additional \$5 shipping and handling fee.)

CONTACT: Pete Maclean Software, P.O. Box 591359, San Francisco, CA 94159-1359, USA; Fax: (415) 751-4635; CIS ID: [75776,660]; MCI Mail: 263-7215.

Credit card orders should contact: PsL, P.O.Box 35705, Houston, TX 77235-5705, USA; (800) 242-4775 or (713) 524-6394; Fax: (713) 524-6398; CIS Email: [71355,470]. Please specify item #10503 when ordering via credit card!

## Specialized Products

### HP 95LX ETen Chinese System

This program provides for input and display of Chinese characters in the 95LX and allows users to run Chinese applications within ETen.

Chinese character input can be done by the Tsang Jie, Chuyin, or romanized phonetic methods. ETen contains drivers that allow Chinese character input in Lotus 1-2-3, with the menus still in English. ETen also provides a bilingual (Chinese/English) editor.

The 95LX version of ETen is based on the popular PC ETen software. ETen comes with reference manuals, serial cable, overlay, and software on a 5.25" floppy disk. Software includes the ETen programs and Chinese printer drivers for 9-pin and 24-pin dot matrix and HP LaserJet/DeskJet printers.

Availability ..... NOW  
 Medium ..... Floppy disk  
 Runs under SysMgr ..... n/a  
 Pricing ..... Call  
 CONTACT: Hewlett-Packard Taiwan Ltd, 8F, 337 Fu-Hsing North Road, Taipei, 10483, Taiwan, R.O.C.; Phone: 886-2-717-9603; Fax: 886-2-717-9531.

## Utilities

### 95 Utility Pack

Thirty-six small programs written

in assembly language and optimized for the 95LX's 40-column display.

Get accurate information about memory, battery status, contrast, speaker level, and keyboard state; set computer states from the DOS command line; find files fast; display graphics; play music; automate graphics demos; enhance cursor; more.

[See Advertising, page 13.]

Availability ..... NOW  
 Medium ..... Floppy disk  
 Runs under SysMgr ..... No  
 Pricing ..... \$27.95

CONTACT: EduCALC, 27953 Cabot Road, Laguna Niguel, CA 92677, USA; Phone: 800-677-7001 or 714-582-2637; Fax: 714-582-1445.

### Goodies I

Over 30 games, utilities and .PCX image files written for the HP 95LX.

#### UTILITIES INCLUDE:

- FONT SHELLS - providing 20x8, 60x21, 60x25, 80x21 and 80x25 resolutions for DOS programs that use DOS or the BIOS for output.
- AC - is an area-code utility that shows the city and local time for an area code, or the area-code for a given city.
- STATUS - a status display that shows the battery levels, disk space and other settings, including password and AC adapter status.
- PCXVIEW - a .PCX file viewer that can do slide shows or scroll .PCX images larger than the screen.
- HP95MODE - lets you control the serial port, light sleep, beep volume and display scrolling, contrast and timeout from the command line and batch files.
- STARTREK - displays the United Federation of Planets logo and "chirps" at power-on.
- HPERIOD - The periodic table of elements, with information on each element.
- HPL - a graphic menu program that lets you launch programs by selecting an icon. Reads Windows .ICO icons. Comes with 180+ icons built-in.
- HPV - A simple viewer for .DXF CAD files. Scrolls and zooms files with text and lines.

#### GAMES INCLUDE:

- HPQUBIC - a graphic 3D tic-tac-toe program.
- HPART - screen-saver program.
- HPNEKO - a cute little cat chases your ball around the screen. Great for young kids.
- BEBACK - the Terminator says "I'll be back!" from your speaker.

#### .PCX FILES INCLUDE:

- RULER - turns your screen into a ruler in inches and centimeters.
- NOTEPAD, PENCILS, UFP and MAP - .PCX files designed for use as opening topcard screen.

Availability ..... NOW  
 Medium ..... Floppy disk  
 (specify disk size)  
 Runs under SysMgr ..... No  
 Pricing ..... \$35.00  
 (Plus \$3.95 shipping & handling, \$7 international)

CONTACT: Dave Goodman, 448 Ignacio Blvd. #220-TPP, Novato, CA 94949, USA; CompuServe ID: [72330,130].



## 95 LX DEALERS

Let us help you regain lost margins!

You can now buy PCMCIA 2.0 (HP compatible) memory cards ranging in size from 64 KB to 2 KB. We provide:

- FULL ONE YEAR WARRANTY
- FREE BATTERY PROGRAM
- COOP ADVERTISING
- UNIQUE TRADE UP PLAN
- DEALER PRICE PROTECTION
- PRIVATE LABELING
- CUSTOM CARDS

SILICON DISK CORPORATION  
 P.O. BOX 909  
 GRAPEVINE, TEXAS 76051

PHONE 817-421-8922  
 FAX 817-488-3796

# ▲▲▲ QUICK TIPS ▲▲▲

## 1-2-3 Lotus

### MACRO TO FIND ITEMS

When using 1-2-3 as a database or note collector, the following macro makes finding an item easy:

```
{goto} A1~/RSA3..G250 -  
{BS 9}{?}-BF
```

This macro searches cells A3 through G250 for the character string it prompts you for.

*Barry A Cushman  
Louisville, KY*

### USING THE 95LX TO MAKE PRESENTATIONS

One of the surprise uses for my 95LX was presenting data in meetings. I had some 1-2-3 data that I had been working with while on a plane flight. When I got to my destination, I didn't have time to print the graphs. I wound up just using the 95LX in the meeting. The small screen did force everyone to one side of the table, but having the live data ended up helping the presentation.

*Ted Dickens (HP Forum Sysop)  
CompuServe ID: [76701,272]*

### PROBLEMS RUNNING LOTUS ADD-INS

There are two problems with running commercial 1-2-3 add-ins on the 95LX. One is that an add-in cannot modify the 1-2-3 code, and most 1-2-3 add-ins need to modify the core 1-2-3 code. The second is that an add-in must be 95LX-aware in order to keep the system from crashing under specific circumstances. Macro Manager and Budget Express don't work for the second reason.

*Mark Horvatic  
CompuServe ID: [76703,4163]*

## ⊕ Battery

### BATTERY LIFETIME VARIES

All depends on the amount of use. I heard that HP projected a typical user would use the 95LX about one hour per day. At that rate, the unit is supposed to get eight weeks per set of batteries. I use my 95LX far more than that; I get 2-3 weeks per set of batteries.

*Ted Dickens (HP Forum Sysop)  
CompuServe ID: [76701,272]*

### BATTERY GAUGE INACCURATE WITH RECHARGEABLE BATTERIES

Rechargeables are fine as long as you don't rely on the battery gauge. You should be able to get one to two days of use per charge.

*Ted Dickens (HP Forum Sysop)  
CompuServe ID: [76701,272]*

### MIDNIGHT MADNESS CAN DRAIN BATTERIES

My 95LX turns on automatically at midnight. I assume to do a date rollover. If one of the built-in ROM applications is on, my 95LX turns off again - no problem. However, if I leave one of the applications I have written for the 95LX open but turn off the Palmtop, the 95LX wakes up at midnight and then stays awake until the batteries are gone. (The application I wrote disables the automatic timeout and requires the user to manually turn the 95LX off.) Other applications may act the same way.

*Terry Liittschwager  
CompuServe ID: [76226,2066]*

## ⌚ Appt

### KEEPING TRACK OF ACCOMPLISHMENTS IN APPT

One of the problems I have in using the APPT book is that there is no built-in method of recording my accomplishments on a daily basis.

To get around this problem, I currently use the "Done" in my To-Do list (9th Priority, No carry forward when the entry is inserted). This allows me to keep track of events and accomplishments on a daily basis, attaching notes to the To-do entry when I need to record more detail. I then use appts., todos, and ones for the week to write-up a weekly summary of my activities and plan my next week.

*Jim Sauer  
CompuServe ID: [76314,1700]*

### USING TWO APPT LINES FOR SAME APPOINTMENT

I use two lines for one appointment. The first is a repeating appointment, and the second a standard appointment modifying the first. For instance:

```
9:00a Weekly Status Meeting  
9:00a WeekStat - in Elderberry  
This gives me more room for information, and more flexibility.
```

*Ed Greenberg  
CompuServe ID: [76703,1070]*

### SAFE TO LEAVE APPT OR ANY APPLICATION OPEN

It's absolutely safe to leave any of the applications open (i.e. built-in applications like Lotus and PHONE, or third-party applications like ACT!). However, you should save your open applications files from time to time. An unexpected glitch in the program, or a faulty battery could force you to reboot, and you could lose the data in your open applications.

*Ted Dickens (HP Forum Sysop)  
CompuServe ID: [76701,272]*

## ↔ Comm

### DETECTING INFRARED OUTPUT

Radio Shack sells an Infrared Sensor (Cat.No. 276-099, retail: \$6), a strip of plastic about half the size of a credit card that glows when exposed to infrared radiation. When you tell the FILER to link to a remote, you will see the light pulse once a second as the 95LX tries to hail another 95LX.

*Dave Goodman  
CompuServe ID: [72330,130]*

## Ⓜ DOS Tips

### USER DEFINED CHAR KEY TO START DOS PROGRAM

A letter on page 4 of the Mar/Apr 1992 issue indicated that a subscriber developed a macro to launch DC95.EXE, a DOS program. Here is what that macro would look like:

```
{F5}DC95.EXE{ENTER}{ESC}{F4}
```

You can create such a macro for any DOS program or batch file (files with the .EXE, .COM, or .BAT file extensions), just make sure you include the file extension with the filename.

The above macro will work as long as you are in FILER, in the same directory that the program or batch file is in, and have all other built-in applications closed. You can modify the above macro to include the path (location) of the DOS program or batch file you want to Run. Then you don't have to be in the same directory as the program to start it up.

*Rich Hall  
Editor, The HP Palmtop Paper*

### ALL "PATH" REFERENCES SHOULD BE IN UPPER CASE

One item I discovered after a surprise RAM disk re-initialization, was that ALL the path references in my CONFIG.SYS and AUTOEXEC.BAT should be in upper case. It is documented in developers material that the 95 may miss them otherwise.

*Mark Scardina  
CompuServe ID: [71551,467]*

## ⊞ HP Calc

### CURRENCY CONVERSION

When you use the "currency conversion" function on the calculator you must set the environment to "fixed, two decimal places" in order to be able to correctly edit the conversion factors.

*Michael Guberek  
Solana Beach, California*

### TWO TIME VALUE OF MONEY WORKSHEETS AVAILABLE

HP Calc's "Time Value of Money" (TVM) menu option lets you develop amortization tables and do other calculations relating to borrowed money. Two worksheets are available with TVM.

Enter **HP CALC**, press <Menu> and select TVM from the top menu bar. Press <LeftArrow> or <RightArrow> to toggle back and forth between the two TVM worksheets.

*Hal Goldstein  
Editor, The HP Palmtop Paper*

### EDIT .EQN FILE IN MEMO

You can use MEMO to make modifications to HP Calc Solver equation files. Press <MEMO> <Menu> File Open, backspace to delete the \*.TXT. Type in \*.EQN and press <Enter>. You are presented with a list of the .EQN files in C:\\_DAT. Select the desired equation file and edit in MEMO. It's far easier to edit a .EQN file with a text editor than to try to do the same thing in the Solver Editor.

*Ed Keefe  
Ankeny, IA, USA*

## ⊞ Mac

### MAC CONNECTIVITY

I found a copy of Mac Kermit in the CompuServe Mac Communications Forum and it works great. Both Kermit and Xmodem protocols are

provided on the 95LX. All you need is the cable to connect the 95LX to the Mac (HP 82223A). If you do not have communications software for your Mac, you may order the "HP 48SX to Apple Macintosh" serial interface kit (HP 822094A), which includes the serial cable and Kermit for the Mac.

To run XMODEM, HP to Mac, run a Comm program on the Mac and set it up to receive a file. Start COMM on the 95LX and set it up to send a file.

To run XMODEM, Mac to HP, use above procedure but swap the send and receive.

To run Kermit, connect and run Kermit on both systems. Place one of the systems in "Server" mode. On the non-server system use GET, SEND or RECEIVE to send files to or from the "Server".

For backing up the 95LX I set it to "K-Server" and use GET FILE... from the FILE menu on the Mac. GET FILE accepts wild cards for file names, thereby allowing groups of files to be sent at 1 time.

*Don Class*  
CompuServe ID: [73477,2460]

## MACCHUCK FOR MAC CONNECTIVITY

MacChuck, available from Vano Associates for \$99 (612-788-9546 in the U.S.) lets the 95LX access files on the Apple Macintosh, and run the 95LX remotely from the Mac keyboard. You must install a MacChuck device driver on the 95LX. MacChuck only works when the 95LX is in System mode (FILER Menu System), with the transfer rate set to 9600 bps. You must connect the Mac to the 95LX via a special cable available from an HP dealer (part # HP 82223A).

You can run Lotus, PHONE, and any other text-based program on your Mac screen, and use your Mac keyboard dot input data. File transfer is a cinch — check it out!

*Chris Lapp*  
CompuServe ID: [72167,1740]

## Memory Cards

### CHANGING BATTERY IN A SRAM CARD

Unless the battery is completely shot, an SRAM card (A drive RAM card) should retain memory long enough to allow you to change the battery. That's one of the advantages of SRAM cards

*David Hamachek*  
CompuServe ID: [73700,2250]

## Phone

### DIVIDING PHONE FILES

Break a .PBK file into smaller files by pressing <F9> (TAG) from within PHONE to mark the names you want. Then press <MENU> File Xtract to save this partial file.

*Ed Keefe*  
Ankeny, IA, USA

## & Misc

### 512K OR 1MB 95LX: WHICH SHOULD YOU CHOOSE?

The 512K version can be configured with a maximum of 504K of system memory (only practical if you have a RAM card to store your other files). The 1MB 95LX can be configured with 626K for system memory. That means you can run larger DOS programs on the 1MB version, and still have 398K for C drive storage.

However, you should remember that the built-in software runs directly out of ROM (it doesn't get copied into system RAM like the software on most desktop PCs). That means you don't need as much system memory if all you're running is the built-in applications. What you do need is file storage space, and for this I consider a RAM card essential. It's excellent for keeping your key data backed up wherever you go. (For example, store a copy of your Phone Book on both the A and C drives.) If your choice is between a 1MB 95LX without a RAM card and a 512K version with a 512K card, go for the latter.

*Ted Dickens (HP Forum Sysop)*  
CompuServe ID: [76701,272]

### DON'T COPY SETUP.ENV FROM OLD 95LX TO NEW OR UPGRADED VERSIONS

If you sent your 95LX away for the 512K-to-1MB upgrade, you probably backed up all of your files. Don't copy the old SETUP.ENV file back when you get your upgraded 95LX. (To copy SETUP.ENV, you would need a DOS utility to change the current 95LX SETUP.ENV's read-only status.)

Bug fixes and enhancements in the 95LX built-in software added two bytes to the structure of the SETUP.ENV file (starting with Rev 1.03, 9.91). The upgraded 95LX software will not be able to read all of the information stored in the old

SETUP.ENV file. Specifically, you'll lose your CHAR Key macros.

One solution is to copy the set up information before you send your 95LX away, and reenter it on the upgraded 95LX. The CHAR key macros are especially important and can be copied via the clipboard from SET UP to MEMO, and then saved as a .TXT file. When you get your upgraded 95LX back, restore the .TXT file use Cut and Paste to copy the macros from MEMO back to SET UP.

*Marty Mankins*  
Take It With You  
Orem, UT, U.S.A.

### LAST SHOT TO SAVE FILES

If you've tried everything else with your locked up 95LX, and are ready to reformat your C drive, try this.

First, attach the AC adapter. Then, open the battery compartment and partially remove one battery so that it is still in the compartment under spring tension, but missing electrical contact by a few millimeters. Finally, simultaneously, remove the AC adaptor line from the 95LX while shoving the battery back into place. The effect is to cause a power fail interrupt in the 95LX, jarring it out of its locked-up state, without loss of memory. Some files may be corrupted in this inelegant last resort, but on several occasions I've recovered from lock-ups with no apparent damage.

*Paul Levine*  
San Diego, CA, U.S.A.

### WATCH OUT FOR NICKELS IN THE RAM CARD SLOT

I like to carry the card side down in my pocket so I don't scratch the infrared port cover or short out the serial port with a coin. However, I did this once without my RAM card inserted and a nickel went into the card slot. I took me a while to figure out what was sloshing around inside the unit. A piece of tape over the empty slot is not a bad idea.

*Larry Lefkowitz*  
CompuServe ID: [76137,155]

### MODIFYING FILES FROM HIDDEN C:\\_SYS DIRECTORY

The HP 95LX contains a hidden directory named \_SYS. The contents of this directory is different depending on the particular language version of the HP 95LX you have. For example, you will find language-specific help files in the C:\\_SYS directory.

When you reinitialize (reformat) your C drive (press <Ctrl> <Shift> <On> Yes) a number of the potentially modifiable files automatically get copied from C:\\_SYS to the C:\\_DAT directory (see C:\\_SYS\SYSINIT.BAT). The files in the \_SYS directory cannot be modified since they are in ROM. These files can be modified or deleted from another directory once they have been copied there.

One example of such a file is \_1.PBK, a simple PHONE file that lists the country PHONE code for 20 countries. Easy access and modification of \_1.PBK requires its being copied to the \_DAT directory.

If you have deleted some of these files from \_DAT and want them back, here is the procedure:

1. Enter FILER
2. Press F5 (Goto)
3. Type C:\\_SYS and press <Enter>
4. Move cursor down desired file
5. Press F2 (Copy)
6. Type in C:\\_DAT (or another location you want the file copied to)
7. Press <Enter>

*Hal Goldstein*  
Editor, The HP Palmtop Paper

### HARD RESET A QUICK FIX FOR STRANGE BEHAVIOR

If you run into any inexplicable behavior (the 95LX doesn't beep anymore, the serial port won't turn on, other uncivilized behavior) you might try a hard reset first (press <Ctrl> <Shift> <On>). Make sure you answer "NO" when you are asked if you want to "Initialize the RAM Disk?"

*Larry Lefkowitz*  
CompuServe ID: [76137,155]

## Printer

### TOUCH KEY TO SPEED UP PRINTER

Are you frustrated by the slowness of your printer when it is connected to the 95LX? Does it seem like your printer is too exhausted to continue after it prints each line of data? There is a simple solution: Just touch any key on the 95LX and your printer will return to life in the fast lane! I can't explain it, but apparently it has something to do with the 95LX's DOS print driver.

*John Pomeroy*  
State College, PA

## HOW TO CONTACT US

There are a number of ways to get in touch with *The HP Palmtop Paper* staff. You can write; mail us a disk with your comments; send CompuServe mail; fax; or call. Our address is:

**Thaddeus Computing, Inc.**  
**The HP Palmtop Paper**  
**PO Box 869 or 57 E. Broadway**  
**Fairfield, IA 52556, U.S.A.**

**Fax #:515-472-1879**  
**Phone: 515-472-6330**  
**or 800-373-6114**

**CompuServe ID:**  
**Hal Goldstein, [75300,2443]**

To advertise in *The HP Palmtop Paper*, contact advertising sales director, Brian Teitzman.

To subscribe, change address, or clear up any problem with your subscription, contact our subscription department (Director, Kelly Johnson).

## HP Technical Support

HP offers these options:

- **90-DAYS FREE SUPPORT**— is offered to all 95LX users and is available by calling (503) 757-2004.
- **FREE AUTOMATED SUPPORT**— is offered 24 hours a day by calling (800) 443-1254.
- **6-MONTH SUPPORT CONTRACT**— for \$149 you get a toll-free number and 6 months of unlimited support. Call (800) 443-1254.
- **900-NUMBER SUPPORT**— available on a pay-as-you-go basis (first minute free, \$2.00 per minute thereafter). Call (900) 288-0025.

The HP Palmtop Paper is not staffed to answer your HP 95LX questions by phone. If you send us a letter describing your problem, we may publish and respond to it.

## How to submit an article

The richness of *The HP Palmtop Paper* comes from the contributions of 95LX users. We and your fellow users welcome your submissions. (We do not offer payment for articles; your reward is knowing that you've helped others.)

If you have a good idea and want to "go for it," send it in via CompuServe EMail or send disk or hard copy to Hal Goldstein or Rich Hall at the above address. Alternatively, you can send an outline of your idea. We will try to guide you as to when and whether we would use the article and contact you if we need clarification or have any suggestions. We may want to use an article but for a variety of reasons you may not see it for many months. Also, please understand that we cannot promise to run any article.

If you can, especially if you write a Palmtop Profile, send us a black and white photo of yourself.

## Products Advertised in The HP Palmtop Paper

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QEDIT.ZIP	Application: Word Processor	Shareware	20
UNO13.ZIP	Application: Free-form database program	Shareware	20
HPNEKO.ZIP	Game: Cat chases ball around the screen	Shareware	30, 31
LRNCRV.EQN	HP CALC: Equation file, learning curve	Free	29
CUBS.ZIP	PhoneBook: Chicago Cubs schedule in .PBK and .WK1 formats	Free	36
TPSGRF.ZIP	Programming: Turbo Pascal graphics units	Free	3
_CARLOAN.WK1	Spreadsheet: Car loan worksheet (on US English 95LX)	Free	na
_CFLOW.WK1	Spreadsheet: Cash flow worksheet (on US English 95LX)	Free	na
_EXPENSE.WK1	Spreadsheet: Expense worksheet (on US English 95LX)	Free	31
_HOMEBUY.WK1	Spreadsheet: Mort payment worksheet (on US English 95LX)	Free	na
_STAT.WK1	Spreadsheet: Statistics worksheet (on US English 95LX)	Free	na
ARCE.COM	Utility: Decompresses .ARC files	Free	na
BIGSHELL	Utility: Puts hugh letters on 95LX screen	Shareware	30
DIALTO.ZIP	Utility: Produces touchtone dial tones on 95LX	Shareware	31
HPL.COM	Utility: Icon-driven menu system	Shareware	30
JAGGER.ZIP	Utility: Battery check, sticky Alt & Ctrl, more	Free	20
MKBAT.BAT	Utility: Batch file that creates batch files	Free	35
OZBEXT.ARC	Utility: Download protocol for CIS B+	Free	20
QE95.ZIP	Utility: Qedit 95LX setup file	Free	20
UMA10.ZIP	Utility: Macro key program	Shareware	20
WINSI.SYS	Utility: System driver	Free	30
UNZIP.EXE	Utility: Decompresses .ZIP files	Free	na
HPSL14.LIS	Text: Latest HP 95LX CompuServe library files listing	Free	na
HPSL15.LIS	Text: Latest library files listing for programmer's section	Free	na
STAC.ZIP	Text: Instructions for installing Stacker	Free	20
ADVERT.ZIP	Text: In-depth descriptions, products advertised this issue	na	na
PTP2.ZIP	Text: The HP Palmtop Paper, Mar/Apr, 1992	na	na
README.ZIP	Text: Cover letter for HP Palmtop Paper ON DISK	na	na

## Software mentioned in this issue and included in other issues of The HP Palmtop Paper On Disk.

AG.ZIP	(Jan/Feb 92) Chess and space invaders	Shareware	31
COMMO.ZIP	(Jan/Feb 92) Small and robust communications program	Shareware	16
DIET	(Fall 91) file Compression utility	Free	19
HPTRIX.ZIP	(Jan/Feb 92) Tetris clone, good graphics	Free	31
KBFX2.ARC	(Fall 91) Caps lock utility	Shareware	20
MESSG.ZIP	(Mar/Apr 92) Automates CompuServe for 95LX users	Shareware	14
PCO334.ARC	(Fall 91) Outliner to organize work	Shareware	20
PKL103.ZIP	(Jan/Feb 92) File compression for .COM and .EXE files	Shareware	19
SMCLOCK.ZIP	(Mar/Apr 92) System manager clock	Free	31
VDE.ZIP	(Fall 91) compact, powerful text editor	Shareware	16, 20, 35
ZIP151.ZIP	(Mar/Apr 92) file transfer program	Shareware	20
ZIPPER.COM	(Mar/Apr 92) Utility to unzip PKZip-created archive files	Free	4

The Fall 1991 *HP Palmtop Paper ON DISK* consisted of over 20 files, including those mentioned on page 36 of the Fall 1991 issue of *The HP Palmtop Paper*. The Jan/Feb 1992 *HP Palmtop Paper ON DISK* consisted of over 24 files, including those mentioned on page 43 of the Jan/Feb issue of *The HP Palmtop Paper*. The Mar/Apr 1992 *HP Palmtop Paper ON DISK* consisted of 28 files, including those mentioned on page 44 of the Mar/Apr issue of *The HP Palmtop Paper*.

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