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Publisher's Message	2
A Quick Review of the Basics	3
Touch Typing on the Palmtop	6
Many Ways to Backup Files	7

Powering Your Palmtop

AC Adapters	10
Batteries: A-Z	10

Behind the Scenes

Rules for Setting up your Palmtop; File compression; Creating special characters; Password protection; Adding System compliant programs, and more

14-15

Built-in Applications

Application Manager	16
Appointment Book	16
HP Calc	18
File	19
Lotus 1-2-3	20
Memo	20
NoteTaker	21
Phone Book / Data Base	22
Getting Organized	23
System Macros	24

Communications and Connectivity

Communications	27
Fax/Modems	27
Wireless Communications	28
Connectivity	29
Macintosh Connectivity	31
CompuServe	32
Other On-line Services	33
Printers	35

MS-DOS

DOS Operating System	37
DOS Programs	39
Programming Languages	40

Getting Support

Service Agreements, Back Issues, User Groups and More.	42
---	----

Best Products

Software/Hardware Review	44
--------------------------------	----

Indexes

Product Contact Information	47
Advertiser's Index	48
Best Tips ON DISK Index	48

Volume 4, Bonus Issue 1, 1995

THE HP Palmtop Paper

SPECIAL BONUS ISSUE

Best



Tips

1995



03>

YOUR HP PALM TOP JUST TOOK A QUANTUM LEAP.



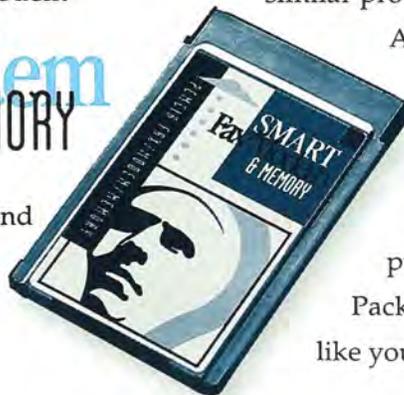
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Publisher's Message



Top: Hal Goldstein
Bottom: Robert Roney and Rich Hall

Welcome to our second annual *Best Palmtop Tips* issue! If you want to come up to speed quickly, take some time and go through this issue. In these pages you'll find the collective HP Palmtop wisdom of hundreds of users. We selected the most practical, important, bite-sized Palmtop knowledge that we published in our first 19 issues of *The HP Palmtop Paper*.

Once again, selecting and updating the information was a challenge. We wanted each tip to be of value to most users, to be self-contained, and to be part of a balance of HP Palmtop topics that we dealt with our first three years. For the second year in a row we ended up with twice as much material as we originally wanted. After two marathon cutting sessions in

which we sat around a table and tip by tip debated what should stay, we could not bring ourselves to cut any more.

We decided again to include several articles with the tips. We re-ran and updated the "Review of the Basics" section which contains important background material that all Palmtop should understand. Also, I ended up writing a new "Best Products" article where once again we were confronted with an abundance of material. Originally, my plan was to choose a half a dozen "best" products. However, as I got to thinking and writing, I felt readers would find more useful a survey of many of the excellent HP Palmtop products.

This issue serves HP 95LX, HP 100LX and HP 200LX users. However, where last year the emphasis was on the HP 95LX, this year that emphasis shifted to the HP 100/200LX. (HP 95LX users: 1994 *Best Palmtop Tips* issues and *Best Tips On Disk* are still available for purchase.)

Finally, as we put together the issue, the need for an associated disk emerged. Many tips and articles discuss freeware and shareware. The result: two jammed 1.44 megabyte floppies containing the contents of this issue for fast searching, plus latest versions of much of the software mentioned. (Many products such as Buddy and Vertical Reader have been updated just in time for this issue.) We made the disk a freebie for *The HP Palmtop Paper ON DISK* subscribers and available for separate purchase.

This issue turned out to be an excellent time to welcome a new member of our editorial staff, Paul Merrill. Paul brought a new user's perspective to the tip selection process, and learned a lot about the HP Palmtop in the process. Paul brings a rich background of experiences and strong writing and computer skills to our publication. Also, Paul is a cartoonist! You'll be seeing "seeing" a lot more from Paul this coming year.

Hal Goldstein

The HP Palmtop Paper

Volume 4, Bonus Issue #1

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Review of the Basics

95LX 100/200LX

A Quick Review of the Basics

Files, bytes, RAM disk, System RAM, and directories: Understand these concepts and you'll get more out of your HP Palmtop!

By Hal Goldstein

(Based on an article, Jan/Feb 93, page 47.)

Users need to understand basic concepts to get the most out of their HP Palmtop. Hours of confusion and frustration can be avoided if the beginning user understands the fundamentals necessary to perform any activity on the 95LX or the 100/200LX.

I'll cover the applied value of each concept briefly. For a more in-depth treatment of each, look at the "Getting Started" columns in the 1992 issues of the HP Palmtop Paper, consult the *HP 95LX User's Guide*, the *HP 100/200LX User's Guide*, or pick up an introductory book on personal computing.

Files

This is the single most important concept you should understand. Your Phone Book, Memo notes, Appointment Book, DataBase, 1-2-3 spreadsheets, and HP CALC equations are all stored in separate files. When you save a file in any of these applications, the information contained in the file is accessible upon demand. In addition, you can transfer such files to other computers.

CAUTION: Remember, on the 95LX when you add something to any of these files (i.e., a new address to your Phone Book), the addition does not become a permanent part of the file until you save the file. (In MEMO, PHONE, and APPT you save a file by pressing **MENU** **File** **Save** **ENTER** **Yes**.)

On the 100/200LX files are automatically saved in APPT, PHONE, HP CALC, Database, and Note Taker. Automatic save can be selected in MEMO. On both HP Palmtops, Lotus 1-2-3 spreadsheet files must be saved.

When you save a file for the first time, you are asked to give it a "filename"

between one and eight characters long (filenames may not include blank spaces). Examples of some legal file names include BUDGET, YEAR_END, and SAM-MEMO.

Both the 95LX and 100/200LX automatically "complete" the name by adding a three character "extension" to the filename. On the 95LX MEMO adds .TXT, PHONE adds .PBK, 1-2-3 adds .WK1, APPT adds .ABK, and HP CALC adds .EQN. On the 100/200LX MEMO adds .DOC, PHONE adds .PDB, 1-2-3 adds .WK1, APPT adds .ADB, Database adds .GDB, Note Taker adds .NDB, and HP

CALC adds .EQN. When you go into FILER and look at file names, you can easily identify the application the file was created by from its three character extension. [Note: Each of the 95LX's built-in System Manager applications (except 1-2-3) is limited to 64K of data space. That 64K holds the programs variables as well as the entire data file. So, for example, the largest phone book (.PBK) file you can have will be about 56K. The largest appointment book (.ABK) is a bit smaller, and a MEMO (.TXT) file can be just about the full 64K. The HP 100/200LX does not have these constraints.

Bytes

The number of bytes in a file is a measure of the size of the file. Each byte contains approximately one character (i.e. a letter, number, punctuation mark, etc.) worth of information. One kilobyte refers to 1024 bytes (and is abbreviated by the letter K). So a 12K file has roughly 12,000 characters worth of information.

RAM disk / System RAM

The HP Palmtops come with a built-in RAM Disk (designated as the C drive). When you save a file, by default you save

Undoing Mistakes and Canceling Operations

There are a number of ways to "change your mind" on the HP Palmtops, or otherwise get out of an undesirable situations such as a system lockup.

Press	(which Palmtop) - does this
DEL	(95LX/100/200LX) - deletes highlighted text.
<Backspace>	(95LX/100/200LX) - backs over and deletes text, character at a time.
ESC	(95LX/100/200LX) - Cancels current activity and restores previous screen (e.g. you're modifying a Phone Book entry and want to go back to the original.)
F8	(100/200LX) - Cancels dialog boxes without taking action. Closes open records without saving changes.
CTRL - C	(95LX/100/200LX) - Stops some DOS programs and batch files from running.
CTRL - Break	(95LX/100/200LX) - Stops some DOS programs and batch files from running.
MENU - Q	(95LX/100/200LX) - Quits current active built-in application.
MENU - E - U	(100/200LX) - Reverses last action, such as deleting, editing, cutting or pasting records. Does not work in all situations.
CTRL - ALT - DEL	(95LX/100/200LX) - Reboots the system. Good if you're locked up and can't get anything to work. If you do this, you'll lose any unsaved work.
CTRL - <Shift> - ON	No (95LX/100/200LX) - Hard reboot. Good if soft reboot doesn't work. Answer No when asked if you want to initialize the RAM disk.
CTRL - <Shift> - ON	Yes (95LX/100/200LX) - Hard reboot, reinitializing the C drive. WARNING! You'll lose the data on your internal drive. Do this if you really get stuck and nothing else works.

UNDOING APPT DELETIONS

Appointment Book on both Palmtops has a Remove option that lets you delete appointments that have already occurred. You can un-delete these appointments on the 95LX if you have not yet Quit APPT. When you do Quit APPT, you are asked if you want to "Save changes before exiting?" Answer **No** and any changes you made to APPT since you last saved it will not be saved.

On the 100/200LX, you can use the Undo feature described above to restore removed appointments. You can also press **MENU** **File** **Remove** and check the "Save Removed Items in Archive" box. When you remove past appointments, they will be saved in a file.

BEST TIP - BACKUP REGULARLY!!!

Finally, the most important thing you can do is backup your files on a regular basis. If your Phone Book or Appointment Book become corrupted, changed, or accidentally deleted, you can easily restore them.

Rich Hall
Editor, The HP Palmtop Paper

it to the C drive – onto the built-in RAM Disk. The double-A batteries (and if they fail, the backup battery) provide the energy needed to maintain your files in RAM. If all batteries go dead, you lose the files on your RAM drive.

The Palmtops also have part of their RAM set aside as System RAM to run programs and hold temporary files. When you run an application such as PHONE, a copy of your Phone Book file is stored temporarily in System RAM (the 100/200LX only stores part of the file in System RAM). When you add a new phone number, the temporary copy of the file is updated.

Saving the PHONE file on the 95LX by pressing **[MENU]** File Save **[ENTER]** Yes copies the updated temporary PHONE file from System RAM to the permanent file on the RAM Disk. The 100/200LX automatically copies the updated part of the Phone Book file to the permanent file on the RAM Disk.

System RAM / RAM disk ratio

On a 512K 95LX you start with a total of 512K of RAM that gets divided between System RAM and RAM Disk. If the RAM disk has 254K then System RAM contains 258K. Similarly, a 1MB 95LX or 100/200LX contains 1024K bytes of RAM. Initially that gets divided, 398K for RAM disk, 626K of System RAM. The 2MB 100/200LX gets divided into 1,376K for RAM disk and 636K of System RAM. The size of the RAM disk can be increased or decreased. More can be stored on the 2MB 100/200LX without dependency of a memory card. More important files can be stored on the HP 100/200LX for those with multiple memory cards. In addition, increased internal file storage enhances the Palmtops ability to use fax/modems and other communication devices.

You can change the System RAM/RAM disk ratio by closing all applications: On the 95LX press **[<SHIFT>]** **[FILER]** System Memory. Then use the left or right arrows to adjust the ratio and press **[ENTER]** **[ENTER]** to set the change. On the 100/200LX press **[&...]**, Setup, **[MENU]**, Option, System, tab to Memory and use the right and left arrows to change the memory allocation.

The greater the size of the RAM disk, the more space you have to permanently store data files and program files. (If you run out of space on the C drive, the internal RAM disk, you can install a memory card in the PC card slot to store your files. This adds a second RAM disk which the system designates as the A drive.)

The greater the System RAM, the more built-in applications (PHONE, MEMO, etc.) you can run at the same time. Larger System RAM also means that you can open bigger files (i.e. larger 1-2-3 worksheets). Therefore, if you want to switch back and forth between large PHONE, APPT, 1-2-3, and MEMO files, you might need to increase the size of the System RAM. In addition to the built-in applications the HP Palmtops can run other MS-DOS or System Manager compliant programs that may require more System RAM.

INDIRECTLY INCREASE SYSTEM RAM WITH A MEMORY CARD

A memory card or more internal memory lets you set the System RAM to its maximum (636K on the 100/200LX, 626K on the 1MB version of the 95LX, 394K on the 512K version of the 95LX).

MS-DOS

An operating system serves as the intermediary between the computer's hardware and the software it runs. The HP Palmtops, like any IBM PC or PC-compatible computer, is a "DOS machine." This means that the operating system is the Microsoft Disk Operating System (referred to as "MS-DOS" or just plain "DOS").

The fact that the Palmtops are DOS machines means that many DOS programs originally designed for an IBM PC compatible computer will either run directly on the Palmtop, 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. The 100/200LX will run more unmodified DOS programs because it supports CGA Graphics and an 80x25 screen. (See "AppManager" on page 16 for more on adding DOS programs to the HP 100/200LX.)

System Manager

The HP Palmtop 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."

System Manager allows users to have more than one program at the same time. This is not normally possible in a straight MS-DOS environment. Palmtop 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 they left off.

In addition, you can add other System Manager compliant programs to the Palmtops (see page 15). "System Manager Compliant" programs are written to be opened and run at the same time as the built-in applications.

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.

Directories

When you save a file, you save it into a directory. The HP Palmtops come with the C directory and the _DAT subdirectory built in. PHONE, COMM, APPT, and HP CALC files are automatically saved to the C:_DAT directory on both Palmtops. Lotus 1-2-3 files are saved into the C:\ directory on the 95LX and to the C:_DAT directory on the 100/200LX.

The simplest way to get a practical understanding of this is to go into FILER. If the top line says C:\ you can press **[<DownArrow>]** to see the names of all the files in C:\. To move to C:_DAT directory, put the black cursor line on _DAT and press **[ENTER]**. To go back to C:\, put the cursor on the line that says .. View Up and press **[ENTER]**.

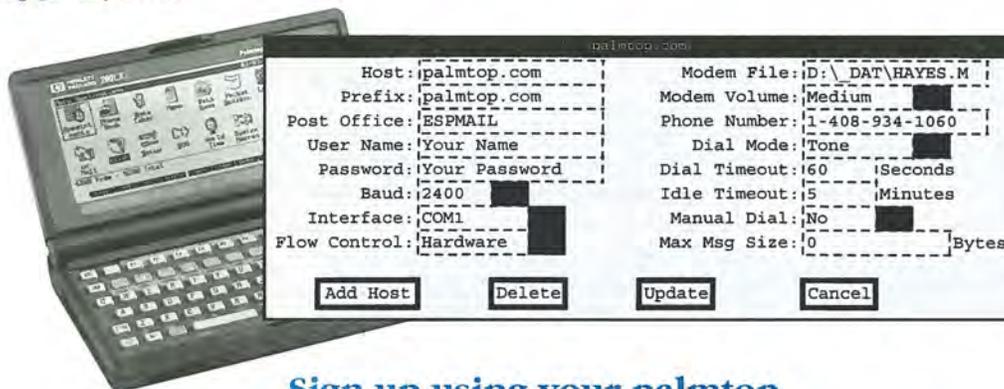
In addition, the 95LX's C directory has a _SYS subdirectory. If you open up FILER you'll see _DAT, but not _SYS. That's because _SYS is a "hidden" subdirectory on the 95LX that doesn't display in FILER as a subdirectory of C:\, but it's still there and you can go to it and view its contents. With the cursor in the C:\ directory press **[F5]** (Goto), type in _SYS and press **[ENTER]**. You should get a listing of the files in the _SYS directory. These files are in permanent ROM. They can be copied elsewhere, but cannot be erased or modified and re-saved to the _SYS subdirectory on the 95LX.

The 100/200LX system files are in permanent ROM on the D drive, which has four directories, including an unhidden _SYS directory. You can view these files in FILER by pressing **[ESC]** repeatedly until you see the listing of drive letters, select [-D-] with the arrow keys and press **[ENTER]**. Again, these files can be copied elsewhere. But because they are in ROM, they cannot be erased or modified and re-saved to the D directory on the 100/200LX.

Global Internet e-mail in the palm of your hand!

If you have an HP 100LX/200LX and a modem, you already have global Internet e-mail in the palm of your hand for only \$9/month! Use the instructions below to get started for FREE.

The palmtop has cc:Mail software built in. Unless you have an employer with a cc:Mail network, dial-in access and an Internet gateway, this powerful e-mail capability is of little use. Now it's easy and inexpensive to bring global e-mail to the palmtop using our dial-up gateway service.



Sign up using your palmtop without obligation by following these instructions:

1. Start the cc:Mail software on the palmtop.
2. Press Alt-C-S (connect Settings) and hit enter.
3. You will see a screen as shown above. Edit the screen (using the TAB key to move to the next field) to update a host similar to that shown here above.

- Notes:**
- Use COM1 interface for serial modem, COM2 for card modem.
 - Post Office must be exactly spelled as shown.
 - Your Name and Your Password are chosen by you. Password must not contain spaces.
 - Dialing the phone number may differ depending from where you are calling.
 - Our modem speeds go up to 14,400 BPS. Your modem may work at high speeds using your own modem file.

4. Press Alt-U to update the host and press<Esc> to return to the main screen.
5. Press F-4 to create a message.
6. Type the name POSTMASTER in the TO: field. In the subject: field, type PALMTOP TRIAL. In the message, include your name, company, mailing address and telephone number.
7. Press F-5 to store the message for sending.
8. Connect your modem.
9. Press F-10, select the palmtop.com host, and press ALT-C (connect). Use the "Copy unread messages option".

If you make the connection and the screen indicates that a message was sent, then congratulations, because you now have global e-mail in the palm of your hand! Within the next business day, your trial account will be activated. When you connect again, your mailbox will be sent a no obligation sign up invoice for \$9, as well as instructions for addressing on Internet e-mail. Payment of the initial invoice will establish the account. After that, billing will be at the start of each month via e-mail at \$9 per month. Your Internet e-mail address is as follows: your.name@palmtop.com

If you have trouble making the connection, call our voice mail number 408-450-3467 and let us know so we can call you back to assist you.

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Spending the time needed to understand these concepts will make your HP Palmtop computing simpler and more effective.

Touch typing on the HP Palmtop

[Note: This tip was condensed from an article by Michael F. Walsh, beginning on page 40 of Vol.3, No.6, 1994. Ed Keefe wrote an excellent article titled, "Living with Big Fingers and an Itty Bitty Keyboard" in Vol.3, No.1, Pg.44. The article gives some good tips on how to get by on the Palmtops' lilliputian keyboard.]

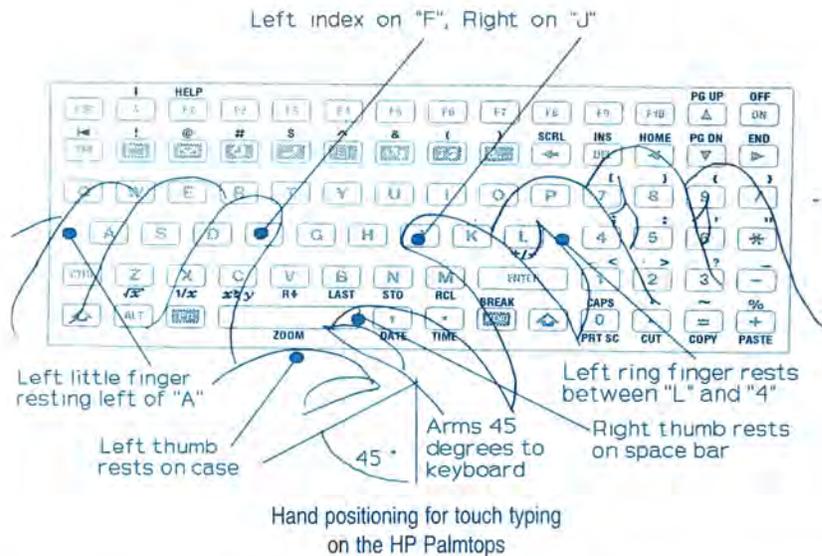
All touch typing on the Palmtop requires is patience, practice, and the strong desire to stop lugging your eight pound laptop computer around. There are three problems with typing on such a small keyboard. The first problem is that many keys are in unfamiliar places. The second problem is that it takes more pressure to activate the keys. The final problem is that most peoples' fingers are too large and crowd the keyboard. Below are a few tips to help you re-learn touch typing on the HP Palmtop.

DON'T BREAK YOUR WRISTS

The angle of each arm should be at least 45 degrees to the front edge of the HP Palmtop keyboard. This allows you to get both hands on the home. To make this technique work you have to find the right amount of "curl" for each of your fingers so that they all rest on the home row as described below. For my size hands, my index fingers have only a slight curl while resting on the "F" and "J" keys. My middle and ring fingers, however, are quite curved. I also keep my right thumb almost fully extended, using it to strike the spacebar. I rest the tip of my left thumb against the front edge of the keyboard to help steady my fingers on the home row.

FINDING THE HOME ROW

You can't touch type on the Palmtop if your hands can't find the home row. The home row has two small gaps among the keys—for the right hand, between the "L" and the "4" keys and for the left hand, between the "A" key and the edge of the keyboard. Learn to rest the ring finger of your right hand in the space between the "L" and "4" keys. This should allow the index finger on your right hand to rest on the "J" key and the middle finger to rest on the right edge of the "K" key. It is



helpful to remember that there are only three keys ("j" "k" "l") on the right side of the home row.

Learn to rest the little finger of your left hand in the space between the "A" key and the edge of the keyboard. This should allow the index finger to rest on the "F" key and the middle finger to rest on the left edge of the "D" key. Your ring finger will probably rest between the "S" and "A" keys, or on the "A" key itself.

MOVE HAND AND FINGER TO REACH KEYS

The idea is to move your hand slightly in order to center the appropriate finger over the key you want to press. For example, in my "home row" tip, the ring finger of the right hand rests slightly to the right of the "L" key. When you want to press that key you have to move your right hand slightly toward the center of the keyboard to bring your ring finger over the "L" key. Similarly, to press the "Z" key, you have to move your left hand toward the center of the keyboard and down a little so that your little finger is over the "Z" key. Unless your fingers are large, you'll find that the distance you have to move your hands is very small.

PRACTICE MAKES PERFECT

Make a short list of the words you feel most comfortable typing—words that almost pop out of your fingers before you think about them. For me those words are "the," "that," "would," "first," and other short, commonly used words. Type those words over and over again on the HP Palmtop until you start to get the feel for the small hand and finger movements

necessary. (You can also use freeware TYPER  to practice.)

Once these words start to feel comfortable, the keyboard will come together for you. Good luck!

Michael F. Walsh
CompuServe ID: [72356,3424]

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Many Ways to Back Up Your Files — and Many Ways to Lose Them!

Read this and obey! The frustration you avoid not having to re-enter lost files will pay for your subscription many times over!

By Hal Goldstein

[Note: The following is excerpted from an article on page 57 of Vol.1, No.6.]

The real Palmtop expert develops a systematic procedure to back up data frequently. If you don't back up the information you generate on your HP Palmtop, it's only a matter of time before you lose something.

How can I lose my work, let me count the ways ...

The purpose of this section IS to scare you! If you do not understand some of the concepts presented here, reread previous *HP Palmtop Paper Getting Started* columns, check your manual, ask a friend, or purchase a basic book on computers.

Here are some of the ways you can lose information on your HP Palmtop through your own folly.

1. On the 95LX: You do not save or update your MEMO, APPT, PHONE, 1-2-3, or HP CALC file when you exit the application normally, or when your system locks up and you must reboot (by pressing **CTRL-ALT-DEL**).
- 100/200LX applications except Lotus 1-2-3 and MEMO save files automatically.
2. You lose all battery power (for example, by leaving your HP Palmtop idle for a long time or by ignoring the bad or missing backup battery message).
3. You save a file using the name of a file that already exists. The initial file is overwritten and lost.
4. When trying to save new work, you run out of disk space and have nothing you can delete from FILER.
5. You delete a file by mistake.
6. You lose or damage your HP Palmtop.
7. You forget what you named a file and in what directory you put it.
8. You let your RAM card battery run out.
9. You inadvertently remove your RAM

card battery.

10. You lose or remove the "device driver" files that allow you to access your ACE DoubleCard, Stacked RAM card, or SUNDISK Flash Card (on the 95LX).
11. You reformat your RAM card.
12. You accidentally format your C drive after performing a hot reboot.
13. You let someone mess around with your HP Palmtop.

Here are some more ways that the Palmtop itself, or software running on it, can cause you to lose information.

14. Bugs in built-in or DOS programs.
15. Bugs in the Palmtop's firmware or hardware.
16. Running DOS programs or TSR's not designed with the HP Palmtops in mind.
17. Exiting programs incorrectly.
18. Exposing your Palmtop or RAM card to a very strong electromagnetic field.
19. Exposing your data to a virus.

Backup solutions

Even though Palmtops are handy at storing and manipulating data, it only makes sense to use one if you regularly (hourly, daily, or weekly) back up all important information.

RAM card backup strategies

The optional RAM card provides an easy means to backup your most critical C drive work. However, remember that the RAM card itself needs to be backed up. Even Flash cards that are not dependent on batteries to maintain their memory, can become corrupt.

Time Stamped Backup Macro for the HP 100/200LX

Most macros used for backing up the C:\ drive, copy files to the same target directory each time they are executed. With this approach, today's backup overlays yesterday's. This conserves space on the target device, but also allows the possibility of overwriting a good version of a file with a bad version.

One way to avoid overwriting backups is to keep multiple generations of the backup directory. The following System Macro makes use of the HP 100/200LX's Date stamp feature (press **F7-F10**) to create a unique backup directory each time you use the macro. The directory name is of the form BKCMM-DD, where BKC is constant, MM is the month in numeric form, and DD is the numeric day. Because the directory name will include the creation date, as long as backups are created only once per day, each new backup will have a unique name. After the macro has run successfully a few times, delete the oldest backup.

The macro is listed below in a step-by-step fashion to enhance understandability. Indented on the line below each macro code is a comment describing what the code does. The system macro should be entered as a single contiguous string, without the indented comments or returns.

```
{More}{Menu}AL
  Close all applications
{Setup}{Menu}OD
  Open Setup Date Time function.
{Tab}{Tab}
  Go to Date format Box
{Down}{Down}{Down}{Down}{Down}{Down}{Down}{Down}{Down}{Down}{Down}{F10}
  Move cursor to MM-DD date format and then confirm
{Menu}Q{Filer}
  Quit Setup, Start the Filer
{F5}C:\{Enter}
  Goto the Root directory on the C Drive
{Menu}FB
  Start the Backup utility
A:\BKC{Date}
  Build new directory name with the Date function
{F10}{F10}
  Confirm settings and directory creation
```

Note: Prior to the execution of the macro, FILER's **MENU** File Backup function should be set up as follows (this needs only be done once):

1. Include — check **All directories and files**.
2. Leave **Modified files only** box blank so that all files will be backed up.
3. Leave **Overwrite existing files** box blank, the macro should never overwrite files.

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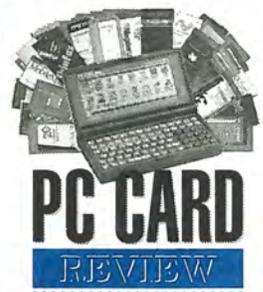


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BACK ISSUES AVAILABLE

1. Use FILER to copy crucial files such as main PHONE and APPT books, key spreadsheets to the A drive RAM memory card. (Remember the HP Palmtop's built-in applications normally store files in the C:_DAT directory or in the case of 1-2-3 the C:\ directory on the 95LX.)
2. Purchase a RAM card drive. These drives connect to a PC and allow it to read a memory card. To back up files first copy the desired files from the Palmtop to the memory card. Then put the RAM card in the RAM card drive and copy the files to the PC's hard disk or floppy disk using DOS Copy commands from the PC.
3. On the HP 100/200LX, create a nightly appointment that automatically runs a backup batch file (see example on page 7).

PC backup strategies

4. Purchase The HP Connectivity Packs (CPACK95, part #: HP F1001A; CPACK100/200, part #: HP F1021B, international HP F1021C). Use the Pack's cabling. Then follow instructions to backup files from the Palmtop to the PC using the FILER program on both computers.
5. Connect the Palmtop to a PC and run DOS Connect from the HP 95LX Connectivity Pack on both the 95LX (DCS95) and the PC (DC95). DCS95 will also work on the 100/200LX. The 100/200LX Connectivity Pack includes a similar program, LapLink Remote, that connects with the 200LX's built-in LapLink. (LapLink Remote can be copied from the Connectivity pack software to the 100LX.) These make the Palmtop disks directly accessible from the PC. (They appear to the PC as additional disk drives.) Use the DOS COPY or XCOPY commands, or a file management program on the PC to backup up the Palmtop's files to the PC.
6. MAC users can purchase the DataViz or Sparcom, Mac-to-HP Palmtop connectivity programs.
7. Windows users can use IntelliLink or Sparcom Connectivity programs.
8. Purchase the HP F1015A PC Connectivity Cable or the HP F1016A Cable for the MAC. Use communications software on the desktop and built-in COMM on the HP Palmtop. Use X-MODEM or KERMIT protocol.
9. Connect Palmtop and PC with the HP F1015A PC Connectivity Cable and run the ZIP.COM  communications

program on both PC and Palmtop.

If you only have an HP Palmtop

Because of the dangers cited previously, even if you do not own another computer or a RAM card you should develop backup strategies that employ a combination of the items listed below.

10. Create duplicate copies of your Phone Book, Appointment Book, and other important files. Use FILER to copy these files to a different directory on the Palmtop. If the original file gets corrupted or accidentally deleted, you've got a backup.
11. Purchase an HP F1015A PC Connectivity Cable and a high density floppy disk. Make arrangements with a friend with a PC to borrow it for 10 minutes per week. Use one of the methods described above to back up files to the floppy.
12. Purchase the HP F1023A Connect/Adapter Kit, along with the HP F1015A PC Connectivity Cable. Borrow a printer from a friend to create a "hard copy" of each of your most important files. You can print from

your friend's PC. If the printer has a serial port, you can print directly from the Palmtop to the printer using the cabling described above.

Similarly, borrow a friend's modem and connect it using the above cabling. Use built-in DataComm to send key files via a phone line to a PC with a modem and communications software running.

13. Purchase an external 3.5" floppy drive designed to work with the Palmtop, such as the Sparcom's Drive95 or Drive100 and Accurite's Travel Floppy 144. Backup Palmtop files to a floppy disk using FILER.

Conclusion

If you are a complete novice (we all were at one time), make backing up your files a priority. Grab a computer-literate friend, study back issues of *The HP Palmtop Paper*, read the manual ... do whatever it takes to develop a practical, consistent backup strategy.

Don't let a few months without data loss problems lull you into complacency. Backup your data now and develop a procedure for regular backups.



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Powering Your HP Palmtop

⊕ Adapter

95LX 100/200LX

Don't fry your 100/200LX with a 95LX power adapter!

The new HP 100/200LX adapter (HP F1011A, \$39.95) works with both the 100/200LX and the 95LX. However, the original AC adapter for the 95LX (HP 82222A, \$35) does not work with the 100/200LX and can damage it! The original 95LX adapter provides a 9 volt AC output, which can damage the 100/200LX. The 100/200LX adapter provides a 12 volt DC output, which the 95LX can accept.

Everett Kaser
CompuServe ID: [70662,2540]

100/200LX

Don't insert memory cards when charging the 100/200LX!

The 100/200LX stays on when charging batteries. This is because the charging circuit is controlled by software, and the CPU needs to be running while charging. HP advises that you not insert RAM cards while the power is on. If one's in the slot, fine. But don't insert another one while you're recharging your batteries.

David Shier
CompuServe ID: [75030,3374]

⊕ Batteries: A-Z

[Note: The tips in this section apply to all HP Palmtops, unless otherwise indicated. Most of the section on batteries was condensed from an article by Stanley Dobrowski, beginning on page 37 of Vol.3, No.1, 1994. Additional tips from the following authors have been combined with this article: Ed Keefe, Dave Snellard, David Hamachek, Rich Hall, HP Mobile Computing support, Mark Scardina, Jim Cummiskey, Michael Allgood, Ted Dickens, Fred Kaufman, Gary Fischman, Jan van Straaten, and other CompuServe members.]

The HP Palmtop's portability and functionality have made it an indispensable part of our lives. The ability to store large amounts of contact information, appoint-

ments, spreadsheets, and other data is simply amazing. And the (however slight) possibility of losing all that precious data if your batteries die before you can change them is simply frightening! A basic understanding of battery technology along with knowledge of battery types available for the HP Palmtops can save you hours of work and help eliminate that queasy feeling that accompanies a low battery warning.

The main power to the HP Palmtops is supplied by two AA batteries. There are two types of AA batteries available on the regular consumer market: **Primary** and **Rechargeable** batteries. Primary batteries are designed to be used once, then discarded. They are not rechargeable because the chemical process that produces the electricity is not reversible. Rechargeable batteries are designed with a chemical process that is reversible. The process that takes place when power is drawn from the battery, eventually runs out just like a primary battery, but when the battery is placed in a charger and electricity is fed into the cell, the chemical process is reversed and the battery can be brought back up to full capacity again. Please see the "Battery Summary Chart" on this page for a comparison of the different types of main batteries.

The backup battery is found in a special holder under the infrared port cover. The 3-volt Lithium backup battery supplies power to the memory inside the Palmtop if the main batteries fail. This battery should last for about one year before it needs to be replaced. However, if main batteries die and the computer has to go into "backup mode", the tiny button battery can become drained quickly. It is a good practice to set an alarm or event in the Appt application for every 10-12 months as a reminder to change this battery. The backup battery product code number is CR-2032 which is available in many department, camera, drug and electronics stores. The instructions for changing this battery are described in the User Guides (Appendix A of the HP 95LX and 100LX User's Guides and appendix B of the HP 200LX User's Guide).

HP 95LX Battery Requirements

The HP 95LX is designed to be used with alkaline batteries and that is the only kind HP recommends. The built-in bat-

tery voltage sensing circuitry and software was designed for the alkalines, not for lithiums, NiCds or NiMHs. These other batteries die quickly at the end, and the 95LX's low battery detection may not catch them in time. This can result in a loss of data.

Another important consideration is the reverse voltage protection in the 95LX. This was designed for alkaline batteries. The electronics which protect the 95LX may burn out if you insert rechargeable batteries in backwards. If

Battery Summary Chart

Primary (non-rechargeable) main batteries

- Higher capacity
- Can be used once (many discarded batteries a source of greater pollution)

ALKALINES

- Many manufacturers
- Very inexpensive
- Available everywhere
- Gradual discharge voltage curve
- Easy to predict percent used and available capacity

LITHIUMS

- Very high capacity (2-3 times alkalines)
- Expensive
- Only one manufacturer
- Limited availability
- Flat voltage discharge curve with sudden drop off
- Long shelf life
- Perform well in cold

Rechargeable main batteries

- May be recharged and re-used more than 500 times (fewer discarded batteries, less pollution)
- Flat discharge voltage curve with sudden drop off
- Require a charger

NICKEL CADMIUM

- Available in most stores which have a large battery selection
- Contain cadmium which is a disposal problem
- Most can exhibit memory effect
- Low internal resistance which allows high current draw
- Not very expensive
- Some models may be quick charged

NICKEL-METAL HYDRIDE

- Higher capacity than NiCd's (up to 2 times)
- No memory effect at all
- Expensive
- Limited availability

RECHARGEABLE ALKALINE

- Long shelf life after charge.
- 95/100/200LX built-in battery monitoring software set to alkaline and should work with these.
- Limited number of times you can recharge.
- Need to buy special recharger.

you use rechargeables, extreme care must be taken when inserting them. I double and triple check the batteries in my hand against the legend in the battery case before putting them in.

BATTMAN FOR THE 95LX

To compensate for the simplistic battery monitoring method in the 95LX, ACE Technologies has a TSR program called BATTman that watches the battery voltage over time and monitors usage hours of the Palmtop in a sophisticated algorithm to predict when the batteries will be spent. BATTman has settings for alkaline, lithium, nickel cadmium and nickel-metal hydride batteries with a different algorithm for each battery type. I consider this program required if anything other than alkalines are to be used in the 95LX.

HP 100/200LX battery requirements

The HP 100/200LX was designed to accommodate both alkaline batteries and NiCd rechargeable batteries. There are electronics and software to allow NiCd's to be recharged inside the 100/200LX, even while it is being used. It is very important to have the battery type set correctly in Setup (press **CTRL-FILER** Options **Battery**).

The built-in circuit that protects against backward insertion of batteries appears to be able to handle the higher-impedance rechargeables, but HP does not recommend using any batteries other than alkaline and NiCd in the 100/200LX. I and other users have successfully used lithiums, nickel cadmium and nickel-metal hydrides in the 100/200LX without any problems.

BATTERY MONITORING SOFTWARE FOR THE HP 100/200LX

ACE Technologies also markets BATTman 2.0 battery monitoring software for the 100/200LX. In addition, there is a freeware program by Mark Scardina in the CompuServe HPHAND forum, library 11, called BAT100.ZIP . This program will display the main and back-up battery voltages and the good/bad status of the memory card battery, allowing you to change or charge batteries at the appropriate time. I usually do not let the main battery voltage fall much below 2.45 volts before I recharge my batteries. I always like to have some reserve capacity available in case I get caught without a charger or an extra set of batteries.

MacLinkPlus/ HP Palmtop



Mac



HP Palmtop

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Backup your entire Palmtop on your Mac - with just a click of a mouse! MacLinkPlus will move all of your Palmtop files onto your Mac. The directory structure will remain the same on the Mac as it was on the HP.

Don't retype all those names...

MacLinkPlus can translate your phone book files onto your HP. No need to retype all that information! And you can translate your HP Phonebook names back into your Mac phone book as well.

No excuses for missed appointments...

Appointment book alarms don't do good if you're not at your desk to hear them. With MacLinkPlus, you can convert your Mac appointment book files (such as, Now Up to Date or DateBook Pro) into the HP Appointment Book format. Now your appointments - and your alarms - will be on the road with you where they belong.

Manage your notes...

Take Memos from your Palmtop and convert them into Mac word processing documents (such as, Microsoft Word, ClairisWorks, etc.) Your formatting such as bold, underline, etc. will remain intact. You can also convert word processing files from your Mac into HP Memo files.

Don't leave your numbers behind...

In addition to PIM and Memo translations, MacLinkPlus can also convert your Mac spreadsheets into Lotus 123 format on your HP. Formatting and formulas all remain intact. Once you've made changes on your Palmtop, you can convert your file back into Mac format!

Databases, too...

Use your HP databases in FileMaker Pro, Microsoft Works database, and other Mac database programs. All of your data and its formatting, such as, date and time will be translated.

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Another program, BATSET.COM [F], will allow you to adjust the charging time for batteries being recharged in the 100/-200LX. BAT95.EXE [F] will display battery voltages on the 95LX.

Battery Comparison Table

Battery Type	Capacity /mhr	95LX Avg Life	Cost /pair	Cost /hour
Alkaline	2200	30 hr	\$1	\$.03
Lithium	3300	52 hr	\$5	\$.10
NiCd	600	12 hr	\$6	\$.001
NMH	1100	22 hr	\$18	\$.002

This chart represents a summary of informal battery tests on the HP 95LX. Capacity is rated by the manufacturer in milliamp hours (mhr). A rating of 2200 mhr means that a device operating on an average of 2200 milliamps would deplete the batteries in one hour.

Most manufacturers consider batteries "dead" at a lower voltage than the 2.0 volts the 95LX's low battery warning is set to. This means that the actual battery life you get in the 95LX is about 70% of what you would expect based on the battery's milliamp hour rating.

Mark Scardina [Sysop]
CompuServe ID: [76711,732]

How to extend battery life

Here are some of the more important ways you can extend the life of your batteries – and save money:

■ **Leave your Palmtop connected to the AC adapter whenever you can** – This is particularly important when you are doing calculations, searches, copying files, or other CPU intensive operations, which keep the CPU active and use up the batteries.

■ **Remove all high-current plug-in cards** (i.e. modem cards, not memory cards) – when you are not using them. These cards can drain batteries quickly, even when you're not using them. When you are using these cards, connect up the AC adapter whenever possible.

■ **Use rechargeable batteries in the 100/-200LX** – To enable NiCd recharging in the 100/200LX, go into Set Up and press [MENU] Options Battery, highlight Nickel Cadmium, and press [F10] (OK). Whenever you connect your 100/200LX to the HP F1011A adapter your NiCd batteries will be recharged automatically. DO NOT enable NiCd recharging if you have any other type of battery in your 100/200LX.

You cannot recharge batteries in the 95LX, but you can use rechargeables to power the 95LX. However, the 95LX's internal battery logic is set up to monitor alkalines, and low battery warnings are not accurate. If you use NiCd's or other non-alkaline batteries in the 95LX, you should also use third party battery monitoring software like BATTman from ACE Technologies, to monitor them.

■ **Graphics intensive programs use up batteries** – Graphics intensive programs like Tetris (TETRIS [F]) use batteries at a rate of more than four times the built-in applications. This is because they bypass the light sleep mode. You should never leave a graphics-intensive program like TETRIS running when you turn your HP Palmtop off for a period of time.

■ **Turn off the Palmtop when you are finished using it** – The HP Palmtops are set to power down in three minutes if a key is not pressed. If you're like me, most of the time you turn your Palmtop on and key in a quick note or an appointment. If you leave your Palmtop on, you waste three minutes of battery life. Also, if you are running in DOS mode, the serial port is powered on. You can execute the SERCTL /O command in DOS to force the serial port off. Check your User's Manual for details on these options. A number of programs give the user control over power to the serial port (see 95BUDDY[F], TIMEOUT. ZIP[F], HP-95CT.ZIP[F], ASERCL.ZIP[F]). An active serial port uses battery power. Shut it down when not in use.

Other Important Advice

1. Do not take the "Low Battery" warning lightly.
Depending on the type of battery installed, there may be minutes or seconds of computing time left in the main batteries. Either stop working and shut off the Palmtop or plug it into an AC power pack to continue working. Allowing the Palmtop to go into "backup mode" because the main batteries die can result in data loss and a drain on the backup battery.

The HP 95LX can develop a problem that causes it to continuously show the MAIN BATTERY LOW warning, even after installing fresh batteries. Try running BATT95 [F] from the 1993 Power Disk to correct the problem. If this fails, you're experiencing a hardware problem. Contact HP Mobile Computing Support at 503-715-2004 for help.]

2. Be careful changing batteries.
Close all open applications, turn the HP Palmtop off, and close the case. Remove the main battery cover and install two fresh AA batteries, orienting them as shown in the battery compartment. Remove the backup-battery cover and pull out the battery tray. Insert a fresh, 3-volt CR-2032 coin cell. Be sure the plus (+) sign on the battery is facing down in the tray. Insert the battery tray back into the HP 100/200LX and replace the cover.



Infrared Printing From Your HP 100 and 200LX

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Turn the unit on.
You should never just yank the batteries from the 95/100/200LX to get it back from oblivion. If the warm boot (press [CTRL]-[ALT]-[DEL]) does not reboot the machine, then use the hard reset (press [CTRL]-[SHIFT]-[ON]) and answer No when asked if you want to "Initialize RAM disk?" The hard reset will always work and does not risk data loss or put a strain on the backup battery like pulling the AA's does.

Remember, the Palmtop must be either turned off or plugged into an AC power pack when the main batteries are pulled out. In addition, do NOT remove the main batteries at the same time as the backup battery. The backup battery provides the power to maintain RAM disk memory. If you take both main and backup batteries out, all of your internal RAM memory will be erased. As added insurance, you can leave the HP Palmtop plugged in to the AC power supply while changing batteries.

3. Changing a SRAM card battery.
The newer Flash memory cards do not need a backup battery, but older SRAM cards do. Make sure that your RAM card is being powered by the Palmtop while you make the battery change or you may lose all your data.

When the RAM card is in the card slot and the Palmtop is switched ON, the card is powered from the Palmtop's main cells or AC adapter (if connected). Connecting the Palmtop to the AC adapter disables the auto-shutoff feature and gives you all the time you need to change the battery.

If you don't have access to AC power when you need to change the battery,

you have three minutes before the Palmtop powers down and cuts the power to your card. You can press a key every minute or so to keep the Palmtop from powering down. You can also disable the auto-timeout by using SWITCH! or 95BUDDY  BUDDY 2.0 , or TIMEOUT.COM .

Slide the lock lever at the end of the card to the unlock position and remove the little battery tray. Pop the battery out and replace it with the proper back up battery (a 3-volt CR-2025 coin cell for HP cards). Make sure the positive (+) side of the battery is sitting up in the tray. For more on changing card batteries, check your *User's Guide*.

5. NiCds best rechargeable solution.

The best solution for rechargeables would probably be the Radio Shack Hi Capacity NiCd batteries. They can be charged right inside the 100/200LX but would have to be swapped out of the 95LX so that they can be charged in an external charger. There is a somewhat higher initial cost for the batteries and the separate charger if needed for the 95LX, but in the long run that will pay off because there can be hundreds of charge/discharge cycles for a single pair of batteries.

6. Overnight charge once a week is all that's needed. The convenience of the built-in charging capabilities of the 100/200LX cannot be understated. Every weekend, I leave the unit plugged in overnight to charge the batteries. I never have to worry about a thing. (Note: HP 95LX users have reported success using NiCds. A popular technique is to have two sets of rechargeables – one set in the 95LX and one set in the recharger. Then set a recurring alarm in APPT to remind you to swap them every weekend.)

7. It's possible to charge NiMH batteries in the HP 100/200LX

I use NiMH (Nickel Metal Hydride) batteries and charge them in the HP 100/200LX, using BATSET  to set the high charge time to 14 hours. This gives me more than 20 hours of life for the HP 100/200LX, or about a week's usage.

8. Battery tips for the Palmtop traveler

Here are some battery tips for Palmtop users who find themselves on the road for extended periods of time:

- Bring extra batteries, especially if you'll be in out of the way places. Eveready's long-life lithium AAs are more expensive, but last longer so you won't have to carry

as many.

- Bring extra backup batteries. The coin-sized backup battery (3-volt CR2032) is more difficult to purchase abroad than the main AA batteries. It's supposed to last 10 months, but if your main batteries die, you can drain it fast.

- Consider rechargeable AA main batteries and a solar-powered recharger. This is especially advisable if you are in really primitive conditions away from electrical outlets. Solar chargers are available from a number of sources, including CampMor (201-445-5000). Bring an extra set of NiCd AAs and keep one set charging all the time. Bring some regular AA's just in case you run out of sun.

9. Cold kills Palmtop batteries

Don't leave your Palmtop out in the cold for extended periods of times. One user left his Palmtop out in the glove compartment of his car on a cold, below-freezing weekend. The next time he tried to turn the Palmtop on, he got a faint screen, warnings of low main batteries and low backup battery, and discovered that the C: drive was erased, but the files on his RAM card were untouched. Fortunately,

he backed up his files daily and was able to re-install everything quickly.

Lithium batteries generally perform very well in the cold, that is why they are used in flashlights for winter camping trips. The RAM card above survived because it used a lithium backup battery. The Palmtop's backup battery is also a lithium, but when the main batteries failed the backup battery could not maintain the C drive for the entire weekend. It might be better to use Eveready Hi-Energy Lithium Energizers as main batteries if you're going to expose your Palmtop to prolonged cold.

10. Check your 100/200LX battery configuration after a cold boot

The battery configuration (alkaline vs. NiCd) is reset to default (alkaline batteries) when you press **CTRL** - **←Shift→** - **ON** to reboot. If you're using NiCd batteries, the power detection circuitry will read the wrong battery type and give you inaccurate battery readings. Also, battery charging will be disabled. You will have to go into Set Up, press **Options** **Battery**, and select Nickel Cadmium so that you'll get the correct battery readings and be able to recharge your batteries.

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Behind the Scenes

95LX

Rules for setting up your HP 95LX

■ **WARNING:** When creating a CONFIG.SYS file with the command: **SHELL=COMMAND /P** make sure there is a space between "command" and "/p" (otherwise, your 95LX will lock up).

■ When entering any DOS commands in batch files, including AUTOEXEC.BAT, always use upper case for the drive and path. (This is a peculiarity of the 95LX.)

```
PATH=C:\;C:\_DAT;A:\DATA
```

■ If you use a RAM card, store your CONFIG.SYS and AUTOEXEC.BAT files on it. That way if you have a problem, you can reboot without the card.

■ If you use an AUTOEXEC.BAT file, to invoke SYSMGR, make the last three lines read as follows:

```
PATH=(your path in upper case)
PAUSE
$SYSMGR
```

This allows you to exit to DOS with **CTRL-C** at the prompt if you have a problem. The PATH command should always be the last environment statement to allow your hotkeys to work properly.

■ For maximum security your data files should reside on your A drive. By using the proper extension, APPT - .ABK, PHONE - .PBK, and MEMO - .TXT and keeping these files in one subdirectory (say A:\DAT), you can use the following CHAR User Key to get a listing of files for each application:

```
(MENU)FO{BACKSP}{BACKSP}
{BACKSP}{BACKSP}{BACKSP}
{BACKSP}{BACKSP}{BACKSP}
{BACKSP}A:\DAT\{ENTER}
```

■ If you run APNAME.LST programs from the A drive, keep a separate file A:\APNAME.LST. Don't include A drive programs in C:_DAT\APNAME.LST.

■ If you run a number of DOS programs, you should change your 95LX's CONFIG.SYS file to: **SHELL=COMMAND /E:512 /P** leaving a space before each "/".

■ Before modifying CONFIG.SYS or APNAME.LST and AUTOEXEC.BAT always backup your files.

■ Do not use a compression utility on an .EXM file unless that utility runs as a

TSR. STACKER and DIET **F** (when resident) are OK, PKLITE is not.

■ Keep COMM closed when not in use as it saves 30% of your battery life. (The same is true for FILER on the original 512K 95LX's released before the 1MB upgrade.)

■ If your 95LX stops working and **CTRL-ALT-DEL** does not work, try **CTRL-Shift-ON** and answer No when asked if you want to initialize the disk.

■ You can save your User Keys and owner information by making a backup of SETUP.ENV. If you need to re-initialize the 95LX, restore your settings as follows:

A. with an attribute program such as DOS ATTRIB.EXE or FATR.COM **F**, change the read-only status of the new SETUP.ENV;

B. delete it and copy your backup to C:_DAT. Reboot to restore your settings.

Mark Scardina

CompuServe ID: [71551,467]

95LX 100/200LX

File Compression with DIET

DIET.EXE **F** (freeware) can as much as double your available file space. To gain full advantage of DIET.EXE it needs to be memory-resident, installed into the DOS startup AUTOEXEC.BAT file. That way all data files (i.e. 1-2-3 .WK1 files, MEMO .TXT files, HP Calc .EQN files) are automatically compressed. DIET does not have to be memory-resident as described above if it is used only to compress EXE and COM files.

Detailed descriptions of how to use DIET 1.22 **F** along with potential pitfalls can be found in the Fall '91 issue page 17 and on page 20 of the Jan/Feb issue and in DIET95 .ZIP on the CompuServe HP-HAND forum. We recommend using DIET 1.22 available on *Best Palmtop Tips ON DISK*, as users have reported problems with later versions and DIET 1.22 is known to work well. A new version has just been released, DIET 1.45A **F**. One user has had success in using it on the 100/200LX. DIETONHP.ZIP **F**, included on *Best Palmtop Tips ON DISK*, will contain all available information on using these versions of DIET on the 95LX and 100/200LX.

Hal Goldstein

95LX 100/200LX

Topcard reward screen

Misplacing the Palmtop is an ever present worry. If it happens, you want to encourage its return. Where better to do that than on the topcard, one of the first things a person sees when they turn on a Palmtop. On the 95LX under SET UP, select **O**wner. On the 100/200LX press **&** Setup **M**ENU **O**ptions **O**wner. Then enter the following:

```
Name: <Your Name>
Title: RETURN FOR REWARD!
Company <Your phone number>
```

Gary Oliver

Milsons Point, NSW, AUSTRALIA

95LX 100/200LX

Optimum RAM disk / system RAM size

In general, if you have a lot of data and only use the built-in applications, set the System RAM at the minimum needed to run the applications (about 250K-300K). That way you have the largest possible RAM disk to store text, data, and configuration files. However, if you keep a number of your built-in applications open at the same time, you may need to set up more System RAM.

If you run DOS programs that require lots of System RAM, and have very little data to store on the C drive, set the System RAM as high as you can (394K for the 512K 95LX, 626K for the 1MB 95LX, and 636K for the 1MG & 2MB 100/200LX).

If you work with large Lotus spreadsheets, you'll need a lot of System RAM to load them into 1-2-3.

Finally, if you use a memory card for file storage, you can probably set the System RAM high.

There are a multitude of gradations between the extremes, so you may have to experiment to find the right balance.

Frank Nagle

CompuServe ID: [71140,1253]

95LX 100/200LX

Creating special characters using **CHAR** and **ALT**

HP 95LX

You can create special characters on the 95LX using the CHAR key by pressing and releasing **CHAR** once, and then pressing a keyboard key to access its alternate. For example, you can press **CHAR** **L** to produce £ (British Pound symbol).

You can also create a special character on the 95LX by holding down **[ALT]** and entering a 2- or 3-number character code. For example, press **[ALT]-169** to create a ® (Registered symbol). An alternate key map for the 95LX is found on page E-3 of the *HP 95LX User's Guide*. A keycode table is found on page E-2.

HP 100/200LX

Creating special characters on the 100/-200LX is a little different. Press **[Fn]** and a letter to access the alternate keys on the keyboard. Press and hold down **[ALT]-[MENU]** and then key in the character codes. An alternate key map for the 100LX is found on page B-4 of its *User's Guide* and C-4 of the 200LX's. The keycode table is found on page B-2 and C-2 respectively.

*Bil. Alvernaz
MCI MAIL #207-8825*

95LX

"Hard reset" bug corrupts C drive files on HP 95LX

When all else fails in curing a 95LX problem such as system lockup or serial port not working, you can do a hard reset on the HP 95LX by pressing **[CTRL]-[Shift]-[ON]** (answer No to reformat question). However, due to a 95LX bug, this may corrupt one of your built-in C drive files or subdirectories. If a file gets corrupted, you will get an "I/O error" message when trying to read it.

The problem may or may not occur depending on where files happen to be located on the built-in RAM disk. The problem will not occur on 1 megabyte units with a RAM disk size of 512K bytes or less.

One way to test for corrupted files is to enter DOS and copy them to nowhere using the **copy *.* nul** command. (The DOS CHKDSK command will not detect the error). If no errors occur, your files are all right.

*Dave Goodman
CompuServe ID: [72330,130]*

95LX 100LX

Password protect the HP Palmtops

A system or global password is a password that lets you protect the entire machine by requiring the password when the Palmtop is turned on. You can set a system password for the HP 95LX and the HP 200LX. There is no built-in system

password for the 100LX, but the registered version of BUDDY 2.0  adds a global password feature.

If however, you forget your Buddy password, there is a way around it, which means it does not provide absolute security.

On the HP 95LX and 200LX:

To specify or change the password on the 95LX: close all open applications (press **[MENU]** Quit). Start FILER, press **[MENU]** System to go to DOS, type **password** at the DOS prompt and press **[ENTER]**.

On the 200LX: go to DOS (press **[&...]** DOS) and at the DOS prompt type **password** and press **[ENTER]**.

On both machines you are asked to enter and then verify the password. After you've entered a password, you can activate it in one of two ways:

- **Auto-lock mode:** Password protection is there whenever you press **[OFF]**, reboot the system, or the 95/200LX automatically shuts off. You must enter the password when you turn it on again.

Activate Auto-lock mode from the DOS prompt by typing **password /a** prompt and pressing **[ENTER]**.

- **Manual-lock mode:** Password protection is there only when you press **[ALT]-[OFF]** to turn the 95LX off or press **[ON]-[ENTER]** to turn the 200LX off. This is the default mode on the 95/200LX. If you have implemented Auto-lock mode on either Palmtop and want to go back to Manual-lock mode, type **password /m** from the DOS prompt.

You can deactivate password protection by typing **password /d** from the DOS prompt, but you'll be prompted to enter the password to do so. The password is case sensitive, so use capital and lower case letters just as you entered them.

Warning - remember your password!

If you forget it, on the 95LX you'll have to take out the main and backup batteries to re-initialize the 95LX, and you'll lose your data. STATUS.ZIP  can help recover your password on the 95LX if you have not powered down.

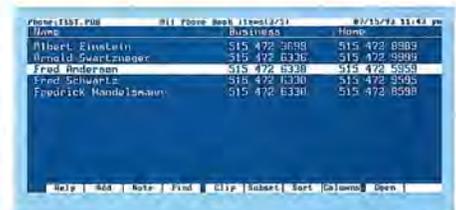
On the 200LX if you forget your password you will have to call Hewlett Packard technical support with proof of ownership to recover it. If they can't help then you'll have to pull all the batteries and re-initialize, losing all your data. Keep good backups!

*Robert Roney
Editor, HP Palmtop Paper
Mark Scardina*

95LX 100/200LX

Reverse screen, change contrast to see better

In low light conditions, when you're having trouble seeing the 100/200LX display, press **[ON]-[7]** and the screen will switch to white letters against a black background. This is also useful in PHONE when you've highlighted the name of the person you want to call. Press **[ON]-[7]** and the highlighted entry becomes black characters on a white background, standing out from the rest of the dark screen.



100LX screen reversed in PHONE

You can change screen contrast on either the HP 100/200LX or 95LX by pressing **[ON]-[4]** or **[ON]-[3]**. Pressing **[ON]-[4]** or **[ON]-[3]** on the 100/200LX also changes grey scales in DOS applications with CGA displays.

*Rich Hall
Editor, The HP Palmtop Paper*

95LX

Adding System-Manager compliant programs on the HP 95LX

The HP Palmtop's System Manager lets you switch from one built-in application to another without having to close the first application. For example, if you're in a spreadsheet and need to check an appointment, you can do so without losing your place in the spreadsheet.

System-Manager compliant programs are written especially to take advantage of the System Manager's capabilities. A feature not documented in the 95LX User's Guide is that you can install additional System-Manager compliant software in the 95LX by creating or modifying the APNAME.LST file. More complete instructions for installing System-Manager compliant programs are found in an article by Hal Goldstein (Vol.1, No.1, Pg.18) and one by Mark Scardina (Vol.1, No.2, Pgs. 9-10).

*Mark Scardina [Sysop]
CompuServe ID: [76711,732]*

Built-in Applications

&... AppManager

Adding DOS or System-Manager compliant programs to the HP 100/200LX using Application Manager

The HP 100/200LX Applications Manager lets you open built-in applications and easily add up to a total of 38 DOS or System-Manager compliant applications to your 100/200LX. For specific instructions on adding DOS or System compliant programs to AppManager, see "adding applications" in the index of the *HP 100/200LX User's Guides*. There also is an excellent article on AppManager by Mark Scardina, found on page 40-43 of the Sep/Oct 93 issue of The HP Palmtop Paper. Here are a few points from that article:

- Up to 38 applications can be launched from AppManager. Up to 21 of these may be DOS programs.

- When entering the name of the application, precede any character in the Name field with the "&" symbol and that character becomes the launch key for that program. You should exercise care in selecting start-up characters. Many of them are already taken for the built-in applications and there appears to be no way to edit the Name field in a built-in application. If you use the same startup character in two or more applications, AppManager starts the first application in the list with that letter.

- If there is not enough System RAM specified in SET UP, the program you add to AppManager will not launch. Fortunately you can add a | symbol (press **[Shift]-[|]**) to the end of your Path line to over-ride the Setup allocation. If you use a | without any thing else following it, your DOS program will be given all available System RAM memory. By adding a number to the end, such as |200, you can specify the exact amount of KBytes of System RAM to be given to an application.

Determining the correct figure may take a bit of trial and error. Don't cut it too close because some programs behave erratically if they are working at the memory limit. [If you routinely use DOS

applications on your 100/200LX, spend some time to see just how much memory they need. Then create an application entry for each of them that specifies the right amount of RAM. Doing so means that you will never have more memory tied up in the DOS box than you actually need - Ted Dickens.]

- You can assign a start up key for System-Manager compliant applications (.EXM files), however, you cannot edit the **Key Assignment** field for DOS applications. It will always display **Ctrl+123**, the hotkey for returning to the DOS program once it has been launched (or going to DOS if a DOS program is not running). Once the DOS program is launched, you can even close AppManager to save memory and use **[CTRL]-[123]** to go back and forth between the built-in applications.

- You can use the **Comments** field for a short note. There are also two undocumented uses for this field.

1. Include an upside down question mark (press **[Fn] ?**) and you eliminate the "Press any key to continue" message and return directly to AppManager when you exit your DOS program.

2. Include an upside down exclamation point (press **[Fn] !**) and you prevent System Manager from interfering with DOS programs when they are communicating with the serial port. Unfortunately, this also eliminates your ability to task switch to built-in applications.

- **Icon** - this field allows you to specify the icon displayed in AppManager. While an icon editor is not provided with the HP 100LX, the file ICON.ZIP , a free-ware program, is available in CompuServe's HP Hand forum.

The icon file (with an .ICO extension) must be in the same directory as the DOS program file in order for the icon to be displayed as a selection. Once the icon has been added in AppManager, the icon file can be moved or deleted.

- **APLOAD**  expands AppManager's **Utility** - AppManager has some limitations. Some DOS programs require that they be launched from a specific drive and directory. Others look best in a specific screen display mode. You cannot

specify these parameters in AppManager.

These, and other AppManager limitations can be addressed by creating batch files for each application and launching the batch file from AppManager instead of the program. However, batch files take up precious disk space and do not handle all variations. A utility called APLOAD .COM  (and a commercial program from ACE Technologies called AppMan) help solve these problems by letting you pre-configure the 100/200LX to your DOS application's requirements during the launch process.

- **How to break AppManager's additional programs barrier** - Application Manager will accommodate up to 38 applications. However, since 17 of the slots are taken up by the built in applications, you're left with 21 slots to use for your own applications. Even though you can't have more than 21 of your applications available in APPMGR at one time, you can have more than one set of 21 applications by using more than one APPMGR.DAT file.

To get another set of 21 slots in APPMGR, you have to create, and manage, a duplicate APPMGR.DAT file and one or more new APNAME.LST files. (For more details see Vol.2, No.6, Pg.40.)

Mark Scardina [Sysop]
CompuServe ID: [76711,732]

Appt

95LX 100/200LX

Go to current day in Appointment Book

When you first start Appointment Book, it opens to the current day. However, if you switch to another application without quitting Appointment Book (i.e. pressing **[MENU] Quit**), it stays on whatever day you were looking at last. Fortunately HP made it easy to get to today's date on the HP Palmtops.

ON THE HP 100/200LX

From the Appointments or ToDo List screen, press **[F5]** (Goto) and then **[F4]** (Today). When you press **[F5]**, a calendar appears in the upper right of the display.

You can use arrow keys to move the cursor to different days on the calendar. As you do, the Appointments screen changes to that day.

Several other options are displayed on the menu bar at the bottom of the screen, including Month-, Month+, Year-, Year+

nDay-, and nDay+. For example, if you press **F5** (Goto) **F3** (nDay+) **3** **ENTER**, you'll move three days forward.

ON THE HP 95LX

From the Appointments or ToDo screen, press **F5** (Goto) **ENTER** to switch the APPT display to today. (Remember the System date is the default for the Goto command on the 95LX. Of course, if the System date is wrong you will go to the wrong date. So check the date before you press **ENTER**.)

Robert Roney
Editor, HP Palmtop Paper

100/200LX

How to make Appointment Book open on the current day

If you don't quit APPT, it does not automatically advance to the next day at midnight. This means that when you look at your appointment book the next day, you're not in the right place.

I corrected this problem by creating the system macro ({Appt} {Menu}fx), which simply Quits Appointment Book. I then created a repeating appointment to run this system macro at 1:00 am every morning. That way, when I open APPT the next day, it's always on the right day. ((For more on setting an appointment to run a system macro, see "appointments, running programs" in the index of your 100/200LX User's Guides.)

Allen Solof
Fairfield, IA, USA

100/200LX

Slow Appointment Book on the 100/200LX

I did a little research and discovered that the culprits causing a slow Appointment Book on the 100/200LX, are repeating appointments and carry-forward to-dos.

I speed my Appointment Book up by moving long-term To-dos into a Note-Taker database.

Ed Keefe
CompuServe ID: [75300,3667]

100/200LX

Appointment Book alarm boring? Here's how to customize it.

The alarm sounds supplied with the 100/200LX Appointment Book are a little dull. Below are instructions and examples on how to create interesting alarms.

CREATING ALARMS

1. Open Memo and type in the following sample code (a short melody from Bach). The blank spaces (or commas) between the groups of characters are there to make it easier for you to read the code. Although not absolutely necessary, leave the spaces in. It will make it easier to go back and correct a mistake.

```
t200 k1 o3 v3 daf. l16
edfedc#e L4 o2 a
```

[Editor's Note: The letter "L," is entered in upper case to distinguish it from the number "1." The alarm function doesn't care whether the letters are upper or lower case.

The entry above is word wrapped to fit into the format of The HP Palmtop Paper. Type the entry on one long line. Where a line wraps below, leave a blank space.

2. After you have finished entering the above tune, save the file as C:_DAT\ALARM.SND. Then open Appointment Book, press **MENU** Options Alarm Beep... and select **Custom**. You can press **S** to Test your new alarm. If you like it press OK and the new sound will be used for your Appointment Book alarms.

UNDERSTANDING THE ALARM CODE

The ALARM.SND file contains the musical code. In the example above, the code begins with t200 k1. When the alarm comes due, Appointment Book reads that file and plays the melody. Writing your own alarm melody requires a little patience, but the process is pretty straight forward. It involves opening MEMO, keying in the tune, saving the file as ALARM.SND, and setting up Appointment Book's Alarm Beep option as described above. (A list of the commands used to write a custom alarm is found in the 100/200LX User's Guide. For a page reference, see "Custom, alarm sound" in the User's Guide index.) Some additional sample alarm tunes are archived in ALARMS.ZIP.

Rich Hall
Editor, The HP Palmtop Paper

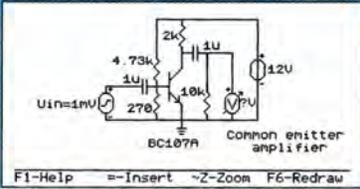
100/200LX

Use Appointment Book to do a timed automatic backup

I am using a batch file started from the Appointment Book to backup my files every night. It copies all files which have

Palmtop Circuit
HP 95/100/200LX

Nonlinear analog circuit analysis



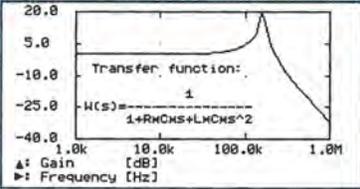
FI-Help --Insert ~Z-Zoom F6-Redraw

Study and design linear and nonlinear analog electronic circuits on your HP 95/100/200 - get it right with this electronic breadboard. Sketch and simulate in minutes - cutting design costs and reducing experimentation.

You can evaluate circuits by DC, AC or transient analysis with waveform options (pulse, unit-step, sine, square, triangular, trapezoidal). You also get **symbolic analysis** (closed-form expressions) for linear circuits, plus plots for functions.

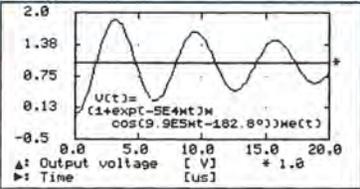
Why waste time with a series of trials? Pick the outcome you want. Palmtop Circuit will deliver the necessary parameters using optimization. With Palmtop Circuit, the power of circuit analysis is always in your pocket. And if you buy Palmtop Circuit now, you get the same fully featured IBM PC-compatible version - **Absolutely free!**

Hardware requirements: HP 95/100/200LX, and minimum 1 MB of memory card. Comes on 3.5" disk, requires serial cable & HP Connectivity Pack for downloading to HP 95/100/200LX.



Transfer function:
H(s) = 1 / (1 + R1C1s + L1C1s^2)

You can evaluate circuits by DC, AC or transient analysis with waveform options (pulse, unit-step, sine, square, triangular, trapezoidal). You also get **symbolic analysis** (closed-form expressions) for linear circuits, plus plots for functions.



U(t) = (1 + exp(-SE4nt)) * cos(9.9ESht - 182.8°) * Me(t)

Hardware requirements: HP 95/100/200LX, and minimum 1 MB of memory card. Comes on 3.5" disk, requires serial cable & HP Connectivity Pack for downloading to HP 95/100/200LX.

Palmtop Circuit \$89.95

DesignWare Inc.
17 Main Street Watertown MA 02172
Order Toll-Free:
Tel.: (617) 923-4275 Fax: (800) 536-7595

been changed on drive C to my RAM card, drive A. The batch file also writes the date and time to a file to verify that the backup actually took place (it always has). I have it set to start at 2:00 am every morning. My BACKUP.BAT file looks like this:

```
echo off
rem --- RUN DAILY BACKUP OF C:
rem --- and subdirectories
rem --- to A:\backup\full
rem ---
rem --- Start in C:\
cd
rem --- Remove time stamp
del a:\backup\delttime
rem --- Complete Backup to A:
copy c:.* a:\backup\full /s /m /y
rem --- When was this job done?
date > a:\backup\delttime & a:\backup\cr.txt
time > a:\backup\delttime & a:\backup\cr.txt
rem --- Return control to SYSMGR
exit
```

The file CR.TXT accessed from the batch file in the third-to-last line contains one carriage return. Create the file by going into MEMO and press **ENTER** once and save it as the file CR.TXT in the A:\BACKUP directory on the RAM card. Then set up BACKUP.BAT as a repeating appointment in APPT using the vertical bar in the description field: IC:\backup.bat. You will also need to put Q in the location field to suppress the "Press any key..." message and allow the computer to return to System Manager. (See pages 13-18 in the HP 100LX User's Guide for more on this subject.)

If you have problems running this, you might need more system memory. You could have APPT run a macro that terminates all programs before running this backup batch file. Also, make sure no DOS applications are open before going to bed.

Iver Erling Aarva
CompuServe ID: [70630,553]

100/200LX

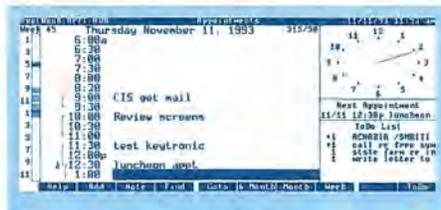
Display analog clock and day bar in Appointment Book

You can customize your Appointments (or ToDo List) screen to display an analog clock in the upper right corner instead of the small calendar of the month.

To customize the Appointments screen, press **MENU** Options **A** (to go to the Customize Appointments View box).

Then use the up or down arrow key to highlight Appointments With Clock and press **ENTER**. If you had selected Appointments, your screen would be displayed without clock, calendar, or ToDo list.

To modify the ToDo List screen, press **MENU** Options **Q** and follow the same procedure.



Appointments screen displaying analog clock and day graph

You can tab to the **Day Graph** option in the Customize box and press **<Spacebar>** **ENTER** to select it. This displays a time bar to the left of your Appointments or ToDo list, graphically representing your appointments in a 24 hour period.

You might want to set up the Appointments screen with a calendar and the ToDo List screen with a clock. You can easily toggle between the two views by pressing **F9** (Appt) and **F10** (Todo).

Robert Roney
Editor, HP Palmtop Paper

95LX 100/200LX

"Appointments Only" simplifies display

When first using APPT I had a few appointments spread throughout a 9-5 day, and scrolling through them was time consuming and frustrating. Then I learned to set the appointments display to Appts-Only (display only those time slots with an appointment scheduled). Instead of a long list of time slots with many empty spaces, I can see up to 9 appointments at a glance and scroll down if there are more. This lets me quickly look at all my appointments and it's easier to see at a glance if there are any time conflicts.

ON THE HP 95LX IN APPT
Press **MENU** Settings Timeline Appts-Only.

ON THE HP 100/200LX IN APPT
Go to your Appointments screen and press ZOOM (**Fn**-**<Spacebar>**). You'll toggle through displaying appointments every hour, half-hour, 15 minutes, and appointments only.

Robert Roney
Editor, The HP Palmtop Paper

95LX 100/200LX

Don't have to press Q when entering time on the HP Palmtop

When entering time in appointments or using the watch function, you do not have to enter a colon between the hour and minutes (i.e. 9:30). You can hit

<Spacebar> rather than colon when you want to enter the time (and to make a backslash between the elements of a date). You can also hit hyphen, slash, period, or comma instead of a colon. (The HP 200LX doesn't recognize the spacebar as a substitute for the colon in a time field.)

Usually, you don't have to enter the punctuation at all between the hour and minutes on the 100/200LX. For 9:30, just enter 930. The 100/200LX will put the colon in. However, if you try to enter 1:05 or 1:15 without a colon, the Palmtop assumes you meant 10:50 or 11:50. You need to put the colon in here.

Hal Goldstein
Editor, The Palmtop Paper
Everett Kaser
CompuServe ID: [74431,1441]

HP Calc

95LX 100/200LX

Reference books on using HP CALC's Solver

HP CALC is modeled after the HP19BII calculator. A good resource/reference on using Solver is *An Easy Course in Using the HP19BII* by Grapevine Press (800-338-4331 or 503-754-0583).

Fred Kaufman
CompuServe ID: [72560,36]

All the HP 19BII application books can be used with the HP 95LX except that the 95LX lacks a forecasting exponential, power, logarithmic function. If you need a jump-start in the 95LX equation solver, buy the book *Tech Applications using HP Solve*. EduCALC 800-677-7001, carries it (stk ID:548 for \$9.95).

Tim Schweikert
CompuServe ID: [72037,754]

95LX 100/200LX

Copy and Paste to other built-in applications

Let's say you want to copy the results of a calculation into a MEMO letter.

First, copy the results in the Calc line into memory: On the 95LX press **CTRL**-**F2**; on the 100/200LX press **Fn**-**□**. Next go into MEMO and position the cursor at the location you want the results to appear. Finally, paste the results in: On the 95LX press **F4**; on the 100/200LX press **Fn**-**□**.

Hal Goldstein
Editor, HP Palmtop Paper

95LX 100/200LX

Transfer numbers between HP CALC and 1-2-3

If you use the copy and paste method described above to transfer HP CALC data to your Lotus spreadsheet, the data is treated as a label (text) by Lotus.

There is a way to move numbers from HP CALC into Lotus 1-2-3. First, make sure you have 1-2-3 open. Go back to CALC and complete your calculation. Then press **STO @** on the 95LX, or **STO <Spacebar>** on the 100/200LX and you're transferred to Lotus. Move the cursor to the cell in which you want to copy the number and press **ENTER**. The number is placed in your spreadsheet as a number.

Hal Goldstein
Editor, HP Palmtop Paper

95LX 100/200LX

Backsolving with Solver and 1-2-3

Backsolving is a powerful technique that combines the abilities of HP CALC and Lotus 1-2-3 to solve problems. Let's use as an example a simple algebraic formula: $A1+B1=C1$. You can enter the equation $A1+B1$ into cell C1 in Lotus. When you assign numerical values to cells A1 and B1, cell C1 will compute the answer. However, Lotus cannot backsolve. That is, once you've entered $A1+B1$ into cell C1, it will not let you assign a value to cell A1 and C1 and solve for B1.

You can use Solver alone to backsolve. For example, in the above case you can substitute constants for any of the variables. The Palmtops' User's Guides give examples of using the backsolving technique, including using HP Calc to let Lotus backsolve. (For more information, see "Using the Solver in a 1-2-3 Worksheet," on page 28-21 of the HP 95LX User's Guide, or see "Solver, backsolving" in the index of your HP 100/200LX User's Guide. Also see Ed Keefe's article on backsolving, Jan/Feb 93, page 31.)

Rich Hall
Editor, The HP Palmtop Paper

95LX 100/200LX

Using Reverse Polish Notation on the HP Palmtop

RPN is a variation on a parentheses-free mathematical logic known as "Polish Notation," developed by the Polish logician Jan Lukasiewicz (1878-1956). Many HP calculators have featured Reverse Polish, especially the HP-12C business calculators and the HP-41 series.

The HP 95LX and 100/200LX offer the

choice of using either RPN or Algebraic notation in HP Calc.

To set the 95LX for RPN, go to HP Calc and press **[MENU] Options Alg/ RPN**. To set the 100/200LX for RPN, go to HP Calc and press **[MENU] Options Calculator Modes RPN [F10]**. (This tip was excerpted from an article by Ed Keefe, beginning on page 50 of Vol.3, No.3.)

Ed Keefe
CompuServe ID: [75300,3667]

Data Base

(See Phone & Database)

DataComm

(See Communications & Connectivity)

Filer

95LX 100/200LX

FILER always available; Quitting doesn't save RAM memory

The Filer is always active so that you can always clean up the disk, erase, move, or copy files and not get locked up trying to save something INCREDIBLY valuable when there is no room left. You can always press the blue Filer key and tidy up. Because this is the case, quitting Filer doesn't save RAM memory. There's no real reason to quit Filer.

Mark Scardina has written CloseFiler 1.0 (CLSFLR.ZIP) a free utility for the 100/200LX that removes FILER from memory freeing about 50K of System RAM when System Manager is running.

Fred Kaufman
CompuServe ID: [72560,36]
Ronald Viecelli
CompuServe ID: [73310,3663]

95LX 100/200LX

View large files in FILER

Some text files may be too large to open in MEMO. For example, many E-Text files (see Verticle Reader, page 46) are too large to open in Memo. However, you can view large text files with FILER. In FILER place the cursor on the file you wish to view and press **ENTER** on the 95LX or **[F8]** on the 100/200LX.

Robert Roney
The HP Palmtop Paper

100/200LX

Finding files with text search

You need to find a file quickly. You forgot its name, but you know it's in the

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root directory of your A: drive and has the text, "Call now" in it. Open FILER and go to A:\. Then press **[MENU] Options Text Search...** You'll get the **Text Search** box that looks like this:



100LX FILER Text Search box

Key in **call now** and press **[F10]** (OK). You'll get a "Text Search Results" box that looks something like this:



Text Search Results box

The smaller **In Files:** box lists all files that contain the text you searched for. Arrow down to the desired filename and press **F8** to view the contents of the file. (If you've got Buddy 2.0 **B** on your system, you can press **B** to activate the "Text Search" box. Once you've found a file, you can press **F4** or **MEMO** from the "Text Search Results" box to load the highlighted file into MEMO. Once you quit MEMO, you return to the "Text Search Results" box. Buddy 2.0 works on both the HP 100LX and 200LX.)

The text search only looks at files in the current directory. If you suspect the desired file is in another directory (i.e. A:\BUSINESS), go to that directory in FILER and perform the text search.

*Rich Hall
Editor, The HP Palmtop Paper*

Lotus 1-2-3

100/200LX

Use 95LX built-in spreadsheets on the 100/200LX

The 95LX built-in spreadsheet files are not found on the HP 100/200LX, but will work on the newer version of Lotus built into the 100/200LX. The spreadsheets, _CARLOAN, _CFLOW, _EXPENSE, _HOMEBUY, and _STAT can be found in _HPWK1.ZIP **I**.

*Rich Hall
Editor, HP Palmtop Paper*

95LX 100/200LX

Password protection in Lotus on the HP Palmtops

One way to protect your sensitive information is to keep it in a Lotus worksheet and save it with a Password. To do this when saving the worksheet, type in the name you wish to save the file under, followed by an empty space and the letter P. Then press **ENTER**. You will be prompted to enter a password. The password is required to retrieve the worksheet into Lotus, and the sensitive data is not visible with any hex file editor like Norton Utilities. (For more on 1-2-3 passwords see page 6-11 of the *HP 95LX User's Guide*, or see "1-2-3, passwords" in the index the *HP 100/200LX User's Guide*.)

A LOTUS spreadsheet damage recovery program called Rescue has an included program that will rescue a forgotten

password.

Another way to encrypt data is to use a file compression program like DIET **I**.

*Marc Schiffing
CompuServe ID: [72311,173]
Michael Gilchrist
CompuServe ID: [73557,2232]*

95LX 100/200LX

Use Lotus as a database

Many people use Lotus 1-2-3 as a database. This approach is particularly useful for people who need to be able to calculate sums of fields and for 95LX users who have large phone books and run up against the .PBK file size limit.

The trick is to allot 1 row of spreadsheet cells per record. For example, you might set up a phone book database as follows: Column A - Last name, B - First name, C - Company, D - Address, E - ZIP, F - Country, G - Codes, H - Comments. Using the **Menu Data Sort** command, one could sort the names by Last name, ZIP, Country, etc.

*Hal Goldstein
Publisher, The HP Palmtop Paper*

Memo

95LX 100/200LX

Spell Checking Documents on the HP Palmtop

The HP Palmtops do not have built-in spelling checkers. Because of this, many users create documents in memo on the Palmtop and then transfer them to a full-featured word processor on their desktop PC to spell check and format. However, there are some spell checker and thesaurus programs that will work on the HP Palmtop.

■ **HP Dictionary/Thesaurus card** – This ROM card slips into the memory slot of the 95/100/200LX and works in stand-alone mode or with its own version of the HP 95LX built-in MEMO text editor to check spelling, look up definitions, and find synonyms. (Please see the product index for price and contact information.)

■ **fastWRITE** – a wordprocessor with an integrated 100,000 word spell checker. Works on the 95LX and 100/200LX. (fastWRITE is available from ACE Technologies. Please see the Product Index on page 47 for price and contact information.)

■ **VDE **I**** – a small shareware word processing program. When you register VDE (\$30) you get an additional module that lets you spell check. (Please see Shareware/Freeware index, page 48, for more information.)

■ **WordPerfect 4.2 and 5.1** – these are older versions of one of the most popular full-featured word processing programs ever. They have spell checkers and thesaurus programs. Version 4.2 has been installed on the 95LX (see page 44, Nov/Dec 92 issue). Both versions should work on the 100/200LX, but the necessary WP 5.1 files take up a bit of space. The spell checker in WP 5.1 runs as a separate application, without the WordPerfect word processing program loaded.

WordPerfect version 4.2 is no longer available through retail channels. Version 5.1+ is still available through WordPerfect Corporation (800-451-5151) or a third-party software vendor. List price for 5.1+ is \$269, but you may be able to get it for less through discount vendors.

■ **SPEL95 **I**** – a small, freeware spell checker that works with all the HP Palmtops. This Terminate and Stay Resident spell checker loads when you boot up and occupies 60K of System RAM. Activate it by pressing **CTRL** three times. After that, as you type, each time you press **<Spacebar>** or **ENTER**, the word to the left is checked. If the program recognizes the word, nothing happens. If it does not, it beeps at you. (Please see Shareware/Freeware Index, page 48, for more information.)

■ **Webster's New World Spelling Checker (version 1.4)** – This older version works fine on the HP 100/200LX. It has an ample 110,000 word dictionary and an auxiliary dictionary file allowing you to enter your own words. The files on this older version are smaller than those of more recent releases, which is good news for space-conscious Palmtop users.

This older version of Webster's Spelling Checker is available from Thaddues Computing while supplies last. (For more information, please see the Product Index on page 47.)

*Robert Roney
Technical Editor
The HP Palmtop Paper*

95LX 100/200LX

Delete word, line in Memo

You can use the following key sequences to delete a word or line in MEMO. You

can automate the process by recording these key sequences as system macros. (If these key sequences are used on a word followed by punctuation, the punctuation mark will be deleted. If they are used on a word followed by a hard return (generated by pressing **ENTER**) the hard return will be deleted.)

DELETE WORD IN MEMO, 100/200LX
Place cursor on the word in MEMO that you wish to delete and press the following keys. Note that keys with a hyphen between them indicate that you have to press those two keys at the same time.

Press **CTRL-<RightArrow> ESC CTRL-<Shift>-<LeftArrow>** to highlight the word. Then press **F7** **Q** to cut it.

DELETE WORD IN MEMO, 95LX
Place cursor on the word in MEMO that you wish to delete and press the following keys. Note that keys with a hyphen between them indicate that you have to press those two keys at the same time.

Press **CTRL-<RightArrow> F9 CTRL-<Left>** to highlight the word. Then press **F3** to cut it.

DELETE LINE IN MEMO ON THE 100/200LX
Move the cursor to any point in the line you want to delete and press **CTRL-DEL**.

DELETE LINE IN MEMO ON THE 95LX
Move the cursor to the beginning of the line to cut and then press **F9** (Mark) **<Shift>-<RightArrow>** (End) **F3** (Cut).

Allen Solof
Fairfield, IA

Rich Hall
Editor, The HP Palmtop Paper

95LX 100/200LX

View and edit other word processor documents in MEMO

You can import other word processing documents into MEMO as follows. Most word processing software allows you to save a document as a "Text" or "ASCII" file. (In many modern Window's-based word processors, you press the **File Save As** option and select the *.TXT or DOS Text option.) This creates a document file with text only. After you save a file as a text file, you can copy it over to your HP 95LX or 100/200LX and open it up in MEMO and work on it.

Likewise, most word processing software can open and work on text or ASCII files. So you can copy an unformatted MEMO file you've been working on over

to your desktop PC and open it up in your favorite word processor.

Rich Hall
Editor, The HP Palmtop Paper

NoteTaker

[Note: Many of these tips are taken from an article beginning on page 47 of Vol.3, No.4 of *The HP Palmtop Paper*.]

100/200LX

Combine small Memo files into NoteTaker

Take a look at your MEMO, .TXT or .DOC files. If you find that you have quite a few small files that contain information you like to have available, you can combine all those into one NoteTaker file and have them readily available and searchable.

I have a NoteTaker file that is kind of a catch-all that has tables and information I need for work plus a copy of approved letters for clients, federal tax tables, books to look for etc. I have also scanned in

certain reference materials that I like to have available.

Ronald Viecelli
CompuServe ID: [73310,3663]

100/200LX

Diary: date stamp makes NoteTaker into a diary

I have several Notetaker files that I use as diaries for different activities. I have moved the columns around in the main NoteTaker screen to see the Title and Category fields, and the first eight characters of the Note field.

When I want to make an entry in one of these diaries, I press **F2** to add an entry and **F3** to go to the Note field, where I immediately enter the date by pressing **F7** **Q**. I enter all follow-up conversations, information, notes, etc., in the Note field after the date. I have the file sorted by the Note field and entering the date causes the most current entries to be displayed first.

I use the Title field to identify a particular issue, problem, project, etc.

Siroos Afshar
CompuServe ID: [73044,3302]

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Windows Sources June, 1993

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100/200LX

Professional time billing

When I arrive at a client site I open NoteTaker, press **F2** (Add) and type the clients name in the Title field. I Tab to the note field and hit **Fn** **Q** (Date) and **Fn** **Q** (Time). I then log what services I performed and again pressed **Fn** **Q** (Time), then **ESC** **F10** to save the changes when I leave.

Brett M. Koven
CompuServe ID: [76050,3410]

100/200LX

InfoSelect faster in some ways

InfoSelect is a popular freeform database program. I just moved a whole slew of items to a Notetaker file, including my InfoSelect "notes." Notetaker is very slow on searching the stack. InfoSelect is much faster and I like its look better, too.

Fred Kaufman
CompuServe ID: [72560,36]

Phone Book and Data Base

100/200LX

Sort and arrange columns to display Phone Book differently

It's often handy to have the phone book (or any database) sorted and displayed in different ways. An alphabetical sorting by names helps you look up phone numbers in your phone book. A sorting by phone number helps you find a name when all you have is the number or if you want to see all the names in an area code. Although we'll use the Phone Book as an example, these techniques work with any Database.

CHANGE SORT ORDER

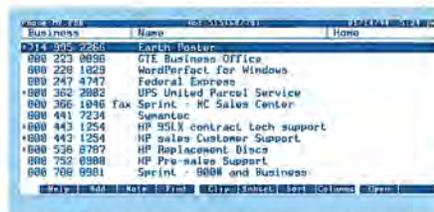
First lets change the order in which the All Items list is displayed. Press **F7** from the All Items list and the Sort dialog box is displayed. The cursor is in the **1st sort field** box. Use the Up and Down arrow keys to select **Business** (phone), or whatever field you want to sort on. Press **F10** to sort your phone book in ascending order by the Business phone numbers.

CHANGE COLUMN DISPLAY

You may want to change the All Items display so the Business phone number is in the left column.

The All Items screen in Phone Book, by default, displays a listing of the first three data fields of each item in your phone book. Go to the All Items screen of your Phone Book and press **F8**. The cursor is in the first column (the first entry in the **Name** field). This example assumes that **Business** is the second field in the Phone Book.

Notice that the key labels at the bottom of the screen have changed. F7 moves the column to the left and F8 moves the column to the right. Make sure the Name field is highlighted and press **F8** and the Name column is moved one to the right. The Business field is now at the left of the screen and the main screen will look something like this:



Modified PHONE screen, 100LX

You can also decrease the width of a column **F5**, increase the width of a column **F6**, add a column to the display **F2**, or delete a column from the display **F3**. The Arrange Columns function only affects the main Phone Book display. It does not remove fields of data from the database.

Press **F10** when you are done rearranging the main Phone Book screen.

Rich Hall
Editor, The HP Palmtop Paper

95LX

Strategies for using PhoneBook as a database

Many 95LX owners use Phone Book as a general database program, using it to track product information, surgical procedures, baseball schedules and more. Whatever you are storing in PhoneBook, make sure you enter your data consistently and uniquely so you can use the **F5** ONLY command to search for subsets of the data.

For example, when entering phone numbers into PHONE, surround the area code with parentheses: (444) 555-6666. That way if you know someone is in the (444) area code but can't remember the name, you can perform an ONLY search on (444), and not get the names of people

who's Zip or street address has 444 in it.

Place an empty space in front of the company affiliations, to help guarantee uniqueness. That way you can search for NU (Northwestern University), by doing an ONLY search on **<Space> nu <Space>**. Because of the leading and ending spaces, you will not find "Sanunu" or "Nusbaum" in the search.

Tom Anderson

100/200LX

100/200LX Database category limits?

A 100/200LX Database (also, Phone and NoteTaker) file is limited to *one* category field. A category field provides a drop down list of categories, which you can use to find records in your database. As you use your database you can add new categories to the drop-down list. You may reach a point where you can't add new categories.

There is a limit of 256 total characters for the entire list of categories within a category field. Therefore, if you want to use a larger number of categories in your category list, you will need to use abbreviations or you will quickly reach the 256 character limit.

When you run out of space, you'll need to delete some categories. Highlight the offending category and press **DEL**. The clipboard CUT option will not delete a category.

Fred Kaufman
CompuServe ID: [72560,36]
Mark Scardina
CompuServe ID: [76711,732]

95LX

How to split a PHONE file

The largest Phone Book file you can have on the 95LX is 47K (400-600 names). Some users increase capacity by keeping two .PBK files, one for A-M and another for N-Z names. You'll need to split your existing Phone Book to do this.

Make two additional copies of your original PBK file (keep one as a backup just in case). Open one copy, delete half of the entries (i.e. A-M), and save the file. Then open the second copy, delete the other half of the entries (i.e. N-Z), and save it. You can set up User Keys to quickly transfer between the two Phone Books.

Stanley Dobrowski
CompuServe ID: [71031,2162]

Getting Organized

Here are some tips on how the HP Palmtop can help you get organized and stay organized.

95LX 100/200LX

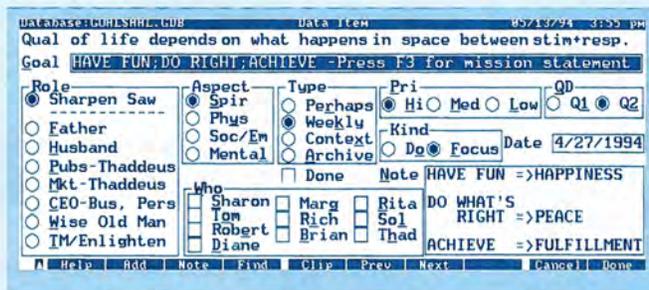
Organize your time by the compass, not the clock

(Condensed from an article by Hal Goldstein. The complete article begins on page 40 of Vol.3, No.3 of The HP Palmtop Paper.)

I've tried many times in the past to use my HP 95LX Palmtop and then my HP 100/200LX to organize my day. However, my todo lists became unmanageably long, and the performance of the Palmtop sluggish. Then I read Steven Covey and Roger and Rebecca Merrill's new book, *First Things First*, and realized that the problem wasn't my time management methodology, but my "paradigm" or internal map of time management.

Covey focuses on importance-driven rather than urgency-driven planning, where effectiveness (results) is emphasized, rather than efficiency (process). Doing the right thing is considered first, before doing things right. Leadership (direction, vision) is primary over management. Covey presents his organizing tool, a weekly planning method, which has made me more effective and more efficient. The nice thing is that Covey's method adapts very well to the HP 100/200LX (and could be made to work on the 95LX with add-in programs like Notepad and ABKTOOL).

I have created a custom HP 100/200LX Database (1STTHING.GDB) that I use with the Appointment Book to implement the Covey weekly planning method. I use 100Buddy (Buddy 2.0 is the latest version) to link these two built-in applications (although 100Buddy isn't necessary).



Data entry screen, 1STTHING Database

I have the phrase "Qual of life ..." displayed at the top of the screen. It is an abbreviated form of "Quality of life depends on what happens in the space between stimulus and response." This is a core idea in *First Things First*. Covey's point is that there is a space between when a stimulus reaches our senses and when we respond to it. This space where our personal freedom resides and where we can be proactive (deal with the stimulus) rather than reactive (wait until it deals with us).

The data entry screen contains the following other elements:

- **Goal box** — a text field where I enter the thing I want to accomplish. When I want to enter a new goal, I press [F2] from the main index screen and type in my new goal.
- **Group Boxes** — The next 7 boxes help me further define what the goal is, how it fits into my overall picture, and how I can accomplish it. The first six of these fields named contain **Option Buttons**, which means I can only select one option within the box. The seventh box, "Who", contains **Check Boxes**, allowing me to check more than one box. These fields are as follows:

Role — I have different roles in life (father, CEO, publisher, etc.). This field lets me associate the goal with one role.

Aspect — This field lets me specify the activity the goal is associated with, Spiritual, Physical, Mental or Soc/Em? (e.g., if the goal was to develop a marketing strategy, the Aspect would be Mental).

Type — Type of goal.

Pri — I specify the goal's priority (High, Middle or Low).

QD — I specify whether the goal is in Quadrant 1 (important and urgent) or Quadrant 2 (important but not urgent). Covey identifies two additional quadrants that I do not include: Quadrant 3 (urgent and not important) and Quadrant 4 (not urgent and not important).

Kind — Covey defines two kinds of goals; "determinations" (Do) and "concentrations" (Focus).

Who — Who will help me accomplish this goal (I check as many as I want).

The rest of the fields are my own invention and not directly part of the planner Covey describes in his book.

PLANNING A WEEK

Covey sees daily planning as too myopic and urgency driven, and favors weekly planning, which lets you schedule first that which is really important for each of your roles. I have a number of different subsets defined in my database, allowing me to view my goals in a variety of ways. For example, I can look at my goals for the week, my goals for each role I define, and more. I change the "Type" of any goal I select to "Weekly."

I select goals and transfer them over to my Appointment Book. First I schedule all that I can in specific time slots. I block out time in the week for the most important activities first. Some activities are not associated with a specific time (e.g., reading a book, logging on to CompuServe to check messages, etc.). I enter these in my Appointment Book todo list for automatic carry forward. When I have free time in the day, I check my todos and attend to these activities.

When I'm finished transferring goals, I take a look at my Appointment Book's Weekly view and see if I've over-packed it. If I bump a goal off my weekly appointment list, I change it's "Type" on the database from "Weekly" back to "Perhaps" or one of the other options.

The scheduling process is quite painless even sort of fun with the help of 100Buddy. I created a Smart Clip (named ">100Buddy") that consists only of the Goal field. I highlight an item from the index list of my Weekly subset and press [Fn] [A] or [Fn] [T]. 100Buddy automatically writes the goal in the Appt or Todo Description field, and pops up the calendar so I can assign the date. I then tab to the time field and key in a time, or delete the time to make the goal an event for the day. You could do this process manually, or develop system macros to assist you.

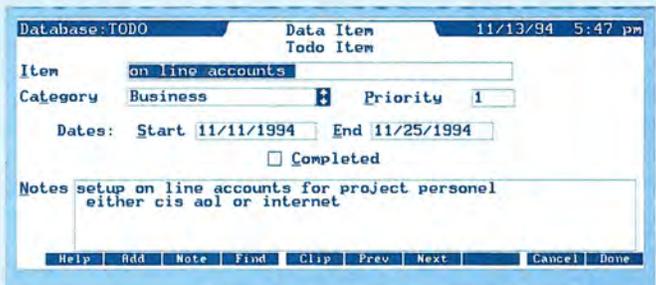
100/200LX

Custom Database Tracks Todos

(Note: This tip was condensed from an article by Al Harrington, beginning on page 42 of Vol.3, No.6, 1994 of The HP Palmtop Paper.)

I have to track a lot of todos and find the Appointment Book's Todo feature limited and slow for my purposes. To overcome this, I have created a custom database to make it easier to manage my large todo list. TODO.GDB comes with several pre-defined subsets, a custom Datacard (200LX only), and a set of macros (TODO.MAC) to help manage the database.

The Data Item entry screen is displayed below:



Todo Database, Individual Item view

The structure of TODO.GDB is quite simple.

Item — The name of the todo.

Category — This field is used to organize the different types of todos I have.

Priority — contains a number to designate the importance of the ToDo.

Start — The date to start the todo.

End — The expected completion date for the todo.

Completed — A check box to mark the todo as completed.

Notes — Used for storing various bits of information relating to the todo. Also used to schedule appointments and meetings (see Macros section).

Before I start a particular activity (for example, before a class begins) I select the subset for the activity and review the items. I have found out that it is sometimes useful to do this well in advance of the activity. For example, before I head off to a meeting I load the "Meetings" subset to see if there is anything I need to bring to the meeting. Several times during the day I review the urgent tasks and if I happen to have a "slow" period I review non-urgent tasks. This database is a basic tool that can be used with a variety of time management systems. By modifying the subsets and categories you can customize the Todo Database to tailor your particular method of time management.

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95LX 100/200LX

Use Cut and Paste to copy entire Phone/Database item to MEMO or other application

You can Copy or Cut items from PHONE on either Palmtop (or any 100/200LX Database applications).

On the HP 95LX

Open PHONE and highlight the desired card in the Index screen. Press **F2** to Copy or **F3** to Cut the item. The entire card's information, including the Name, Number, and Address, is stored in the Clipboard's memory buffer. Open MEMO and press **F4** and that information is copied to the screen.

On the HP 100/200LX

Open PHONE, or any Database application including APPT, Database, Note-Taker, WorldTime. In the main list screen highlight the desired item and press **Fn** **[]** (Cut) or **Fn** **[C]** (Copy). Then move to MEMO and press **Fn** **[+]** (PASTE) and the entire database item, including the field labels, will be copied to the MEMO file.

Rich Hall
Editor, The HP Palmtop Paper

100/200LX

Rules of thumb for setting up HP 100/200LX databases

There are a certain number of rules of thumb that you can use in setting up a database on the 100/200LX:

1. Make the field you use the most the first field of the index. Structure the data in this field so that the first character is

more discriminant than the second and so forth. For example in the phone book you want the last names first.

2. Use subsets to simplify and speed up the search process.

3. Define your subsets using the Categories field to make your subsetting fast. Don't use * value except if you must. (* value tells the subset to find any field that contains "value". See "SSL" in the 100/200LX User's Guide index.)

4. The notes field is a good catch all, but doing searches for information in it slows things down. Create data fields for your important data and search on those fields, not the Notes field.

5. If you have to do searches in fields, use the "exact match" or the "anything that starts with..." options. They are much faster than the "anything that contains..." option. Above all, experiment.

Christophe J. Cremault
CompuServe ID: [74750,357]

95LX 100/200LX

Find items fast in PhoneBook and DataBase: Use Subsets

The 95LX PHONE application lets you press **F6** (Only) to create a subset of the PHONE Book list. Let's say on the 95LX you wanted to create a subset listing of every reference to the area code 206 in your phone book. In your phone book, suppose you have entered all area codes in brackets to distinguish them from other numbers. From the PHONE application, press **F6**, **(206)** and press **ENTER**. The subset list will display all the records that have (206) in any field in the record.

The 100/200LX lets you define and select many different subsets of the same phone book (or any database). To do a 95LX-like Only search from within PHONE, press **F6** (Subset) **F2** (Define) and you are presented with the Define Subset screen.



PHONE's Subset screen, HP 100LX

In the Name field type ***(206)** and press **F10** (OK). Give the Subset a name (e.g., "Area Code 206") and press **ENTER**. Then, with **Area Code 206** highlighted, press **ENTER** once more. All the records that

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have (206) in any field will be displayed.

If you don't use the asterisk before the selection criteria, the Subset will select only those records with the selection criteria in the Name field. The asterisk tells the 100/200LX to look for (206) in any field.

Robert Roney
Editor, HP Palmtop Paper

System Macros

95LX 100/200LX

Use full filename in macros

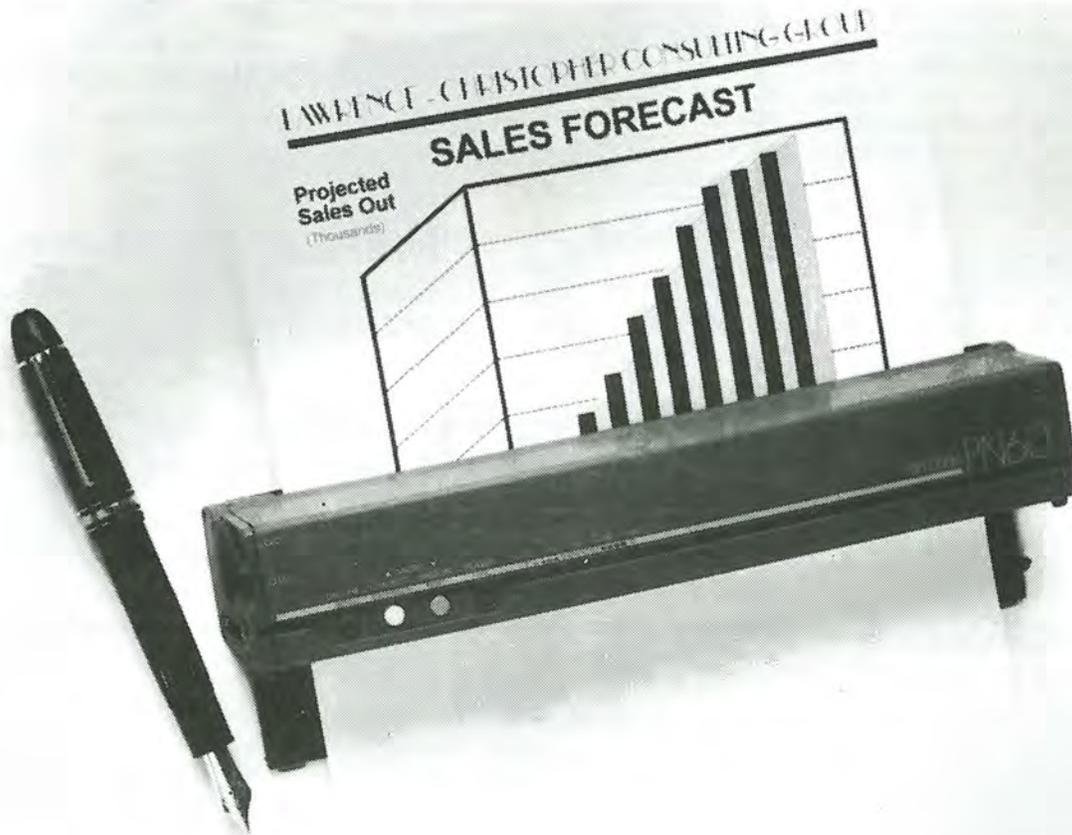
When creating a system macro to open a file in an application, type out the full file path and name – don't use the arrow keys to highlight the desired file.

Suppose you're creating a system macro to open the file A:\LETTERS\DOC1.TXT in MEMO. At some point in the macro you could use the arrow keys to select the directory and the file in the Open File dialog screen. Let's say it's the third file in the second directory.

This macro would work fine until you added or deleted a directory or file that

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changed the position of either A:\LETTERS or DOC1.TXT. Then when you activated the macro, it would still go to the second directory and the third file in the Open File dialog box, which would no longer be DOC1.TXT.

The way around this is to key in the entire path and file name when you are creating the macro. When you press **[MENU] File Open**, The cursor is resting in the File to Open: box. Type in the entire path and file name (e.g. A:\LETTER\DOC1.TXT) and press **[F10]** (OK).

Rich Hall
Editor, The HP Palmtop Paper

100/200LX

Stopping a runaway Macro

Because you can link System Macros on the 100/200LX as described above, it is possible to create a macro that recurses or loops (that is it keeps running and running and won't stop). If this happens, you can stop it by pressing **[CTRL]-[MENU]**.

Ronald Vieceli
CompuServe ID: [73310,3663]

100/200LX

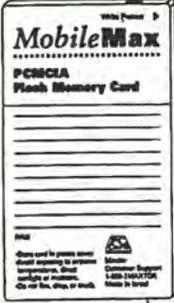
Create bigger macros with Pushkeys

PUSHKEYS.COM is a TSR (Terminate and Stay Resident) program found in D:\BIN on the HP 100/200LX. Pushkeys reads the contents of a .MAC file created by the 100/200LX System Macros application and runs all ten macros sequentially, F1 to F10. [Note: PUSHKEYS.COM is a hidden file that is not displayed in FILER. Go to the DOS prompt, key in the directory command **dir d:\bin /ah** and press **[ENTER]** to get a listing of the hidden files in D:\BIN.]

The System Macro program allows you to create 10 macros with 255 characters in each macro. You can save a set of 10 system macros in a .MAC file by opening the System Macro application, pressing **[MENU] File Save**, and keying in a filename. When set up, Pushkeys will run all 10 macros in a given .MAC file. This will give you the ability to run 2,550 key-strokes with one command.

Before you can use PUSHKEYS, it must be installed as a TSR. To do this press **[&...]** to go to Application Manager and press **[MENU] Application Terminate All... [F10]**. This will terminate all applications. At the DOS prompt type **d:\bin\pushkeys /i** and press **[ENTER]** to install PUSHKEYS. Then type **100 [ENTER]** to restart System Manager. You can auto-

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matically install PUSHKEYS by placing the above two commands at the end of your AUTOEXEC.BAT file.

```
d:\bin\pushkeys /i
100
```

Then whenever you reboot the machine, Pushkeys will be installed automatically.

GETTING A DIRECTORY LISTING

This example shows you how to create a simple macro file, TEST.MAC, that will run two slightly different versions of the DOS DIRectory command. Follow these steps:

1. Save your current set of macros. Go to Application Manager, start the System Macro application, press **[MENU] File Save As**, give your current set of macros a name (e.g. OLD.MAC) and press **[ENTER]**.
2. Clear all the macro fields by pressing **[MENU] File New**.
3. Move the cursor to the Fn+F1: macro press **[ENTER]** and type **DIR OF D:** in the Description field. Move to the Contents field and key in the following macro:

```
[Enter] (More) [Menu] AT: F1: er [Menu]
DIR D:\DIR D: \ / S > C: \ DIR_ D_ TXT
```

```
[Enter] #100#DIR D:\ / S / AH >> C:\
DIR_D.TXT [Enter] #100#EXIT [Enter]
(Memo) (Menu) FOC: \ DIR_D.TXT [Enter]
```

4. Save the macro file and quit System Macros by pressing **[F10] [MENU] File Save As... C:\TEST.MAC [ENTER] [ALT] Quit**.
5. Use MEMO to create a batch file to make Pushkeys run TEST.MAC. The batch file contains one line:

```
@d:\bin\pushkeys c:\test.mac
```

Save the file as C:\TESTPK.BAT. (Lotus 1-2-3 interferes with this example. Before testing these files, save the spreadsheets you're working on and quit 1-2-3.)

6. From FILER, highlight TESTPK.BAT and press **[ENTER]**.

You should wind up in Memo with a directory listing that will include at the bottom of the list the hidden PUSHKEYS.COM file.

This example only contains one system macro in the TEST.MAC file, but shows you, in general, how to use Pushkeys. A more detailed discussion of using Pushkeys is found beginning on page 44 of Vol.3, No.2 *The HP Palmtop Paper*.

Ed keefe
CompuServe ID: [75300,3667]

Communications & Connectivity

Communications

95LX 100/200LX

Capturing text in Datacomm

When you use Datacomm to communicate online you will often find it convenient to save the information you are receiving to a file so that you can view it later. To retain data received by the Palmtop in a file, whether it be simple keyboard activity or TEXT transmissions, use the Datacomm CAPTURE feature. On the 100/200LX, in DataCOMM, press **F5** to initiate a capture. On the 95LX, press and hold **CTRL** until the menu appears, then press and release **F5** (Capture).

A display will prompt:

```
Save incoming data as:  
C:\_DATA\*.CAP
```

Any existing capture (.CAP) files will also be displayed. Type a file name or select an existing file. The display will return to Datacomm and all incoming data will be saved to the file until **F5** on the 100/200LX or **CTRL-F5** on the 95LX is again pressed, closing the file. The Datacomm configuration menu provides three options for the Capture feature. The None setting captures all data. Refer to the manual for details on Filter and Map.

HP Technical Support

100/200LX

Prevent serial port interruptions

If your DOS application uses the serial port, then some extra steps may be needed, since System Manager likes to turn off the serial port to save battery power.

When you exit the System Manager to go to DOS or boot directly to DOS; the serial port is always on when System Manager is not loaded.

For other methods of going to DOS however, there are two considerations. First, the status of COM1 is controlled from SETUP. Press **MENU** Options Communications Port... and you will see a box labelled "Enable COM1 Port in DOS". That box should be checked when you are running a DOS datacomm program under System Manager.

However, while System Manager

turns the port on – it does so rather too exuberantly. Every few seconds, it will go back to the serial port and turn it on again – just in case. This can wreak havoc. To circumvent this behavior, create an entry in Application Manager, **B...**, press **F2** (Add) and fill out the form for your datacomm program. In the Comments field, place an upside down question mark (**¿**), which you create by pressing **FN-FILER**.

A better solution is to use Mark Scardina's ASERCTL **B** program, which you can download from the HP Handhelds Forum on CompuServe. ASERCTL lets you turn the serial port on/off as needed.

Ted Dickens

CompuServe ID: [76701,272]

95LX 100/200LX

Access 800 numbers from outside the US

Many advertisers and services are available on toll-free 800 numbers in the U.S. and Canada. Surprisingly, many companies neglect to give out non-800 numbers for people outside of North America. But, you can still access these toll-free numbers from many other countries using a long-distance carrier's "USA Direct" services. You call the "USA Direct" number in your country which will connect you to a US operator who will place your call to the 800 number. US operator services are available in many countries from AT&T, MCI, U.S. Sprint, and others. You'll have to check for the availability and access numbers for these services in your country. That's the good news.

The bad news is that you will still be charged for the international call even if the call to the USA operator is a toll-free number in your country. You will need a calling card or a way for your local carrier to bill you.

Robert Roney

Editor HP Palmtop Paper

Fax/Modems

You will find complete details on Fax/Modem cards and many other PCMCIA products in the special PCMCIA Bonus issue of the HP Palmtop Paper.

95LX 100/200LX

Fax files require more memory

Each page of an incoming or outgoing FAX takes up about 35-50K uncompressed file space, depending on the fax software you're using. An average Memo page takes up about 4K or less.

To accommodate a number of FAXes and temporary files created by other programs I leave about 600K empty on my drive. This has not been a significant problem for me, but may be for others running software that requires more RAM and/or disk space.

David Hamachek

CompuServe ID: [73700,2250]

95LX 100/200LX

Power requirements for fax/modems on the HP Palmtops

1. Most AC Powered Modems Work

Most AC powered modems will work with the HP Palmtops. However, their size, and the need to be close to an AC outlet, makes them inconvenient to use with the HP Palmtop.

2. Most Line Powered Modems Don't Work With the HP Palmtop

Line powered modems do not require a battery because they derive their power from both the phone line and the serial port of the computer they are connected to. While these modems work well with most desktop and laptop systems, the Palmtop cannot provide them with the power they need to operate.

Larry Lefkowitz

CompuServe ID: [76711,731]

95LX 100/200LX

Stop "call waiting" from interrupting your modem

If you have call waiting on your telephone an incoming call can interrupt an on line session. This can be irritating, costing you time and money. The phone company provides a code that will turn off call waiting. In most parts of the U.S. the code is **70#**, but check with your local phone company for the correct code for your area.

To turn off call waiting use the following string to dial your modem:

```
ATDT70#W0000000000
```

ATDT is the standard "Hayes" command string to get the modem's attention and dial a number. The 70# is the code to disable call waiting. The W makes the modem wait for the dial tone after dialing the 70#. The x's are the number you are calling.

If you do not have call waiting you don't have to worry about the 70# just use the following string, ATDTxxxxxx, to dial the modem.

Larry Tachna
CompuServe ID: [76520,1630]

95LX 100/200LX

Connecting via an external modem

You must correctly connect your modem and the HP Palmtop before you can determine whether or not it will work.

Hardware needed:

Since most modems have a female 25-pin connector, a typical connection requires:

1. HP Palmtop and another computer with a modem or a fax machine.
2. Modem compatible with the HP Palmtop. Most external modems will work with the 100/200LX. Fewer external modems will work with the 95LX. For the 95LX, verify with the manufacturer (Macronix, Telebit, US Robotics, etc.) that the modem supports software handshaking (i.e. the initial communications link-up between the two programs) and can get power from its own batteries or an external power supply.
3. HP PC Connectivity Cable (see above) and Modem Adapter:
 - **HP Adapter Kit** (HP F1023A) (for modem adapter) or
 - **Custom cables**, from Shier Systems & Software and ACE Technologies
4. RJ-11 cable to connect modem to phone line or an acoustic coupler to connect modem to phone handset:
 - **RJ-11 cable** - Radio Shack
 - **TeleCouplerII** - \$139.95, from CP+
 - **Konexx Koupler Model 112 or 204** - \$129, 112 modem/phone interface; 204 acoustic coupler; from Ace.

[See Product Index page 47 for complete contact information.]

Comm Software Needed:

You can use the built-in Datacomm or COMMO.ZIP, FastCOMM!, or KERM-2.ZIP (communications software mentioned in the following section).

Wireless Comm

The following information on wireless communication on the HP Palmtops was taken from product descriptions and reviews by the HP Palmtop Paper staff. Thanks to Rick Shaddock for the tip on SkyTel/ EMBARC.

95LX 100/200LX

Access VCR/TV remote from HP Palmtop

There are two software programs that let you turn your HP Palmtop into a remote control for your TV, VCR or stereo system:

- **myREMOTE** (95LX only, \$29) - ACE Technologies, USA; Phone: 800-825-9977; Fax: 408-428-9721. (See Vol.1, No.6, Pg.28 for a description of the product.)

- **RemCOM** (both Palmtops, \$30) - On the Best Palmtop Tips ON DISK. Also available in the HPHAND forum of CompuServe. (See Vol.2, No.6, Pg.26 for a description of the product)

95LX 100/200LX

StarLink: HP's wireless messaging service

HP's StarLink service aims to simplify the process of subscribing to and using a wireless messaging system by providing the necessary equipment and messaging service in one package.

The StarLink wireless receiver is a 2.2 oz PCMCIA type II card. AAA alkaline batteries will operate the card for about 21 days before the low battery warning. The card includes 128K of flash memory for applications and 128K of RAM for messages.

Choose coverage areas where you would like to be able to receive messages based on where and how often you travel. HP's StarLink services include:

- **Message Link** - Messages are transmitted to you by StarLink operators. Full-text messages transmitted 24 hours a day, 365 days a year, toll-free access from anywhere in U.S.. Updates to APPT and To-Dos can be sent. Other features include message hold, message forward, electronic calendar and group messaging.

- **Toll-free 800 Numbers** - Private toll-free number to give colleagues when they want to send you messages.

- **Note Link** - Leave a long-term or temporary note for operators to give to all callers, or just callers who ask specific questions.

- **PC Link** - You or your caller can send full-text pages directly from any PC computer with a standard wired modem and communications software.

- **News Link** - Get latest news updates.

- **Stock Link** - Get up-to-date information on your personal stock portfolio from Dow Jones and Comtex sources via one of StarLink's special services.

Call **800-917-LINK** for pricing information. For more information see Vol.3 No.2, 1994, pg.5.

100/200LX

Mobile Media

Provides paging and personal communications services at the local, regional, national and international level. MobileMate PCMCIA Message Card is fully compatible with the HP 100/200LX

For additional information on services and equipment, contact: *Mobile Media*, Phone: 800-562-2830.

100/200LX

RadioMail

RadioMail is a two-way wireless messaging and information service that allows mobile individuals to communicate with each other, with their corporate offices, and the rest of the world. A wireless receiver is also needed to access this service.

RadioMail lets you exchange messages with practically anyone with an e-mail address and send wireless messages to registered pagers in the U.S., and to fax machines worldwide.

RadioMail members receive an Internet address, enabling them to exchange messages with others on Internet, CompuServe, America Online, Prodigy, MCI Mail, ATTMail, and other public mail systems. Individuals without e-mail can reach you by calling a toll free number and leaving a message with an operator at the RadioMail Message Center.

In addition, RadioMail allows you to access headline news and sports bulletins, get stock quotes, and your personalized stock portfolio.

For additional information on the service and equipment needed, contact: *RadioMail Corporation*; Phone: 800-597-MAIL; Fax: 415-286-7805; Internet: info@radiomail.net.

95LX 100/200LX

SkyTel and EMBARC serve different niches

Both these services require wireless receivers to access the services. See the Product Index on page xx for contact information.

SkyTel focuses on shorter transmissions (up to 240 characters) for immediate delivery to groups of up to 40 individuals. EMBARC provides less immediate delivery (15 minutes minimum) of longer messages (up to 30,000 bytes) to unlimited sized groups.

EMBARC handles either text or binary files, and sends daily broadcasts of news, sports, and weather. With SkyTel, the receiver pays on a per message plan; with EMBARC the sender pays for the transmission.

Both services provide wireless reception of messages. SkyTel subscribers send messages using a modem or touch tone phone. EMBARC subscribers send messages via a modem or e-mail system.

With a modem and the proper software you can send FAXes, access and control remote computers, or access on-line services. The following programs are of interest:

- **SSFAXER.ZIP**  — for sending faxes via your modem
- **PCAnywhere** (\$179) — to control another computer via modem
- **acCIS 3.0, TAPCIS or AOL 1.6** — to access on-line systems like CompuServe, and America OnLine.

[See *Product Index* page 47 for complete contact information.]

Procedure:

1. Connect the HP Palmtop to the Connectivity Cable; Connect the 9-pin end of the cable to the 9-pin-to-25-pin modem adapter; connect that to the modem; connect the modem to the phone line using RJ-11 cable or an acoustic coupler.
2. Run the desired communications software on the Palmtop.
3. Make sure the communications settings (baud rate, parity, data bits, stop bits) on the Palmtop and modem are the same as those on the computer and modem to which you're connecting.
4. Make sure the other system is turned on and running the appropriate software. After connecting, the software will determine what commands and capabilities are available to you.

HP Palmtop Paper

 **Connectivity**

The topic of connectivity includes anything used to connect the HP Palmtops to another computer.

95LX 100/200LX

How to change the automatic timeout on the HP Palmtops

The HP Palmtops automatically turn themselves off after three minutes if you leave them on and do not press any keys. This can be a problem if it happens while you're transferring large files to your Palmtop. You can use **TIMEOUT.COM** , a 95LX timeout program, to set a new timeout duration on the 100/200LX.

Mark Scardina
CompuServe ID: [76711,732]

95LX 100/200LX

Is the cable in upside down?

The part of the cable that plugs into the 100/200LX has a bump on it and also an HP logo (as long as it is an HP cable). This bump and logo should face UP when plugging into the Palmtop. It can be placed in upside down (don't try this!) but no connection can be made. This happens quite often.

The 95LX cable end and serial port are shaped like a rectangle with rounded corners on the bottom. It is difficult, but possible to put the cable in upside down. For more information see Vol.3 No.4, 1994, pg. 51.

HP Tech Support

95LX 100LX

Use DOS 6.0 INTERLNK/INTERSRV to transfer files between your Palmtop and desktop PC

DOS version 6.0 supports a new feature for connecting to, and transferring files between laptops (and the HP Palmtops as

it turns out). DOS 6.0 must be installed on your desktop PC. Make sure that **INTERLNK.EXE** is in the C:\DOS directory of your PC and add the following line to your PC's **CONFIG.SYS** file:

```
device=c:\dos\interlnk.exe
```

Next load a 38K file named **INTERSVR.EXE** onto your Palmtop. Then connect your HP Palmtop to your PC via the serial cable, run **INTERSVR.EXE** from your HP Palmtop and **INTERLNK.EXE** from your PC.

Bruce A. Kessel
CompuServe ID: [72740,2310]

[Some users have reported problems in **FILER** with this arrangement. Make sure to quit all other built-in applications — Rich.]

95LX 100/200LX

Using Infrared to connect two HP Palmtops

Any HP Palmtop can transfer files to another via **FILER** and the built-in infrared communications port. The first thing you must do is set the Palmtop so it is communicating through the IR port. Next



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you must make sure both Palmtops are communicating at the same baud rate.

SETTING UP THE HP 95LX

Press **FILER** **MENU** Remote-Set Config Interface **3**(Infrared) Quit **Quit**. This will set the communications port to infrared and automatically reset the baud rate to 2400 bps. The 95LX only operates the infrared port at the speed of 2400 bps.

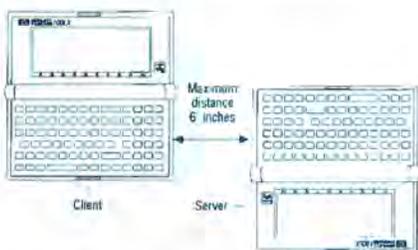
SETTING UP THE HP 100/200LX

Press **FILER** **MENU** Communications Remote Settings..., then select Baud rate. If you are going to communicate with an HP 95LX, select **2400**. If you are going to communicate with another 100/200LX, select up to 115,200 baud. (If you have problems at this speed, select a lower baud rate.)

Next press **Interface**, use the arrow keys to select **Infrared**, and press **F10** to confirm your selections.

ESTABLISH INFRARED LINK BETWEEN PALMTOPS

Select one Palmtop to be the "client" computer (the active member of the link, used to enter commands and view directories). The other Palmtop becomes the "server" (the inactive member of the link). Place the Palmtops on a flat surface so that the ends with the serial port connectors are facing each other, no more than 6 inches apart. The client Palmtop should be facing you, the server should be facing away from you.



Palmtops positioned for IR communication

Start **FILER** on both the Palmtops and press **F7** on the client Palmtop to Split its screen. Then, on the client Palmtop, press **F6** (Remote) to establish an IR connection between the two Palmtops. [Note: HP 95LX's with built-in software version 1.03A do not automatically turn on the serial and IR ports. If you use a 95LX as a server, you will not be able to make contact with it unless the serial port is turned on. There are two ways to manually turn on the IR port on the 95LX that will act as server:

1. Press **COMM** to turn on the ports and then, without quitting **COMM**, go to **FILER**. After finishing the file transfer, go back to **COMM** and **Quit** to turn off the ports.

2. On the 95LX to be used as server, go to **FILER** and press **F6** (Remote). The Palmtop will turn on the IR and serial ports as it attempts to connect with another computer. When it fails (after about 11 seconds) press **ESC** to clear the error message. The IR port will still be on and you can go ahead with the IR port transfer as described above.]

TRANSFERRING FILES

The client Palmtop will display its C drive on one side of the split screen and the server's C drive on the other. You can use the client's arrow keys to move into any directory or subdirectory on either C drive and Copy, Delete, Move, Rename, etc., the selected files.

Robert Roney
Editor HP Palmtop Paper

100/200LX

Find missing directories when using CPACK 100

Some users have reported subdirectories missing when viewing their hard drives from **FILER** or **PHONE** in **CPACK 100**, even when they are visible from **DOS**. This is due to a variable space limit that normally would not effect 100LX users, but might on a hard disk system with lots of files. You can still access the unseen directories from **PHONE**'s **File Open** dialogue box by typing in the path name directly. (No word on whether or not this is a problem on the HP 200LX.)

Mark Scardina
CompuServe ID: [76711,732]

95LX 100/200LX

Serial port file transfer between the Palmtop and PCs

Here's a summary on how to connect the Palmtop to a desktop using the HP Connectivity Cable and transfer files between the two computers.

Hardware needed

The current HP Connectivity Cables work with either Palmtop. They fit directly into the 100/200LX serial port and HP supplies a small 10-pin-to-4-pin adapter to connect to the HP 95LX. The cable is available in:

- **HP PC Connectivity Cable** (HP F-1015A) or
- **HP Mac Connectivity Cable** (HP F-

Palmtop Accessories

for the
100/200 LX - Omnibook

Memory Cards

- **1MB SRAM** \$129
- **2MB SRAM** \$229
- **5MB Flash w/Stacker Card** \$309
- **10MB Flash w/Stacker Card** \$499
- **20MB Flash w/Stacker Card** \$795
- **130MB Harddrive Type III Card** . \$339

I/O Cards

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- **Lan Combo T/2 Card** \$140
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1016A) or

- **HP Connectivity Pack** (100/200LX – HP F1021A)

[See Product Index, page 47 for complete contact information.]

Software needed for file transfer

Datacomm is the communications program built into the HP Palmtops. Like any PC "communications" program, Datacomm can "talk" with another computer in order to transfer files between them. Communications programs use standard file transfer protocols, (such as Text (ASCII), Kermit, Xmodem) to send and receive files.

If you need a communications program on your PC or more capabilities than the Palmtop's built-in Datacomm offers, the following communications programs, which can also transfer files, may be useful:

- **COMMO.ZIP** [] – for the 100/200LX or desktop PC;
- **FastCOMM!** – \$59.00; for the 95LX and 100/200LX;
- **KERM2.ZIP** [] – for the 95LX, 100/

200LX or desktop PC;

- **KERMIT.ZIP**  – for the Macintosh.

[See *Product Index*, page 47 for complete contact information.]

In addition, there are many programs that are designed specifically to make moving files between PCs and Palmtops easier. You may find one of the following 'file transfer' programs helpful:

- **HP Connectivity Pack (95LX – HP F1001A)** – \$119.49; runs on the PC, includes 4-pin 95LX serial cable and 9-pin-to-25-pin adapter
- **HP Connectivity Pack (100/200LX – HP F1021B, International HP F1021C)** – \$119.49; runs on the PC, includes 10-pin 100LX serial cable, modem, printer and 9-to-25-pin adapters
- **IntelliLink for Windows** – \$99.95; runs on Windows PCs, with file translation for both HP Palmtops
- **MacLink Plus HP Palmtop** – \$129; runs on the Mac, connects both HP Palmtops, with file translation
- **PC Data Exchange** – runs on the PC, comes with Sparcom's docking stations.
- **ZIP.COM**  runs on PCs and both Palmtops

The 200LX has LapLink Remote built-in. The following programs were designed for laptops and DOS PCs, but are reported to work with HP Palmtops.

- **FastLynx** – \$29.95; DOS file transfer
- **LapLink V** – \$169.95; DOS transfer
- **Norton Commander 3.0** – \$99; file manager for PCs

[See *Product Index*, page 47 for complete contact information.]

Procedure

1. Connect Palmtop's serial port to the PC's or Mac's serial port using the appropriate HP connectivity cable. PCs with 25-pin serial port will need the 9-pin-to-25-pin adapter from the HP Adapter Kit (HP F1023A).
2. Run the necessary file transfer or communications software on the Palmtop and on the attached desktop PC. For example: run ZIP.COM on both the Palmtop and the desktop PC; or run Datacomm on the Palmtop and Kermit on the PC.
3. Make sure Baud rate and other settings match the settings on the PC's program

and the Palmtop's interface is set to Com1. You can change the settings in FILER, Datacomm or the file transfer program you are using:

- **In FILER:** on the 100/200LX, press (MENU) **C**ommunications **R**emote Settings; on the 95LX press (MENU) **R**emote-Set.
- **In Datacomm:** on the 100/200LX, press (MENU) **C**onnect **S**ettings; on the 95LX, press (MENU) **S**ettings.
- **For other programs:** Refer to their documentation.

4. Make sure the PC is set to the correct COM port.

5. Initiate the connection. (The instructions for connecting vary depending on the communications software and protocol used (Kermit, Xmodem, Text). For the Palmtops refer to the detailed instructions

for each protocol under "transferring files" in the HP Palmtop's User's Guide Index.

HP Palmtop Paper Staff

Macintosh Connectivity

95LX 100/200LX

MacLinkPlus: Palmtop to Macintosh connectivity

DataViz, Inc. manufactures a software program called MacLinkPlus HP Palmtop that enables your Macintosh and HP Palmtop to transfer files. It also provides translation of certain Macintosh file formats to/from the file formats of the 95LX and 100/200LX's built-in applications.

Once set-up, your Palmtop works as

Steps for Kermit file transfer to a Macintosh

The following example is based on using MacKermit 0.99(93) on the HP 100LX. Follow these steps:

1. Configure Mac and Palmtop

To use Kermit to back up your HP Palmtop or transfer individual files, first connect the cable with both units off. Then set the HP Palmtop and MacKermit for the following communication parameters: Baud: **19,200**; Interface: **Com1**; Parity: **None**; Data Bits: **8**; Stop Bits: **1**.

On your Palmtop, go to DataComm, press **(MENU)** **C**onnect **S**ettings, and set the above parameters. On your Mac set Kermit to File, Defaults to **Binary**, mode to **unattended**, and Data to **fork**.

2. Set Palmtop up as server

After establishing the settings above, set your Palmtop up as a server by pressing **(MENU)** **C**onnect **K**ermit Commands and selecting **Put HP 100/200LX into server mode**. You are now ready to send files from your HP to the Mac.

3. Transfer files

On the Mac, under the File Transfer menu, select the **Get file from server** option. A dialog box will pop up asking for the file. Type in the path and file name you want to grab from the HP, click **OK** and the transfer will proceed automatically. [Mac users may be asking, "What does he mean by 'type in the path'," (I did when I started). For Kermit to locate the proper file, you must tell it exactly where the file is located. Specifically, it needs to know the drive, directory and subdirectory the file is found in on the Palmtop (directories and subdirectories appear as folders on the Mac). For example, to transfer a phonebook file titled MYPHONE from the default **_DAT** directory on the HP to the Mac, type the following in the MacKermit **Get file** dialog box: **C:_DATMYPHONE.PDB**

The **C:** identifies the C drive on the HP Palmtop (if you are getting a file from a memory card use **A:** instead); the backslash (****) is used to separate directory names; the **_DAT** indicates the directory; and **MYPHONE.PDB** is the file name in this example. The file name must include the file extension (**.PDB** in this example).

To backup an entire directory, you would use the **Get file from server** command on the Mac and type the following command in the dialog box: **C:*.***.

This command copies all files from your C drive to the Mac (you'll need to set up some destination folders on the Mac). Please note that subdirectories must be copied separately, so the **C:_DAT** directory will not be copied with the **C:*.*** command.

To copy all the files in the **_DAT** directory, enter the following in the **Get file from server** options box: **C:_DAT*.***.

To send a file from the Mac to the Palmtop, use the **Send File** command on the Mac. From DataComm on the HP Palmtop you can press **(MENU)** **F**ile **K**ermit **G**et and enter the path and name of the file on the Mac you wish to get. For more information on using the Macintosh with the HP Palmtops, including how to transfer files using ZTERM, see Vol.3, No.5 1994, pg.29.

Craig de Fassel

CompuServe ID: [76500,1440], America OnLine ID: PDA CRAIG

if it were another Macintosh drive. You can back-up your HP Palmtop's files onto your Macintosh's hard drive or a DOS-formatted diskette in the Mac's 1.4MB Superdrive through the Apple directory dialog box. (MacLinkPlus contact information can be found in this issue's Product Index on page 47.)

Bernie Kim
CompuServe ID: [71621,232]

CompuServe

95LX 100/200LX

World of support on CompuServe

The CompuServe Information Service (CIS) is a public-access computer system that offers a world of useful knowledge about your 95LX and 100/200LX through the HP Handhelds Forum. If you have a CompuServe account, access the forum by typing GO HPHAND. If you don't have a CompuServe account, you can obtain a free Introductory Membership by calling 800-848-8199. Ask for representative #231. International users can call 614-457-0802 (USA) or one of the numbers listed below:

Country	Phone number from within 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

CompuServe provides more than 1400 different information services. In the personal computing area, CIS forums cover the full range of hardware, software, and even paperware (magazines). Besides the forums for HP, you'll find IBM, Apple, Microsoft, Lotus, Borland, Novell... All told, there are more than 200 computer companies active on CompuServe.

The forums are great places to get questions answered, keep up with the latest from HP and other vendors, get

Detect - Plot Radiation On Your HP 100/200LX



Also available: LCD-60 Digital readout for use without computer, RM-70 & RM-80 pancake units, as well as other types of sensors.

Open a door to the fascinating world of nuclear science with the **RM-60 Micro Roentgen Radiation Monitor**. This palm-sized unit detects Alpha, Beta, Gamma & X-Rays. Displays 1000 times the resolution of survey geiger counters. Track **Radon** gas. Find sources. **Check food, water, ceramic coffee mugs for contamination** (eye opening). Plot Muon showers. Easy to setup and run.

Learn about radioactivity. Exciting computer application. Demonstrate alpha emission from smoke detector, beta and gamma emission from lantern mantle, other common items. Plot background cosmic rays, rocks, bricks, plane ride. Wipe tissue on T.V. screen then generate a beautiful decay plot of the collected Radium B (Radon daughter, half life: 27 mins.) Check TVs, CRTs for X-Rays (U.S. Dept. H.E.W. 21 CFR 1029.10).

Rugged and accurate digital circuitry, needs no adjustments. Draws a minuscule amount of power from HP's serial port. Cable extendible with telephone wire. Should last a lifetime.

Superb user friendly software including TSR program (run other programs simultaneously). Makes excellent dosimetry system, with alarm, real time graph, data logging and TSR. Medical personnel, slip in pocket when making rounds. Add strobe - siren to meet OSHA's reg. 29CFR 1910.96 & 1910.97. Used by medical waste facilities, cancer treatment centers, water & sewer plants, universities (lessons available), nuclear facilities, high schools, scrap handlers, hobbyists. Works with any PC. Thousands sold for over five years. Call or write for PC Mag. & Byte reviews.

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software updates, and tap into the wealth of public domain and shareware software. And unlike HP's support channels, the HP Forums are open 24 hours a day, seven days a week.

If you have used an electronic bulletin board system (BBS), most of the forum concepts will be familiar. Each forum has three main areas:

- Message boards, where you can read and write messages;
- Libraries, where you can find files;
- Conference rooms, where you can "meet" on-line with other users.

Ted Dickens
CompuServe ID: [76701,2720]

95LX 100/200LX

Strategies to keep cost down

CIS is not free, but some simple strategies can keep your costs within reason.

■ You have to choose your baud rate carefully on some bulletin board systems because higher baud rates sometimes cost more. However, CompuServe recently leveled the playing field by charging the same for all baud rates up through 14.4K.

■ Be selective about what you look at. In each forum you can select sections of interest. CIS will then only show you messages from those sections. Further, you can "scan headers" and only read

Sections in HP HAND

The following sections are available in the HP Hand forum:

- 1 **General** - messages that don't fall into one of the other sections or about using the forum.
- 2 **1x/2x/3x calcs** - messages about HP business calculators, like the HP 12C and HP 19BII.
- 3 **4x/6x/7x/9x calcs** - messages about HP scientific and engineering.
- 4 **95LX New Users** - messages about learning to use the HP 95LX Palmtop computer.
- 5 **95LX Datacomm** - messages about the 95LX Datacomm application.
- 6 **95LX Hardware** - messages about 95LX hardware.
- 7 **95LX General** - messages that don't fall into the other 95LX sections.
- 8 **100/200LX New Users** - messages about learning to use the HP 100/200LX.
- 9 **100/200LX Datacomm** - messages about the 100/200LX Datacomm application.
- 10 **100/200LX Hardware** - messages about 100/200LX hardware.
- 11 **100/200LX General** - messages that don't fall into the other 100/200LX sections.
- 12 **acCIS Support** - messages supporting acCIS, the CompuServe access program for the HP Palmtops.
- 13 **HPHAND Fireside** - informal area where members can discuss almost any topic.
- 14 **HPHAND Vendors** - messages/information relating to third party products for the HP Palmtops.
- 15 **Palmtop programmers** - messages for those interested in programming the HP Palmtop.
- 16 **Palmtop developers** - messages for those developing products for the HP Palmtops.

"threads" that sound interesting. You'll spend less time on line, and less money for connect charges.

- Use an automated access program. These programs are written just to access CIS and while they have different user interfaces, they share an underlying philosophy: Do it off-line. The programs log on, pick up the messages you want, then log off. You read and reply to the messages off-line, then the program logs back on and uploads the messages you have written. This can cut your CIS bill by 90%. (See next tip for more on automated access programs.)

- Make your introductory membership credit last even longer by using the GO PRACTICE command to get into the CIS Practice Forum. Not only will you find a "Sysop" (knowledgeable person in charge of the forum) who specializes in helping new users, you'll find lots of files of tips and tricks – and it's all free to any user. While you are in the Practice Forum, CompuServe suspends the normal connect charges. (You still have a phone bill.) So you can learn to read and write messages, etc., without paying for it.

(Overseas users, beware. Network charges are not suspended. In much of North America and some international sites, network charges are only 30 cents/hour. But for other places, the network charges can be significant.)

Ted Dickens
CompuServe ID: [76701,2720]

95LX 100/200LX

Automate your CompuServe access

An automated access programs can save you time and money on CompuServe. Here are some of them:

- acCIS/SM 3.0 – a powerful CompuServe access manager program, specially designed for use on the HP Palmtop PC. acCIS includes a "scripting" language that lets you automate access to special areas of CompuServe. This \$69 program runs under the Palmtop's System Manger. For more information, see acCIS in the Product Index on page 47.

- TAPCIS – is available in the TAPCIS Library (1) of the TAPCIS Forum (GO TAPCIS). TAPCIS is a shareware program (\$79) that runs on IBM and compatible computers, including the 100/200LX. Here are some tips:

1. Diet TAPCIS.EXE. It will go from 250K to about 122K.
2. The only files you really need for Tapcis to work are TAPCIS.EXE, TAPCIS.HLP and PARAMS.CIS.
3. Use a small USERID.CIS address book.
4. If you are logging on through a non-CIS network, like Infonet or Sprint, you will need one or two additional .SCR files, but those are usually small.

All these files should fit in less than 175K once you Diet the .EXE file.

It is extremely easy to setup on the 100/200LX. A definite minus is the 80 by 25 screen format, although you can Zoom to 64 by 16 when writing messages and in some other instances.

Jorge M. Trevino
CompuServe ID: [70142,1041]

- Navigator – is available from the CompuServe online store, and may be ordered online (GO ORDER). NAVIGATOR runs on Macintosh computers. NAVIGATOR costs \$50, and comes with a \$10 CompuServe usage credit.

Larry Lefkowitz

95LX 100/200LX

Using HP Palmtops on CompuServe

CompuServe has an ASCII mode that lets you log on with a simple terminal program such as DataComm on your HP Palmtop. HP makes this process easier by providing a configuration file (C:_DAT\COMPUSRV.DCF) on the HP 100/200LX which you can load from DataComm by pressing **[MENU]** **C**onnect **S**ettings **O**pen, selecting **COMPUSRV.DCF** and pressing **[F10]**. CompuServe has different access phone numbers dedicated to the speed of your modem (you're charged accordingly). Make sure you dial the number associated with your modem speed. You can call **800-848-8990** for the numbers in your area.

Key the phone number into DataComm and dial it by pressing **[F10]** (Connect). DataComm will report a successful CONNECT when CompuServe answers. At this point press **[CTRL]-[C]** and you will be prompted for your ID and Password. You receive these in the introductory kit that you can get by calling **800-848-8199** (ask for operator 231) or purchase it at your local computer store.

Once these have been accepted you'll

be given a Menu of selections. Moving around CompuServe is as simple as either entering the menu selection or using the GO and FIND commands. To get to the HP Handhelds Forum, you enter **GO HPHAND**. By entering HELP at any prompt you get a listing of available commands and their functions. By pressing **[F5]** (Capture) you can enter a filename and re-direct everything that appears on your screen to a file to be saved and read later. You can also type **GO PRACTICE** to access CompuServe's free practice section. You can use this section to traverse CompuServe menus, ask for help about using CompuServe, and practice until you get up to speed.

Mark Scardina
CompuServe ID: [76711,732]

Other On Line Services

95LX 100/200LX

Nybble's Byte

This electronic bulletin board system is dedicated to HP handhelds and Palm-tops. It supports HP 48, 95LX, 100/200LX, 28, 41, 71, 75, etc. Contains an assortment of HP palmtop files, HP 48 Goodies Disks, and much more.

Hours of operation are US Central Time: Sun-Thurs except 7-10-pm; Fri & Sat except 12-10pm. The BBS phone number is 708-304-0666.



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95LX 100/200LX

Access

The ACCESS BBS of the University of Alabama in Huntsville has opened a files conference (#17) on HP's line of handheld products, including the 28 and 48 calculators and the 95LX and 100/200LX Palmtops. This is a community service BBS dedicated to the advancement of personal computing.

The sysop is Jim McCullars. The BBS's phone numbers are: for 300-2400 service, 205-895-6152; for 9600-14400 V.32bis, 205-895-6992.

100/200LX

America OnLine

America OnLine's (AOL) offers a PDA/Palmtop Forum. The Keyword once you sign on is PALMTOP, which takes you directly to the Forums message boards, tips area, conference room and libraries.

The rates for AOL are very reasonable, and new members are given five hours online time plus the first month's base charge of \$9.95 FREE. After the first month the rates are \$9.95 for the first two hours of usage and then \$2.95 per hour. There are no additional surcharges for the use of the service regardless of time of day. AOL offers Internet Newsgroups, FTP, and soon will have World Wide Web access.

We would appreciate your E-Mailing (or regular mailing) Palmtop-related programs, files, and tips so we may upload them to the HP Libraries. Please include a brief description (noting any special requirements) of the program so we can post an exciting preview of the file.

Craig de Fassel
CompuServe ID: [76500,1440]
America OnLine ID: PDA Craig

100/200LX

Accessing AOL with the HP 100/200LX

America Online provides its own communications software free of charge, which you must use to interface with AOL. The current, AOL DOS 1.6, works with the HP 100/200LX. Unfortunately, HP 95LX users cannot access AOL.

The PDA Forum staff has uploaded to the PDA library a specially configured version of AOLDOS 1.6 (AOL16HP.ZIP (PC format) and AOL16HP.SIT (Mac format)). This version has most of the unnecessary drivers removed to reduce the size and comes with special install

and operation instructions for the HP 100/200LX.

Version 1.6 does cut off some of the screen at the very bottom, but I was able to use and view everything that I needed to, as well as access AOL at 9600 baud from the HP Palmtop. [For more about using the HP Palmtop to access AOL see Vol.3 No.6 pg 34.]

Jeff Zorn
CompuServe ID: [[71165,1650]
AOL ID: FC Jeff

100/200LX

Prodigy

Prodigy is an on-line service available in the U.S., a joint-venture of IBM and Sears. To use Prodigy (often abbreviated as P*), you must have an Apple or IBM compatible computer and a modem. Prodigy software will not run on the 95LX, but some users have run it on the 100/200LX.

The main advantages of Prodigy over CIS is its lack of on-line access charges and its ease of use. Anybody can run Prodigy, including small children (who love the graphic interface and find it entertaining).

Prodigy has a small number of special interest bulletin boards (BBS) similar to the CIS forum message sections. Questions and comments regarding the HP Palmtops are posted on the Computer Club BBS. The best topic to use is **Hardware: Systems**, although Palmtop messages are also found under **Other PC Topics**.

Prodigy has a base cost of \$9.95 per month for 5 hours of Prodigy use per month with unlimited messages. Additional hours are billed at \$0.05 per minute or \$2.95 per hour. The first month is free, including 10 hours. It is only available in the US and Canada. The startup kit is free, including software, and can be ordered by calling 1-800-776-3449.

Prodigy is also in the process of adding Internet access. For more information you can also contact Prodigy Information Services, 445 Hamilton Ave., White Plains, NY 10601.

Dave Shier
Prodigy ID: CXBG88A.
CompuServe ID: [75030,3374]

100/200LX

Prodigy runs on the HP 100/200LX

I ran the Prodigy P* install program specifying the hard disk on my old notebook computer. (Installing to a floppy won't work.) The install program allows

you to save space, a necessity on the 100/200LX, but at the cost of speed. Yes, you have an option to make P* slower!

After creating a set of Prodigy files on the hard disk, I copied them to my RAM card. You must terminate System Manager (press [F10] [MENU] Application Terminate All [ENTER]) to run Prodigy on the 100/200LX, but it works fine.

David Shier
CompuServe ID: [75030,3374]

[This software comes with a Prodigy installation kit. See Product index, page 47 - Rich.]

95LX 100/200LX

Internet

[The following was taken from Bob Chernow's article "Cruising The Internet with the HP Palmtop" in Vol.3, No.6, Pg.16]

The Internet is not really a single communications network, but a conglomeration of many smaller networks cooperating with each other to allow message and file transfers throughout the world...

Delphi

Delphi is probably the one service that offers close to a complete connection. Delphi allows you to transfer files and messages across the Internet. It offers access to "Gophers" (protocols for searching the Internet) and even lets you log onto computers in other Internet locations (Telnet) and run programs on other computers.

To join Delphi, connect your 100/200LX to a modem and use Datacomm [MENU] Connect Settings Phone type in 1-800-365-4636, [ENTER] and [F10] to connect. At the login prompt reply JOINDELPHI, at the password prompt reply INTERNETSIG. Press [Fn]-[Spacebar] to zoom to 80 so you can read the full screen messages. On the 95LX you can connect, but it will only be displayed in 40 colums, so you'll have to move around the screen using the Alt-arrow keys. To connect press [COMM] [MENU] Connect, type in atdt 18003654636 and press [ENTER].

Delphi has varying rates ranging from \$10/month for 4 hours to \$20/month for 20 hours.

Other Internet access providers

America On Line, CompuServe Information Service and Prodigy are all adding more Internet access. These major online services are trying to entice users by offering more and more Internet services. They may become the best choices

in the near future.

There are many dedicated providers available, with more showing up every day. The easiest way to get the current list requires you to at least have E-mail access to the Internet. Send E-mail to info-deli-server@netcom.com. The text of the E-mail should read "Send PDIAL." You will receive the current public service providers list by return E-mail.

The best connection method for a Palmtop user depends on what his or her Internet requirements are. The FreeNet is the cheapest. A dedicated shell account is probably the most powerful method for a Palmtop, but more expensive.

If you are lucky, you live in an area that has a FreeNet. You will be able to get fairly extensive Internet access for free. Most FreeNets are menu driven and very easy to use. Most offer Newsgroups, Telnet, File Transfer, and tons of local area information. Many FreeNets are set up and run by local government, libraries or universities.

The FreeNet list in Vol.3, No.6, Pg. 17 is by no means complete since FreeNets are being created more frequently, with the increasing popularity of the Internet.

Internet Resources for the HP Palmtop
As I mentioned earlier there are three major areas of the Internet: Usenet, FTP, and E-Mail. Let's see what each has to offer to HP Palmtop users.

USENET and the HP Palmtop
There are at least two Newsgroups that will cover usage of your Palmtop. They are [comp.sys.palmtops](#) and [comp.sys.handhelds](#). Both of these cover the HP Palmtop, but they also cover other brands of Palmtop computers. Some lively discussions can ensue comparing the different models. The [comp.sys.handhelds](#) Newsgroup is the livelier of the two, with about 2-3 times the message traffic. This is also where the HP FAQ (Frequently Asked Questions) list comes from.

FTP and the HP Palmtop
There are quite a few FTP sites that carry HP (and other palmtop) files with the most popular ones being [eddie.mit.edu](ftp://eddie.mit.edu) and [ftp.cc.monash.edu.au](ftp://cc.monash.edu.au).

E-mail and the HP Palmtop
With Internet E-mail, you can keep in touch with many of the HP Palmtop Paper authors and with many of the HP Palmtop Developers, including the following individuals:

Hal Goldstein
75300,2443@compuserve.com
Andy Gryn

aridyg@hp.cv.com
Mark Scardina
76711,732@compuserve.com
Bob Chernow
pcbobb@gate.net

For Questions or Comments you can reach me, Bob Chernow, at the above address. See you in Cyberspace! Also, refer to Vol.3, No.6, Pg. 16 for more information on the Internet.

Printers

95LX 100/200LX

General tips for printing from the HP Palmtops

The procedure for connecting an HP Palmtop to a printer is relatively straightforward, and discussed in the documentation (see "printing" in the *HP Palmtop User's Guides* index.) A few other points are worth mentioning:

1. To connect the Palmtop to a serial printer: use HP's Serial Interface Cable (HP F1015A). This cable was designed for the 100/200LX, but HP supplies a small

10-pin-to-4-pin adapter that allows you to use it with the HP 95LX. The small 10-pin end goes into the 100/200LX (use the 10 to 4 pin adapter with the 95LX). You will also need the correct 9-to-25-pin adapter to connect the 9-pin end of the serial cable to the 25-pin printer port. We used the Printer Adapter from the HP Connector/ Adapter kit (HP F1023A) to connect the serial cable to the Kodak Diconix 180si serial port. The desktop HP LaserJet series also has a serial interface.

2. Configure the Palmtop: On the 95LX press **SETUP** **Printer** **Config** **Name** and select either the (Epson FX80), (IBM Proprinter), or (HP LaserJet), depending upon which selection your printer emulates (check your printer manual if you're not sure). On the HP 100/200LX press **[F1]**, **SetUp**, **MENU**, **Options**, **Printer...** and select the printer, baud rate, and interface. Make sure your interface is set to (COM1). Make sure the Baud rate on your Palmtop is set the same as your printer's (usually 9600).

3. Configure the printer: Printer settings are very standard and you may want to

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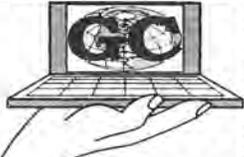
<p>HP200LX Palmtop PC: F1061A HP200LX/2Mb \$ 649.00 F1060A HP200LX/1Mb \$ 495.00</p> <p>HP Omnibook 600 SuperPortable PC: F1065A 4Mb RAM/170Mb \$2579.00 New! F1066A 8Mb RAM/170Mb \$3269.00 New! F1110A 4Mb RAM/260Mb \$2969.00 New! F1111A 8Mb RAM/260Mb \$3549.00 New!</p> <p>HP Accessories for HP200/100LX: F1021B Connectivity Pack \$ 99.95 F1011A AC/DC Adapter \$ 31.95</p> <p>HP Flash Cards for all HP Portables: F1012A 5/10Mb \$ 359.00 F1013A 10/20Mb \$ 559.00 F1014A 20/40Mb \$ 949.00</p> <p>SunDisk/Seagate Flash Cards: ST75P5 5Mb Uncompress \$ 329.95 ST710P5 10Mb " \$ 499.95 ST720P5 20Mb " \$ 949.00 ST740P5 40Mb " \$1349.95</p>	<p>HP Accessories for Omnibook: K4/530 4Mb RAM Exp. \$ 295.00 K8/530 8Mb RAMExp. \$ 545.00 New!</p> <p>EXP ThinFax 14.4 for HP200/100LX! EXP200 14.400bps Fax & Modem \$299 EXP200/2 Same as above w/2Mb RAM \$359 EXP200/4 Same as above but 4Mb RAM \$399 <i>This is the ONLY Fax/Modem for send & receive faxes that works on HP's Palmtops</i></p> <p>The Executive Leather Cases: XLC100 For HP Palmtops \$ 59.95 XLC200 For HP Palmtops \$ 29.95 New! XLC300 For Omnibooks \$ 69.95</p>
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skip this step and come back to it if your print test fails. To configure the printer, make sure the printer's baud rate is the same as the Palmtop (9600). Make sure your printer uses these settings: 8 bits per character, 1 stop bit, no parity, XON/XOFF software handshaking enabled, and hardware handshaking disabled.

4. Turn the printer on: (Off and on again if you've changed settings in point 3 above). Make sure the printer is on line.

5. Test print: Press PRT SC (**<Shift>-ESC**) on the 95LX or **Fn-0** on the 100/200LX to send your current screen to the printer. You may have to take the printer Off Line and press the Form Feed button to eject the page from the printer. If this test works, you're ready to go. If the test fails, try printing from MEMO (In MEMO on the 100/200LX press **[MENU] File Print**. On the 95LX press **[MENU] Print**.)

Print Test Fails: Troubleshooting

- Make sure printer is On and On Line.
- Make sure the connection between the Palmtop is correct and tight.
- Make sure the Palmtop and printer are configured properly, points 2 & 3.
- 95/100/200 Buddy users – see Buddy Manual to make sure PRT SC (**<Shift>-ESC**) is enabled or test by printing from MEMO.
- Call printer or HP technical support.

Printers with Parallel Ports

Most printers do not have serial ports. To connect the Palmtop to a parallel port printer you need a serial-to-parallel adapter:

- **BSE Serial/Parallel Adapter** – Ace Technologies
- **Convertor Cable** – Imaging Supplies Express
- **GA 935** – Greenwich Instruments
- **Paralink 3** – WIDGET Software
- **Sparcom Print Station** – price varies, with serial/parallel adapter

[See Product Index page 47 for complete contact information.]

Procedure

1. Connect the Centronix end of the adapter to the printer's parallel port. Connect the Palmtop to the connectivity cable. Connect the 9-pin end of the cable to the serial-to-parallel adapters.

2. We used this procedure to print to a Canon Bubble Jet printer. We had to use an additional Centronix-to-25-pin adapter

to connect the serial-to-parallel adapter to the Citizen PN48 Printer's non-standard parallel port.

3. Select the proper printer driver for the printer you are using, Epson FX-80, HP LaserJet, or IBM ProPrinter. Most printers will emulate one of these three. They can be selected in Setup on either Palmtop: on the 95LX press **<Shift>-FILER** Printer Config Name; on the 100/200LX press **[CTRL]-FILER [MENU] Options Printer <Tab>**; then use the arrow keys to select the printer.

95LX 100/200LX

Do you really need a printer on the road?

There are already millions of computers and printers all over the world – in the businesses you visit and in the hotels you stay in. Here are some alternatives to carrying a printer along with you.

1. Postpone all unnecessary printing chores until you get home.
2. Upload files, via modem, to your office back home and have your assistant format, print out, and send your correspondence wherever it needs to go. (You'll need to carry a serial cable, 9-25 pin modem adapter, and the modem along with you.)
3. Transfer the file you want printed over to someone else's computer and have them print it out on their printer. (You'll need to carry a serial cable, and file transfer software with you.)
4. Use someone else's printer. (You'll need to carry a serial cable, serial-to-parallel adapter, and the HP adapter kit with you to connect directly to someone else's printer.)
5. Carry a small, portable fax/modem with you and fax the page you want to print to a local fax machine (in the hotel lobby or at the business you're visiting). (You'll need the fax/modem, serial cable, and the necessary adapters.)

95LX 100/200LX

Print to HP infrared printers

Subscriber Dave Marsh developed a printer utility (IRPRT.COM ) that does allow you to print to the HP Infrared Printer from the 95LX. In addition, subscriber Thomas Rundel has developed IRPRNT.ZIP , that lets 100/200LX users print text files and the contents of the

clipboard to HP 92240A and 82240B infrared printers.

100/200LX

Using Smart Clip to print

The 100/200LX includes a subtle, but powerful feature called SmartClip, which lets you select which fields are to be copied to the Clipboard, and format those fields. (For an example of defining a Smart Clip, see "Smart Clip, definition" in the index of the *HP 100/200LX User's Guide*.) One way to print information would be to define a Smart Clip, use it to copy formatted records into MEMO and print from there.

When you print from PHONE, APPT, or any database application, you can choose to print in **List** or **Custom** format. Press **[MENU] File Print** to bring up the Print dialog box. Tab to the Style box and use the ArrowKeys to select **List** or **Custom**. The Custom option lets you select any of the Smart Clip layouts you have defined. The Print dialog box lets you control page length, margins and setup strings – it even lets you print to a file.

Ted Dickens

CompuServe ID: [76701,272]

95LX 100/200LX

Printing to Mac Printers

Both the HP 95LX and 100/200LX can print directly to a non-AppleTalk ImageWriter I or II using the F1016A cable. Set the HP's serial port to **9600,N,8,1** and select **Epson FX-80** as the printer driver in Setup. Some LaserWriters may work if they support a straight serial connection. For example, a Personal LaserWriter NT lets you configure its serial port like a LaserJet port. Select the LaserJet printer driver on the HP Palmtop and you can print to this printer.

Of course, the greatest printing flexibility can be obtained by transferring the files to your Mac and printing translated files from the Mac. For example, to print your phone or appointment files, first use the **print to file** option on the HP, then transfer that file to your Mac. Run the file through DOSWasher to convert the text. Use a Mac word processing application to make any desired format changes and print from the word processor. For more on using the HP Palmtops with the Macintosh see Vol.3 No.5, Pg.35.

Craig de Fasselle

CompuServe ID: [76500,1440]

America OnLine ID: PDA Craig

MS-DOS Operating System

100/200LX

Maximizing system RAM for DOS use

[The 200LX uses the same basic methods for accessing and maximizing DOS, but may show minor differences in memory available.]

On the 100LX there are seven methods to access DOS summarized in the following table. Each method makes a different amount of memory available to DOS. In addition to this there are other things which consume DOS memory; making those things smaller gives more System RAM space for DOS programs. Caution: changing some of these configuration values can adversely affect system performance. Back up the system before experimenting.

CONFIG.SYS

As with any MS-DOS system, the 100-/200LX uses some memory for open files, disk buffers, and drive designations. When an MS-DOS machine boots up it looks for a CONFIG.SYS file and if it finds one, it then looks for an AUTOEXEC.BAT file. Both of these files can contain DOS commands that affect the amount of memory that DOS uses. By controlling these values in your C:\CONFIG.SYS file, you can free up additional DOS program space. NOTE: If you create C:\CONFIG.SYS, you should copy D:\AUTOEXEC.BAT to C:\AUTOEXEC.BAT. Otherwise you'll be left at the DOS prompt when you reboot your system.

The DOS commands that can be adjusted to increase useable memory in the CONFIG.SYS file on the 100/200LX are, FILES=, BUFFERS=, and LASTDRIVE=:

- FILES = DOS needs roughly 56 bytes to keep track of each open file handle, internal file identifier. By default, the 100/200LX sets up for 25 files, using 1520 bytes in the process. Setting FILES= to a lesser number frees up System RAM, but can be counterproductive since we are trying to make space for DOS programs and many of them use multiple file handles.
- BUFFERS = DOS uses RAM buffers to speed I/O to hard disks. Since the 100/200LX uses only RAM disks, buffering has less of an impact. Re-

ducing the number of buffers frees up more System RAM.

- LASTDRIVE = By default, the 100/200LX sets up for 10 logical drives: A: through J: and in the process chews up 896 bytes. Setting LASTDRIVE=D frees up 432 bytes.

AUTOEXEC.BAT

The default AUTOEXEC.BAT is fairly innocuous, but it has a line that is a bit odd. The line **assign e:=a:** tells the 100/200LX to access the A: drive whenever software attempts to access the E: drive. There's nothing wrong with the statement, but there are few places where it would be useful and getting rid of it frees up 1600 bytes.

SYSTEM MANAGER SET UP

There are changes you can make to System Manager Setup that will free up more System RAM. In general, once you make the configuration change to Setup, you will have to reboot for the change to take effect. The Clipboard, DOS, and Static settings are made from the Advanced memory options of Setup; run Setup, then select **[MENU] Options System Advanced...**

- Clipboard – is used by the Cut, Copy, and Paste functions of System Manager applications. The default size is 4K. Reducing it to 2K frees up 2048 bytes.
- Static – The "Static RAM" area is for applications which need static RAM. While you can set Static to 0 kilobytes, it will still reserve 1760 bytes, leaving an additional 8,480 bytes free.
- DOS – the DOS setting in the Advanced menu controls the default size of the DOS box.

Summary of Methods of Accessing DOS from the 100LX (Values for the 200LX may differ slightly)				
Method	Default DOS memory	Maximum DOS memory	Run other Apps?	Switch to other Apps?
1. Press [CTRL]-[123] or select DOS icon in AppMgr	95,408	452,784	mem	yes
2. In FILER press [MENU] Options DOS	418,528	452,944	before	yes
3. Highlight DOS application in FILER, press [ENTER]	421,328	455,744	before	yes
4. Launch program icon from Application Manager	95,408	435,632	mem	yes
5. In 1-2-3, press [MENU] System	307,920	342,366	no	no
6. In AppMgr press [MENU] Application Terminate	620,160	634,272	n/a	n/a
7. Press [CTRL]-[ALT]-[DEL] Press [ALT] for "boot options" Select option 6	626,240	626,240	n/a	n/a

■ **Default DOS mem:** The amount of memory available to the DOS application with the default 100LX configuration. ■ **Maximum DOS mem:** The amount of memory available to the DOS application with the recommendations followed. ■ **Run other Apps?:** **no:** Can't run other applications before or after launching the DOS application; **before:** Can only run other applications before launching the DOS application; **mem:** Can run other applications if there is memory available; **n/a:** Not applicable. ■ **Switch to other Apps?:** **yes:** Can switch to other applications after launching the DOS application; **no:** Can't switch to other applications after launching the DOS application; **n/a:** Not applicable.

- Redirector – If you don't use the HP 100LX Connectivity Pack you can disable the Redirector and gain 9760 bytes. To disable the Redirector, run Setup and select **[MENU] Redirector Disable Server**. (Reboot to make the change take effect.) *[There is no Redirector in the 200LX.]*

Ted Dickens
CompuServe ID: [76701,272]

100/200LX

Changing the size of the "DOS box"

To change the size of the DOS box, go into Setup. Select **[MENU] Options System Advanced DOS**. (If there are other applications open, you'll get a warning message which you can safely ignore; just press OK and continue.) Specify the DOS box size in kilobytes (K). (NOTE: While the prompt says you can specify values up to 512K – it's a myth. If you specify a value larger than available System memory, attempting to create the DOS box just causes a beep. The actual maximum value varies, but with the default configuration, the maximum usable value is 413K.)

Ted Dickens
CompuServe ID: [76701,272]

100/200LX

Find DOS help

The HP 100LX and 200LX come with the MS-DOS 5.0 operating system built-in. Almost all of the DOS 5.0 commands will display a brief "help" description when you follow the command with **/?**. For example, exit to the DOS prompt, type **dir /?** and press **[ENTER]** to see the following summary of the DIR options.



DIR help display, 100/200LX

By using this help feature you'll find many useful options for the DOS commands.

Stanley Dobrowski
CompuServe ID: [71031,2162]

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95LX 100/200LX

How to get back to System Manager from the DOS prompt

When you load software onto your HP Palmtop, many programs, such as Switch, ACT!, or the HP Palmtop Paper Subscribers Disk add an AUTOEXEC.BAT file or modify your existing file. If your AUTOEXEC.BAT file gets further changed, or deleted and you press **[CTRL]-[ALT]-[DEL]** to reboot, you may end up in DOS without any way to access the regular built-in applications.

You must return to the System Manager in order to use the built-in applications. To do so from the C:\ prompt, type **\$sysmgr** on the 95LX or **100** on the 100LX or **200** on the 200LX and press **[ENTER]**. This starts System Manager and allows you to use the built-in applications.

You should then call your AUTOEXEC.BAT file into MEMO and make sure that it has **\$sysmgr** or **100** or **200** commands as the last line of the file. You may have to create a new AUTO-EXEC.-BAT file if your original file has been deleted.

Larry Tachna
CompuServe ID: [76520,1630]

95LX 100/200LX

Where to put AUTOEXEC.BAT and CONFIG.SYS files

If you have a memory card I recommend keeping AUTOEXEC.BAT and/or CON-

FIG.SYS in A:\. If something goes wrong, and you can't boot from the A drive, you can just pull the card and reboot with a plain configuration.

Ted Dickens
CompuServe ID: [76701,272]

100/200LX

Cut and Paste between DOS programs and built-in applications

ClipVue  is a small 100LX.EXM utility that allows loading the 100/200LX clipboard from a file, and saving it to a file. This file can in turn be read from or written to by DOS applications that normally don't have access to the SysMgr clipboard. ClipVue can also be used to take a quick glance at clipboard contents in text format before doing a paste.

Gilles Kohl
CompuServe ID: [100114,3146]

100/200LX

DOSKEY: What It Is

DOSKEY is a Terminate and Stay Resident (TSR) program that lets you recall, edit and run DOS commands, and create and run macros. DOSKEY is found in the D:\DOS directory of the HP 100/200LX. The program itself is in ROM, so it takes up no additional disk space. When it's loaded into RAM, it uses anywhere from 3 to 6K bytes of memory.

DOSKEY gets a mere two line mention in the *HP 100LX User's Guide*, and

the *HP 200LX User's Guide*. An MS-DOS User's Guide will give you more information, and you'll also find a synopsis of the DOSKEY commands and a description of how to use DOSKEY Macros on pages 44-49 of Sept/Oct 94 issue of the *Palmtop Paper*.

If you just want to play with the program to see what it's like, press **[&...]** **[MENU]** Application Terminate all... OK, then type the command:

```
d:\dos\doskey /insert /bufsize=1024
```

and press **[ENTER]**. INSERT specifies that any new text you type in a DOS command line is inserted in between old text, pushing the old text to the right and not erasing it. If you would rather copy over old text, eliminate this command. BUF-SIZE= 1024 gives you a larger buffer to remember more previous DOS commands.



DOSKEY list previous DOS commands

If you decide to use DOSKEY as a permanent part of your MS-DOS repertoire, put the above command in your AUTO-EXEC.BAT file, and reboot by pressing **[CTRL]-[ALT]-[DEL]**.

Ed Keefe
CompuServe ID: [75300,3667]

C: DOS Programs

95LX 100/200LX

Running DOS programs on the HP Palmtops

HP 100/200LX:

For a DOS program to run on the 100-/200LX it must be able to display in either Monochrome or CGA compatible mode and run on an 8086 CPU. Programs that need a 286-or-greater CPU and must display in EGA or VGA modes will not work on the 100/200LX. Check the documentation of your application for the "Minimum System Configuration Required."

In addition, the necessary program files must be able to fit in the Palmtop's available disk space. This is not much of a problem if you have a RAM card, but can be if you are storing all of your files

on the C: drive. Check the software's documentation, you may be able to save space by eliminating unnecessary files, such as documentation, install, fonts, help, etc. Also, the program's documentation may list files that may be deleted after installation.

HP 95LX

The HP 95LX can run some, but not all DOS programs. The DOS program will have to be able to run on an 8086 CPU, and display properly on the 95LX's smaller 16x40 MDA (Monochrome Display Adaptor) screen. In addition, the program will have to physically fit on the Palmtop's C drive and be able to run on the limited system RAM available. It is a good idea to store larger DOS programs

on a PCMCIA memory card, allowing you to configure the System RAM as high as possible.

You may have to adjust the amount of RAM available or bypass System Manager to get enough memory to run some programs. Programs that use the serial port can fail if they use interrupts or try to access COM2. Programs that require Expanded Memory or Extended Memory will not run on the 95LX.

For more on running DOS programs on the HP 95LX, please see "Running a Program from Filer," on page 20-12 of the *HP 95LX User's Guide*.

Rich Hall
Editor, *The HP Palmtop Paper*

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Programming Languages

95LX 100/200LX

Built-in programming languages

You don't have to use an "imported" language to program your HP Palmtop. Believe it or not, the 95LX and the 100/200LX contain no less than five built-in programming languages: HP Calc's Solver language; Lotus's macro language, DEBUG's arcane assembler, System Macros (SETUP's CHAR language on the 95LX and Fn-key language on the 100/200LX), and DOS's batch command language.

■ **Lotus Macro Language** — without a doubt, this 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.

■ **Debug** — trying to master assembler language programming with DEBUG is best left to experts, such as Palmtop Paper contributor Ed Keefe.

■ **User Keys/System Macros** — these are limited to the size of the editing buffer, 255 key strokes. On the 100L/200X you can link System Macros to go beyond the 255 key barrier.

■ **Solver** — Solver's language is great for developing quick-and-dirty solutions to problems that can be solved with a busi-

ness calculator. However, Solver is not a full-blown language. It doesn't have any obvious ways to create loops and branches, although clever uses of its built-in functions can do quite a bit.

■ **Batch files** — perhaps the least appreciated programming language in the HP Palmtop 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.

Thomas Page

CompuServe ID: [73277,1064]

95LX 100/200LX

Programming languages

The following are programming languages that have been used on the 95LX and the 100/200LX (see *Product Index*, page 47 *this issue for more information*). Some were tested on the 95LX, but all should run on all three Palmtops:

■ **Assembler** — Those who want to try their hand at using Assembler on the HP 95LX or 100/200LX should take a look at **Microsoft Assembler (MASM)** and Borland's **Turbo Assembler (TASM)**. The HP Independent System Developers documentation gives examples using Microsoft's MASM to write System Manager Compliant programs. (Vol.2, No.5, Pg.28)

Ed Keefe

CompuServe Id: [75300,3667]

■ **AWK** — Originally a UNIX pattern-matching utility, AWK grew into a powerful programming language eventually ported to the PC environment. AWK.ZIP is a collection of useful AWK programs for the HP 95LX, including code for an Editor. (Vol.2, No.5, Pg.28)

Ed Keefe

CompuServe Id: [75300,3667]

■ **Aztec C** — A bare minimum of the Aztec C files fit on my 512K HP 95LX Palmtop as follows:

CC.EXE — compiler (50,640 bytes, 31,373 using DIET)
AS.EXE — assembler (45,152 bytes, 27,856 using DIET)
LN.EXE — linker (18,928 bytes, 11,657 using DIET)
C.LIB — c library (33,536 bytes)
M.LIB — math library (24,704 bytes)

Upgrading to a 1MB 95LX allowed the addition of:

G.LIB — graphics library (4,992 bytes)
S.LIB — screen library (5,760 bytes)

To conserve space I created my own header files that contained only the material needed to compile the programs I developed. I use the Palmtop's built-in

Meom text editor to edit code. (Vol.3, No.5, Pg.53)

Melvin R. Rooch

CompuServe ID: [73064,2113]

■ **GWBasic** — It only uses 80K of disk space, and you can DIET it to 62K. You can also benefit from GWBasic's abbreviated typing and press **[ALT]** and a letter to obtain a whole word (i.e. **[ALT]-P** = Print, **[ALT]-I** = Input). This feature is much easier to use if you have the STICK.COM utility. (Vol.2, No.1, Pg.50)

Pablo Miras

Buenos Aires, ARGENTINA

■ **Personal C Compiler Support** — PCC is a popular shareware alternative to Microsoft C and Borland C. Registered users receive a usable debugger, and some other utilities. (Vol.2, No.5, Pg.30)

Ed Keefe

CompuServe Id: [75300,3667]

■ **Pygmy Forth** — Pygmy Forth by Frank Sergeant is a small (about 16K) version of the Forth programming language enhanced for the HP 100/200LX. It includes an assembler, editor, metacompiler, and complete source code all written in Forth. This lets you customize the entire system and is powerful enough to do almost any task. (Vol.3, No.6, Pg.58)

Robert S. Williams

CompuServe ID: [76167,2773]

■ **QuickBasic** — I use QuickBasic 3.0. It's an older program, but it does everything I want and it's smaller than current programs. To run QB and compile programs, I have to take the SYMGR out of memory. I used Diet to slim down both QB and the finished .EXE programs. (Vol.3, No.4, Pg.42)

Tad James, M.S., Ph.D.

CompuServe ID: [73160,352]

■ **Util Forth** — Version 3.0 of UTIL Forth, only available for the 95LX, will let you write System-Manager compliant programs. Including a small interpreter/compiler, a small library, and a built-in assembler/disassembler, the whole package runs in less than 30K bytes of RAM. MEMO serves as the editor for writing Forth programs. (Vol.1, No.1, Pg.31)

95LX 100/200LX

Programmers support on CompuServe

I strongly suggest that all Palmtop programmers check out the programmer's section of the CompuServe HP Handheld forum. There, programmers congregate and answer each others' questions and upload support files.

Hal Goldstein

Publisher HP Palmtop Paper

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** If you decide to use shareware, you will need to pay the author a fee, usually between \$5 and \$45, a fraction of the cost of equivalent commercial programs.



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Software on the *Best Palmtop Tips ON DISK*

Product	Description		
BESTTIPS	Text of the Best Palmtop Tips 1995.		
UTILITIES			
APPLICATIONS:			
CLOCK	Full screen system compliant digital clock.	BUDDY	Adds 100's of useful features to 100/200LX.
COMMO	Powerful comm program for the 100/200LX.	ADBIO	Convert Appt file to/from comma-delim format.
ICON	Draws "icons" for 100/200LX AppManager.	ALARM	Musical alarm sounds for 100/200LX.
KERM2	PC comm program with VT102 emulation.	APLOAD	Makes 100/200LX AppManager flexible.
KERMIT	Macintosh communications program.	ASERCL	Adds serial port control for the 100/200LX.
LIST	Text viewer with many features.	BAT100	Reports status of 100/200LX batteries.
PCOUTL	Outliner program helps organize your work.	BATSET	Reset the charge time on the 100LX.
QEDIT	Word processing program.	CLIPVU	Makes clipboard work with DOS programs.
SHASS	Automates shopping on the HP 100/200LX.	CLSFLR	CloseFile recovers memory on 100/200LX.
SSFAX5	Fax program for the 95/100/200LX.	DBIO	Graphic interface for DBUTIL and ADBIO.
VDE171	A compact and powerful Memo alternative.	DBUTIL	Import/export to the DataBase program.
VR100	Vertical text reader for the 100/200LX.	DIET12	Diet 1.20 file compression utility.
DATABASE FILES & LOTUS TEMPLATES			
COVEY	A goals tracking database (.GDB) file.	DIET145F	Diet 1.45f file compression utility.
_HPWK1	Lotus worksheets for all Palmtops.	FASTDB	Speeds up Phone, Appt, and DataBase.
TODO	A sample ToDo list database (.GDB) file.	FATR	Changes file attributes.
GAMES			
AG	Contains Chess and Space Invaders.	FCL	Lets you modify 100/200LX fonts.
KLON	Standard 7 pile Klondike solitaire.	GARLIC	Fix corrupt Phone/Appt/Database files.
REVER4	Reversi, an outflanking game.	GDBIO	Import/export 100/200LX Database/Phone file.
SOKOB-LX	Travel through maze pushing blocks.	HELV	Alternate 100/200LX screen fonts.
TETRIS	Tetris game, runs sideways on 100/200LX.	HLVSRG	Contains alternate 100/200LX font.
TYPER	Improve typing on the Palmtop.	HPMNU	Graphical DOS Menu program.
PROGRAMMING			
AWK	High level programming language.	IRPRINT	Print text, clipboard files to HP IR printers.
PCC	C-compiler for the Palmtops.	N2GDB	Read DataBase files in NoteTaker.
PROHLP	Tool to help programmers.	NOMURA	Vertical Reader fonts (bold, tiny & script).
PYGMY	Small Forth language compiler.	PK204G	File compression and archive utility.
		REMCOM	Make Palmtop a TV/VCR remote control.
		REMKEY	Run your 100/200LX from a desktop PC.
		SPEL95	Spell checker.
		STICK	Make ALT/CTRL keys "sticky."
		TIMOUT	Lets you change auto shutoff time.
		UNZIP	Lets you decompress .ZIP files.
		ZIP	A file transfer program for all HP Palmtops.

TO ORDER use the tear-off order card to the left.

YOU CAN PURCHASE BEST PALMTOP TIPS ON DISK SEPARATELY!

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\$33 (includes shipping, non U.S. add \$4)

THE
HP Palmtop
Paper **ON DISK**

A SUPPLEMENT.
NOT A SUBSTITUTE.
FOR THE PRINTED EDITION.

Getting Support

There is a great support network for the HP Palmtops. It starts with HP's own technical support (503-715-2004), which is free. Their support policies are described below.

The HP Palmtop Paper and the HP Palmtop Paper OnDisk provide a steady stream of information and access to software for Palmtop users throughout the year.

The online services: CompuServe Information Service, America OnLine, Prodigy, and Internet, have areas dedicated to Palmtop users. CompuServe has the most active area (GO HPHAND), America On Line has a growing and supportive forum (PDA). (See the Communications section, pages 32-35 for details.)

HP Palmtop service agreements

HP offers the following support service agreements for the HP Palmtops:

The HP 95LX (512K and 1MB versions) come with a one-year warranty. While the unit is still under warranty, you can purchase a one-year extension for \$50 or a three year extension for \$135.

If your unit is no longer under warranty and you send it in for repairs, any repairs made are covered by a 90-day warranty. Within that 90-day warranty, you can purchase a service agreement extension.

The HP 100LX and HP 200LX come with a one-year warranty with HP Express Exchange service. Under Express Exchange, if you have a defective unit, call HP technical support at 503-715-2004. They determine if your unit is defective and arrange to ship a replacement unit to you via Overnight Express. When you receive the replacement, take it out of the box, put your defective unit in the box, seal and label it with the FedEx 2nd day label included, and call FedEx for drop off instructions.

You may purchase a two-year extension to the warranty while your 100LX or 200LX is under its original warranty. Purchase the HP Support Pack (H5465A, \$85) directly from your HP dealer within 30-days of purchasing your 100LX or 200LX. After that time, you can purchase the warranty extension from the HP

Corvallis Service Center; Phone: 503-715-2002.

Finding an HP Palmtop Dealer

HP's 24-hour automated dealer locator service (call 800-443-1254) should help you find an HP dealer in your area. If you're in a small town not close to a metropolitan area, the service may not be able to help you.

You can also find HP Palmtop Products at such retailers as: Office Depot, CompUSA, Computer City, Circuit City, Office Max, Service Merchandise; and mail order from such dealers as: **ACE Technologies** at 800-825-9977 or 408-428-9722; **Fax: 408-428-9721**. **EduCALC** at 800-677-7001; **Fax: 714-582-1445**. **ElecTec** at 800-395-1000; **Fax: 708-677-7168**. **Global Connections** at 608-752-1537; **Fax: 608-752-9548**.

Getting Technical Support

If you have a technical question about HP Palmtops, contact HP Mobile Computing Customer Support (MCCS) at the phone number below. You can also mail or fax your questions (responses returned by mail, phone, or fax within two weeks).

HP Mobile Computing Customer Support

1000 NE Circle Blvd.

Corvallis, OR 97330

Phone: 503-715-2004 (toll call)

Fax: 503-715-5488 (toll call)

5 a.m. to 5 p.m. Pacific time

Monday - Friday excluding holidays

MCCS is responsible for answering questions on the usage and operation of Hewlett-Packard mobile computing products and associated peripherals and application software. MCCS supports Hewlett-Packard calculators, Palmtops, and OmniBooks.

Customer Support is the main channel between end users and the factory for technical questions, suggestions, and complaints. The Customer Support group

What to do with your old HP Palmtop

If you purchase the new HP 200LX, what do you do with your 95/100LX? Here are some options:

Sell your HP Palmtop Locally

Put an ad in a paper or sell it to a friend. This solution may require the most time, but it will probably be your best financial option.

Put a "For Sale" notice on an electronic bulletin board

Most private and commercial electronic bulletin boards allow you to put up for sale notices.

Trade in your HP Palmtop to a Palmtop dealer who sells used equipment

This approach minimizes time and hassle. However, it also minimizes what you will receive for your HP Palmtop since the dealer must make the venture profitable for himself. Remember, the used equipment dealer must pay his marketing and operations expense so don't be shocked by what he offers you. Currently, we are aware of two such avenues.

- **EduCALC** - Phone: 800-677-7001 or 714-582-2637; Fax: 714-582-1445.
- **Global Connections** - Phone: 608-752-1537; Fax: 608-752-9548.

Thaddeus Computing (that's us) can always use extra palmtops for various projects. Please don't call. If you want to mail in your Palmtop equipment and manuals to us, here is what we will pay for equipment in good working order and good shape: **512K 95LX** (with manuals) \$85; **1MB 95LX** (with manuals) \$100; **1MB HP 100LX** (with manuals) - \$135; **2MB HP 100LX** (with manuals - \$150); **95LX or 100LX HP Connectivity Pack** with cable and manual - \$15; **100LX Serial Cable** - \$10; **Misc** (RAM cards, software and other items), we'll look things over, but we won't be able to offer much, if anything.

Send equipment to: *HP Palmtop Used Equipment, Thaddeus Computing, 57 E. Broadway, Fairfield, IA 52556, USA.* Include a note mentioning this offer with your phone and fax number. You will receive reimbursement within three weeks after we receive the equipment.

Give your HP Palmtop to a friend, family member, or colleague

What a great present to pass along. (If you really want to give them a good start, order them a set of back issues to *The HP Palmtop Paper*.)

Donate your HP Palmtop to charity

Check with your accountant to see how much you can deduct as a charitable contribution. Universities make natural recipients. If you like the idea but don't want to spend the time finding a recipient, here are two suggestions:

- **Send it to the Cristina foundation** - The National Cristina Foundation is a not-for-profit organization that shares computer and high tech applications to help people in need lead productive lives. For more information contact: *NCF, 42 Hillcrest Drive, Pelham Manor, NY 10803, USA; Phone: 800-274-7846 or 914-738-7494.*
- **Send it to us marked "HP Palmtop Donation"** - we'll see that the equipment is donated to our local university, Maharishi International University. (MIU specializes in research in consciousness). We will make sure that MIU sends you a receipt which you can use for your taxes. Send equipment to: *HP Palmtop Donation, Thaddeus Computing, 57 E. Broadway, Fairfield, IA 52556, USA.*

also assists dealers, sales representatives, corporate accounts, and is the backup for other HP support providers worldwide. MCCS measures end-user satisfaction, makes recommendations for product improvements, and monitors performance of support programs.

By Hewlett-Packard Mobile
Computing Customer Support (MCCS)

Is your HP 100LX or 200LX warranty about to expire?

We have passed the 100LX's first birthday, and will soon pass the 200LX's!

You may want to call HP Corvallis at 503-715-2002 to purchase the two year extension of the warranty for \$85.

In addition, if you have been putting off a warranty repair, better get it taken care of soon under the one-year warranty.

Ronald Viecel

What HP Will Fix For Free (and what they won't)

If your 100LX or 200LX is under warranty Hewlett-Packard will fix your unit at no charge in the U.S. HP's Express Exchange for the HP 100LX, HP 200LX and HP OmniBook is a marvelous service. Call tech support, **503-715-2004**. Once they give the OK that something is wrong with your unit, they will mail you a replacement. After you receive it, then send your HP 100LX or HP 200LX in, and that's it.

Their address is: *Hewlett-Packard Corvallis Service Center, Bldg. 11, 1030 NE Circle Blvd. Corvallis, OR 97330.*

HP 95LX's are not covered under Express Exchange, and many HP 95LX's are no longer under warranty. Most repair bills are in the \$160 to \$200 range. HP Palmtop users should consider extended warranty contracts (see first tip this section). The standard out of warranty repair cost on the 100LX is \$150 for the 1MB unit and \$218 for the 2MB. Repair costs on the 200LX are \$251 and \$295 for the 1MB and 2MB units. Extended warranties for both the 100LX and 200LX are \$85.

Based on comments of other readers, Hewlett-Packard will fix HP 95LX's with loose hinges and those in which the "low battery warning" won't go away, without charge. (No guarantees on this one. You might call HP tech support [**503-715-2004**] in the U.S. first.)

Unfortunately, the other relatively common HP 95LX problem, the screen failure, costs about \$190 to repair. The symptoms begin with lines on the display and intermittent disappearance and fade out of the display contents. At first turn-

ing the On/Off button or pressing the screen solves the problem. But unfortunately, once the symptoms appear, the slow death of the display is inevitable. There is no way anyone has discovered to repair the screen without sending the unit into HP. I had one unit that was sent in twice, under warranty, with this problem.

Hal Goldstein
Publisher HP Palmtop Paper

Back issues of The HP Palmtop Paper

While supplies last, you may purchase sets of back issues of *The HP Palmtop Paper* or *The HP Palmtop Paper ON DISK*. Use the enclosed order card or contact us at 800-373-6114 or 515-472-6330; Fax: 515-472-1879.

HP Palmtop users groups

This tip lists the HP Palmtop users groups we know of in the U.S. and around the world. An updated list will be posted in the most recent addition of *The HP Palmtop Paper*. Write us if you wish to be added as a contact for a users group in your area.

Cleveland, OH (USA) – 95LX/100/200LX users in the Cleveland area should contact: *Craig de Fasselle, c/o MEM, Inc., 4702 East 355th St., Willoughby, OH 44094;*

Detroit, MI (USA) – 95LX/100/200LX users in the Detroit area should contact: *Jeff Zorn, 29311 Aranel, Farmington Hills, MI 48334-2815; Phone: 313-489-1855 (EST) or Louis Peeples, St. Clair Shores MI 48080; Phone: 313-777-9390.*

GERMANY – HP Palmtop/Omnibook users in Germany should contact: *Eckart Prinz, Obere Muhlstr. 56a, 64291 Darmstadt, GERMANY; Phone/Fax: +49 6151 376065.*

GERMANY / LUXEMBOURG – Not an official user group but this individual is willing to help HP Palmtop users with questions or technical problems; contact: *Gilles Kohl, Hagsfelder Allee 16, D-76131 Karlsruhe, GERMANY; CompuServe ID: [100114,3146]; Internet ID: gilles@spam.fido.de; Phone: +49-721-69-36-55 (after 6 p.m. Central European time).*

HOLLAND/BELGIUM – HP 95LX/100/200LX users in the low countries should contact: *T. Groeneveld, Paladijnenweg 104, 3813 KE Amersfoort, HOLLAND; Phone: +31 33755147.*

Illinois (USA) – 95LX/100/200LX users in the Chicago area should contact: *Gordon Campbell, 29W051 Barnes Ave, West Chicago IL 60185; Phone 708-231-6796.*

Kansas (USA) – Contact: *Marietha Wilson, P.O. Box 1151, Manhattan, KS 66502-0012, USA; Phone: 913-532-9775.*

Los Angeles, CA (USA) – 95LX/100/200LX users in the LA area should contact: *Dave Shier at 805-371-9391; Fax: 805-371-9391; CIS ID: [75030,3374] for more information.*

New Jersey/New York (USA) – 95LX/100/200LX users in the New Jersey/New York area. Contact: *Stanley Dobrowski, 113 Carlton Avenue, East Rutherford, NJ, 07073-1038; CIS ID: [71031,2162]; Phone: 201-807-5857 (work).*

Oklahoma City, OK (USA) – 95/100/200LX users in the Oklahoma City area. Contact: *Richard B. Meek, 1804 Huntington, Oklahoma City, OK 73116, USA; Residential Phone: 405-842-1267.*

Richmond, VA (USA) – For 95LX/100/200LX users in the Central Virginia area. Contact: *John Haskell, 7102 Three Chopt Road, Richmond, VA 23226-3615. CIS ID: [70750,1243] or Phone: 804-288-6073 (work).*

San Diego, CA (USA) – For 100/200LX users in the San Diego area. Contact: *Mark Gitlitz, Internet: gitlitz@hdssd.hitachi.com; Work phone: 619-537-3000; Fax: 619-695-9501.*

San Francisco, CA (USA) – S.P.A.M. (Society for Palmtop Advancement through Meetings). For HP Palmtop users in the Bay Area, Northern California. Contact: *Brian Hollick, CompuServe ID: [71023,464]; Phone: 510-210-0419 or Dennis Dodd, CompuServe ID: [73301,3214]; Phone: 415-592-3970.*

SCANDINAVIA – For HP Palmtop users in the Scandinavian countries. Contact: *Martin Hagvall, Vaermegatan 9, 41832 Goeteborg, SWEDEN; Phone: +46-31-533-300; Fax: +46-31-141410.*

SOUTH AFRICA – HP Palmtop/Omnibook users in South Africa should contact: *James Dean, CIS ID: [70714,613]; Internet address: james@charon.hipsys.co.za; Phone: (011) 806-1382 (O/H); Fax: (011) 806-1353.*

TURKEY – HP Palmtop users in Turkey should contact: *Ahmet G. Ozisik, Soyak Binasi, Buyukdere Cad. 38, Mecidiyekoy, Istanbul 80290, TURKEY; Phone: (212) 275 09 10 (ext. 309); Fax: (212) 211 57 61.*

UKRAINE – For HP Palmtop users in the Ukraine, Odessa, Kiev, Crimea regions. Contact: *Linetsky V. Oleg, ПРЕДПРИЯТИЕ "ПРОГРЕСС", 1, Varvarovsky Spusk, Nikolaev, 327015, UKRAINE; Phone: (051) 36-73-51 36-73-13; Fax: (051) 24-41-25.*

Best Products

By Hal Goldstein

The following is an unscientific and somewhat subjective selection of the most important products we've come across for the HP 100LX and 200LX. (HP 95LX users will find products here but should review last year's Best Palmtop Tips, Best Products column for HP 95LX selections.)

The products we've selected met most or all of the following criteria.

1. The product significantly enhanced the utility of the HP Palmtop.
2. The product is easy-to-learn and use.
3. The product is popular among CompuServe HP Handheld participants (a group of sophisticated, enthusiastic HP Palmtop users).
4. The product is unique and represents a technological advance.
5. I use it.

Commercial hardware and software make up a good part of the list. In addition, many of the most important products are free or shareware. All freeware and shareware mentioned here and throughout this issue will be included on the special **Best Palmtop Tips ON DISK** (two 1.44 megabyte disks - see page 48 for purchase information). HP 95LX users should order *Best Palmtop Paper ON DISK, 1994*. In most cases this freeware and shareware are also available on **CompuServe**, **America Online**, and in some cases at **Internet sites comp.sys.palmtops or eddie.mit.ed**. If you feel I left worthy products out of this discussion, please write. There were so many fine and innovative products and services and I most likely missed some that should have been mentioned.

Special credit and appreciation goes to those companies and shareware/freeware authors who developed products exclusively for the HP Palmtop. These individuals and companies such as ACE, Extended Systems, EXP, SMART Modular Technologies, Shier Systems and others created their products out of a sense of vision and appreciation for the platform the HP Palmtop provides.

The programs I use every day

Most of the programs that I use everyday run in the background. After I set them up, they become as if part of the machine,

adding some functionality to the Palmtop and making it easier to use. Many of these programs consume precious System Memory space, which means that I can open fewer built-in application files. However, I balance that loss with the benefits described below.

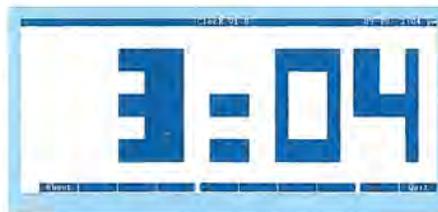
The nice thing about these programs is that once set up, I don't have to think about them. Fortunately, setting them up is easy, usually requiring no more than placing a line in the startup AUTOEXEC.BAT file.

For many of us as we grow older we become far-sighted. To increase the readability for the hard-of-seeing I recommend **HELV200** , a freeware program, and **Magnify!**, a commercial program from ACE technology. Gilles Kohl created **fcl** , a shareware "font compiler" which was used to make HELV200, a helvetica replacement font for the HP built-in fonts. **Magnify!** pops up a window that shows the underlying text 2, 3, or 4 times larger, a real boon to the be-spectacled or bifocaled Palmtop users.



Magnify! Display screen

For example, with a key press **Magnify!** lets you easily isolate and magnify a phone or fax number. Another program that is easy on your eyes is **CLOCK.EXM** . I simply press **ALT-APPT** and a large, easy-to-read digital clock pops up.



CLOCK digital clock display

Another group of utilities that I use enhances the every day functioning of the HP 100/200LX. One is **FASTDB** , a small program that speeds up **APPT**,

PHONE, and the other database applications. The user simply places the file **FASTDB.TSR** in the **C:_DAT** directory and **Fastdb** does the rest. (**Fastdb** changes the Palmtop's internal file housekeeping procedures, known in technical circles as "garbage collection." **FASTDB** was developed by Andy Gryc, the HP author of the 100/200LX applications based on the database engine.)

The other behind-the-scenes speed up product I use is a clock speed hardware upgrade with corresponding software driver. Unfortunately, as of this writing this product is still available only in Japan. The clock speed upgrade voids the HP warranty and diminishes battery life. Despite these objections, I am glad I have one of the few double-speed units in the West. We will announce general availability in *The HP Palmtop Paper* as soon as we hear something.

CLSFLR by Mark Scardina allows the user at his option to close **FILER** and free up 58K of System RAM. Once **CLSFLR** is run, whenever you quit **Filer** completely, **Filer** no longer occupies any System RAM. (**CLSFLR** itself does not occupy any system RAM.)

A product that I do not use, but worth mentioning, is **N2GDB.ZIP** . This program lets a user modify **Notetaker** format and read in any database file into **Notetaker**.

There is another program that is a "must-have," but hopefully you'll never have to use it. **GARLIC**  is a database reconstructor that can fix damaged 100/200LX data files for the **APPT**, **PHONE**, **NOTETAKER**, and **DATABASE** applications. Like **FASTDB** it was written by Andy Gryc, the developer of the HP 100/200LX database engine. My **Phone Book** started giving me "record not found" messages when I tried to look at some of my entries. I ran **GARLIC** with my **Phone Book**, and no more problems.

HPMENU 2.01 , by Harry Konstas, is a graphical DOS application launcher that runs in **System Manager** or **DOS** and will handle up to 128 applications.

Finally, and last is probably best, is **BUDDY 2.0** . **Buddy** is like 250 Palmtop utilities in one product. **Jeffrey Mattox** (a Macintosh user and an MS-DOS hater) originally created **95Buddy** thinking he could fix a few problems he read about in early issues of *The HP Palmtop Paper*. Based on his experience on the Mac, he felt HP Palmtop functions should be done in an easier, more intuitive and less keystroke-intensive way. Some of

95Buddy's ideas were in fact incorporated into the HP 100/200LX. My favorite 100/200 Buddy features include the following: you can launch a built-in application by pointing to a corresponding data file in FILER and pressing **ENTER**; press a key twice rapidly to obtain its shifted value; Buddy displays function key labels for user defined function keys (macros) and for opening files from the built-in applications.

For Buddy specifics refer to Vol.4, No.1, Pg.12. If you use the HP Palmtop daily, you'll wonder how you have lived without Buddy.

Connectivity

The usefulness of the HP Palmtop lies not only in what it can do in and of itself, but how you can use it to interact with the rest of the world.

File Transfer

Being able to carry around information from a desktop in the Palmtop and then transfer information back to the desktop is one of the great boons of the DOS based HP Palmtop. The **HP Connectivity Pack** makes it possible to run HP Palmtop software on a PC and to transfer files back and forth between the Palmtop and a desktop. **IntelliLink for Windows** file translation software lets you convert phone number and address files in PC Personal Information Management (PIM) software such as ECCO, Lotus Organizer and PackRat to and from the HP Palmtops. **MacLinkPlus/HP Palmtop** lets Apple Macintosh translate files and transfer them to and from the 95/100/200LX.

Many users (such as myself) depend on Eric Meyer's **ZIP**, a mean and lean file transfer utility that works on all three Palmtops. When I travel with my HP 200LX, I always bring ZIP, ZIPDUP (an associated ZIP file), and an **HP Connectivity Cable** (HP F1015A). I can use ZIPDUP to transfer ZIP.COM from my Palmtop to a PC, and then run ZIP on both systems to transfer files between my Palmtop and the PC. One could invoke a similar strategy using **ACELink**, designed for quick and portable PC-to-Palmtop file transfer, making using of the Palmtop's FILER. I like it because unlike the HP Connectivity Pack, it supports my COM3 serial port.

Many users need to transfer PHONE and DATABASE information to and from the Palmtop and other computers or organizers. They should consider getting the **HP 100/200LX Connectivity Pack** or the freeware programs **GDBIO.ZIP**

and **DBUTIL.ZIP**. These programs support database conversion between the HP proprietary format and the universal comma delimited format. Appointment Book data can be handled as ASCII or comma delimited files by a program called **ADBIO.ZIP**. There is now also **DBIO** a graphical user interface for DBUTIL and ADBIO. CAUTION: a small error can cause large problems. A misplaced comma, quote, or single quote are hard to see and can cause problems with the translation process.

Craig Payne, who also authored ACE-Link and GDBIO, contributed **REMKEY** to the public domain. Connect the Palmtop to a desktop PC using the HP serial cable. Run REMKEY and you can access or enter data in either your PC or Palmtop from your desktop PC's keyboard.

Finally, for those who want to directly read 3 1/2" floppy disks there are two alternatives, **Drive100** from Sparcom and **Travel Floppy** from Accurite. Travel Floppy uses the PCMCIA slot to connect to an external floppy. Drive100 connects to the Palmtop's serial port. Travel Floppy is faster and more reliable than Drive100. However, because Travel Floppy uses the card slot to connect to the Palmtop, you cannot transfer files between it and a memory card. Drive100 can access both the C drive and the A drive.

The Palmtop Communicator: Faxing and phone messaging

SMART Modular Technologies and **EXP** must be commended for their efforts producing fax/modem/ & flash memory PCMCIA combo cards specifically for the HP Palmtop. These cards make E-Mail, faxing, and modem access practical in a single self-contained unit. Both products include fax software designed for the HP Palmtop.

HP Palmtop CompuServe users continue to sing the praises of **acCIS 3.0**, a CompuServe access program from Shier Systems. acCIS was designed for the HP Palmtop and is a natural for the EXP or SMART card. This popular CompuServe access program supports the 40/80 column zoom on the 100/200LX, simplifies CompuServe access, reduces on-line expenditures, and provides a powerful "scripting" language for automating special areas such as downloading news, stock quotes etc.

Users who purchase other PCMCIA fax/modem cards or external fax/modem units may not be able to use the fax software that comes with the unit since most

SSFAXER[®]

By Simple Simon Software

The quickest and easiest way to send, receive, view and even print faxes with any HP Palmtop.

- Complete package is only \$19.95
- Faxing on the HP 100LX and 200LX
- Menu version runs under System Administrator
- Command line version runs under DOS
- Use External or PCMCIA modem cards
- Print to dot matrix or laser printer
- Under 100K space or less depending on installation
- Compatible with Class 1 and Class 2 fax/modems
- Recommended by Megahertz and HP

Simple Simon Software
P.O. Box 926, Bedford, TX 76095
Tel: 817-283-6691 • Fax: 817-283-5871

fax software assumes a Windows environment with lots of disk space. **ACEFax** was written specifically for a small DOS HP Palmtop environment and works with most PCMCIA and external hardware. Alternatively, shareware **SSFAXER** is a DOS Command line fax program that works well in most cases on the HP Palmtops.

HP Palmtop users who find HP's built-in DataComm communications program sparse will want to look into Fred Brucker's shareware, **COMMO**. It is a compact, yet powerful data communications program for the HP 100/200LX. A commercial version called **fast-COMM** is available from ACE.

Wireless: Look Mom, no cables

The ability to send and receive messages anywhere through the airwaves will certainly become more popular as the technology advances. HP Palmtop users really like **RadioMail's** ability to send and receive E-mail most anywhere. For those in the U.S. who need to be able to receive messages anywhere consider **HP Starlink** or **MobileMedia**. The nice thing about these receivers for these services is that they come in the form of a PCMCIA card for your Palmtop with software. That means your Palmtop can become your alphanumeric pager and you can also receive the latest stock, sports, entertainment and world news reports. (See page 28 for more information on wireless services.)

There are products that take advantage of the Infrared port. Two versions of **JetEye** from Extended Systems let you

use your HP Palmtop's infrared port for printing and for file transfer. No HP Palmtop cable required. **REMCOM** allows your HP Palmtop to control your TV, VCR, and Stereo system. The program is great for going into airport bars and changing channels much to everyone's bewilderment and amazement. Finally, **IRPRINT.EXM** is a system manager compliant utility that prints to older HP infrared printers.

Printing from the Palmtop

Two new lightweight serial printers make palmtop printing on the road feasible. The smallest is the **Pentax PocketJet** which uses high quality thermal paper. The **Citizen PN60** is also small and can take normal paper. Shier Systems sells custom cables that connect directly from the HP Palmtop to either printer.

PCMCIA Storage

HP Palmtop Paper readers should look through the bonus PCMCIA issue for information on PCMCIA storage options and PCMCIA card drives for a PC. A couple of quick recommendations:

1. If you have a PCMCIA card, buy a PCMCIA card drive. It makes file transfer a breeze between your PC and Palmtop. A number of companies advertise PC card drives in *The HP Palmtop Paper*.
2. By as large a PCMCIA card that you can comfortably afford. Know however, the prices will roughly halve each year.

More Top Software for Both Palmtops

Many mobile professionals find Symantec's **ACT! for the HP Palmtops** extremely useful for maintaining contact information. Our advertising sales people use desktop ACT! to track contacts and put contact histories on the HP Palmtop for when they go to trade shows.

For those who need more word processing power, consider Eric Meyer's **VDE** (fastWRITE is a commercial version customized for the HP Palmtops) or **QEDIT**. For spell checking MEMO users have been happy with **Websters Spell Checker** with its 100,000 word dictionary and 200K disk size. If you're looking for a feature-packed utility for viewing small or very large text files, try **LIST.ZIP**.

Some users prefer **InfoSelect** over **NoteTaker**, **DataBase** and even **PHONE**. **InfoSelect** is a freeform data base and is

faster, better at "fuzzy" searches (a search for similar words and phrases instead of an exact match), more versatile, and very readable.

I like to outline article ideas and projects. Although **MEMO** gives some outline capability, I have been spoiled by Symantec's **Grandview**. A shareware outliner by the same author, **PCOUTLINE** is also popular among HP Palmtop outliners.

Many PCMCIA flash card users double their storage capacity by using **Stacker**. The tradeoffs and directions for installing Stacker were discussed on page 44 of Vol.3, No.4. **PKZIP** is the most popular archiving/compression utility.

Gilles Kohl, shareware, **Vertical Reader** (VR95, VR100) adds the ability to read short stories, documentation, and novels on the HP Palmtop. After a number of years, literature becomes copy-right free. That means that Edgar Allen Poe's poetry, the Bhagavad Gita, or Moby Dick can be stored on a Flash card and read in one of Gilles custom fonts on the HP 95LX or HP 100LX. Additional fonts for VR are available in **NORMURA.ZIP**.

Those 100LX users tired of waiting for Pocket Quicken for the HP 100LX, might consider Ace's **CheckView**, originally written for the HP 95LX. I have not used it, but users are quite satisfied with its functionality tracking dialing checks and credit card expenditures, and its ability to transfer data to desktop Quicken. **BATTman** also from ACE, was developed to monitor battery usage (NiMH, Lithiums, as well as HP supported alkalines and NiCds). This product is not as important as it was on the HP 95LX, since most data is automatically backed up on the HP 100/200LX and flash rather than battery backed RAM cards are now what is most commonly used. However, any product that safeguards your Palmtop data should be considered.

For those who desire an electronic reference library on the HP Palmtop, there are products available for those with enough flash storage capacity. **Spanish Assistant**, **German Assistant**, and **French Assistant** from Microtac Software works quite nicely on the HP Palmtop. Each product has a dictionary with grammar rules module that can be run independently from System Manager. Each program can be run from DOS and can translate words, sentences, or complete documents. Both the **American Heritage Dictionary** and **Webster's Random House Electronic Dictionary** and **TheSaurus** are dictionary/thesaurus combi-

nations that have been run successfully on the Palmtop and recommended by users. Finally, I like using **Banner Blue Movie Guide** when I go to the Video Store.

There have been many games written about in *The HP Palmtop Paper*. (For a thorough overview, check out Vol.4, No.1, Pg. 20. On page 22 of that issue you'll find a list of 27 games included on a special games disk as part of the Jan/Feb 95 Palmtop Paper ON DISK.) Some of my personal favorites include **GO** (commercial program), **Reversi**, **side-ways Tetris**, **Sokaban**, **Klondike**, and in **AG.ZIP**, Chess and Invaders. In addition, Sparcom's **Games95** collection includes Chess, Checkers, Backgammon, and Invaders.

For those who want to cut and paste between a DOS application and a built-in application, try **CLIPVUE**.

SHASS helps you save time by automating grocery shopping. For those who want to improve HP Palmtop typing skills and have fun at the same time, check out **TYPER**. For a programmer's reference utility check out Ed Keefe's **PROHLP.ZIP**.

Finally, a word on carrying cases. There are a lot of useful carrying cases available and your individual needs will determine what you should get. One case quite popular among CompuServe members is the **Ripoff** case from EduCalc. This case is all black with some padding all around. There is a large flap which closed the case with velcro. The metal belt clip, which does not require the belt be taken off, is very strong and has a mechanism to help prevent it from just sliding off the belt. If you want an under the arm holster like for a gun, then check out **Pocket Liberator Palmtop Holster** from Opus 63.

Kudos to HP

None of these products would have been possible without the creation of the HP 95LX, HP 100LX and now HP 200LX. I believe the innovation and usefulness of the HP Palmtop is what has inspired the forward-thinking and technically creative developers who created the products described here. Quality HP Palmtop products inspire quality HP Palmtop developers. HP and these third party developers owe each other a debt of gratitude.

We, the users, benefit and appreciate.

Product Index

Contact information for products mentioned in articles.
See Advertisers Index, next page, for additional product references.

HP PRODUCTS

Contact: Authorized HP computer dealers worldwide. To locate an authorized dealer in the USA, call 800-443-1254. You can also purchase the 95LX & 100/200LX and its accessories from ACE Technologies at 800-825-9977; Fax: 408-734-3344; EduCALC at 800-677-7001; Fax: 714-582-1445. Global Connections at 608-752-1537; Fax: 608-752-9548.

HP 200LX 2MB — \$699

(HP F1061A)

HP 200LX 1MB — \$549

(HP F1060A)

HP OmniBook 600C PC

486DX2/50 170MB HD - \$varies

486DX4/75 280MB HD - \$varies

HP OmniBook 4000 PC

486DX4/100 520MB HD - \$varies

486DX2/50 260MB HD - \$varies

HP StarLink Service - \$varies

One-stop wireless messaging service. Contact: 800-917-LINK.

5MB.12v Flash Card — \$499

(HP F1012A) with Stackler 3.0 data compression software (not for the 95LX).

10MB/12V Flash Card — \$879

(HP F1013A) with Stackler 3.0 data compression software (not for the 95LX).

Dictionary/Thesaurus Card — \$149.95

(HP F1005A)

AC/DC Adapter (HP F1011A) — \$39.95

USA/Canada (Opt. ABA)

Europe (Opt. AB9)

Australia (Opt. ABG)

United Kingdom (Opt. ABU)

South Africa (Opt. ABQ)

PC Connectivity Cable — \$24.95

(HP F1015A) Connect 95LX and 100/200LX to DOS compatible PC.

MAC Connectivity Cable — \$24.95

(HP F1016A) Connect 95/100/200LX to Apple PCs/Macs.

95LX Connectivity Pack — \$119.95

(HP F1001A)

100/200LX Connectivity Pack — \$119.95

(HP F1021B), (HP F1021C) International

100/200LX Connectivity Pack Software Only — \$70

(HP F1021-80002)

Connect/Adapter Kit — \$24.95

(HP F1023A) 4 adapters for connecting the 100/200LX to modems, printers, and PCs.

100/200LX Accessory Cradle — \$79

(HP F1027A) Connects the 100LX or 200LX to U.S. Robotics WorldPort V.42bis Modem, Skytel pager, and other products.

95LX Accessory Cradle — \$60

(HP F1006A)

Service Agreements

For U.S. HP Palmtop users. Units must be under warranty to extend.

95LX, 1-year extension — \$50

95LX, 3-year extension — \$135

100/200LX, 2-year extension — \$85

Contact: HP, Corvallis Service Center, USA; Phone: 503-757-2002.

NOTE: Suggested retail price listed.

OTHER PRODUCTS

acCIS 3.0 — \$69

on 2MB SRAM card — \$329

(See page 29.45) Contact: Shier Systems & Software; Phone: 805-371-9391; Fax: 805-371-9454; CompuServe ID: [75030,3374].

AceFax - \$29; AceLink - \$39

(See page 45) Contact: ACE Technologies, USA; Phone: 800-825-9977 or 408-734-0100; Fax: 408-734-3344.

ACT! for the HP Palmtop — \$ 129

(See page 46) Contact: Symantec, USA; Phone: 800-441-7234 or 408-253-9600; Fax: 408-255-3344.

AOL 1.6 - Free

America OnLine BBS - \$varies

(See pages 29,34,44) Contact: America Online, USA; Phone: 800-827-6364.

American Heritage Dictionary 3.0 — \$59.95

(See page 46) Contact: Softkey International; Phone: 800-227-5609; Fax: 404-427-1150.

An Easy Course in Using the HP 19BII — \$19.95

(See page 18) Contact: Grapevine Press, USA; Phone: 800-338-4331 or 503-754-0583.

AppMan — \$29

(See page 16) Contact: ACE Technologies, USA; Phone: 800-825-9977 or 408-734-0100; Fax: 408-734-3344.

AWK 2.03 - n/a

TAWK Compiler 4.1A - \$149

(See page 40) Contact: Thompson Automation, USA; Phone: 800-944-0139 or 503-224-1639; Fax: 503-224-3230.

Aztec C - \$299

(See page 40) Contact: Manx Software Systems, USA; Phone: 800-221-0440 or 908-308-3800.

Backup Battery CR-2032 — approx \$3

(See pages 10,13) Contact: Radio Shack, or any place that carries watch batteries.

Banner Blue Movie Guide - \$44.99

(See page 46) Contact: Banner Blue Software, USA; Phone: 510-794-6850; Fax: 510-794-9152.

Batteries, AA — varies

(See page 10) Contact: Discount stores, Radio Shack.

BATTman — \$39

(See pages 11,46) Contact: ACE Technologies, USA; Phone: 800-825-9977 or 408-734-0100; Fax: 408-734-3344.

Canon BubbleJet — \$499

(See page 36) Contact: Canon USA; Phone: 800-848-4123.

CheckView — \$39

(See page 46) Contact: ACE Technologies, USA; Phone: 800-825-9977 or 408-734-0100; Fax: 408-734-3344.

CompuServe — \$varies

(see pages 32,33,44) Contact: CompuServe Information Service; USA; Phone: 800-848-8199 ext 231 or 614-457-0802.

Custom printer cables

PN60-100/200LX cable — \$42

PocketJet-100/200LX — \$35

(See pages 28,46) Contact: Shier Systems & Software; Phone: 805-371-9391; Fax: 805-371-9454.

Custom cables - \$varies

(See pages 28) Contact: ACE Technologies, USA; Phone: 800-825-9977 or 408-734-0100; Fax: 408-734-3344.

Delphi - \$varies

(See pages 34,44) Contact: Delphi Internet, USA; Phone: 800-695-4005; Modem: 800-365-4636; Internet e-mail: INFO@delphi.com.

DoubleCard RAM cards — \$varies

DoubleFlash cards — \$varies

(See page 7) Contact: ACE Technologies, USA; Phone: 800-825-9977 or 408-734-0100; Fax: 408-734-3344.

Embarc — \$varies

(See page 28) Contact: EMBARC/Motorola, USA; Phone: 407-364-2000; Fax: 407-364-3683.

FastLynx — \$29.95

(See page 31) Contact: Rupp Technologies, USA; Phone: 800-644-7775 or 602-224-9922; Fax: 602-224-0896.

fastCOMM — \$59

fastLINE — \$49

fastNOTES — \$49

fastWRITE — \$59

(See pages 20,28,30,45,46) Contact: ACE Technologies, USA; Phone: 800-825-9977 or 408-734-0100; Fax: 408-734-3344.

Fax/Modems from WorldPort V.42bis Modem — \$249

Palmtop Fax/Data Modem — \$249

2400 — \$229

(See page 28) Contact: U.S. Robotics, USA; Phone: 800-342-5877 or 708-982-5010; Fax: 708-982-5235.

First Things First — \$23

(See page 23) Contact: Local book seller.

Flash RAM Cards — \$varies

(See page 7) Contact: Sundisk, USA; Phone: 408-562-0595; Fax: 408-562-3403.

French Assistant - \$79.95

German Assistant - \$79.95

Spanish Assistant - \$79.95

(See page 46) Contact: Globalink, USA; Phone: 800-255-5680 or 703-273-5600; Fax: 703-273-3886.

Games95 — \$49.95

(See page 46) Contact: Sparcom USA, USA; Phone: 800-827-8416 or 503-757-8416; Fax: 503-753-7821; CompuServe ID: [75320,2440].

GrandView - \$295

(See page 46) Contact: Symantec Corp., USA; Phone: 800-441-7234 or 408-253-9600; Fax: 408-255-3344.

GO, Many Faces of — \$39.95

(See page 46) Contact: Ishi Press International; Phone: 800-944-9900; Fax: 408-944-9110.

HP Palmtop Paper Back issues

(See page 43) Contact: Thaddeus Computing, USA; Phone: 800-373-6114; Fax: 515-472-1879.

InfoSelect — \$149

(See pages 22,46) Contact: Micro Logic, USA; Phone: 800-342-5930 or 201-342-6518; Fax: 201-342-0370.

IntelliLink for Windows — \$99.95

(See pages 31,45) Contact: IntelliLink, USA; Phone: 603-888-0666; Fax: 603-888-9817.

JetEye PC Interface — \$99

JetEye Printer Interface — \$117

(See page 45) Contact: Extended Systems; Phone: 800-235-7576 or 208-322-7575; Fax: 208-377-1906.

Kodak Diconix 180si — \$329

(See page 35) Contact: Kodak Company, USA; Phone: 800-235-6325 or 716-724-3592; Fax: 716-726-3106.

Konnex Koupler — \$149

(See page 28) Contact: Unlimited Systems Corp, USA; Phone: 800-275-6354 or 619-277-3300; Fax: 619-277-3305.

LapLink V — \$169.95

(See page 31) Contact: Traveling Software, USA; Phone: 800-343-8080 or 208-483-8088; Fax: 208-485-6786.

MacLinkPlus HP Palmtop 2.5 — \$129

(See pages 31,45) Contact: DataViz Inc., USA; Phone: 800-733-0030 or 203-268-0030; Fax: 203-268-4345.

Macronix MaxLite 96/PC — \$595

(See page 28) Contact: Macronix Inc., USA; Phone: 800-468-4629 or 408-453-8088; Fax: 408-453-8488.

Magnify! - \$19

(See page 44) Contact: ACE Technologies, USA; Phone: 800-825-9977 or 408-734-0100; Fax: 408-734-3344.

MS-DOS 6.0 — \$49

Microsoft Assembler (6.1) — \$199

GW-BASIC — with DOS 3.x

Quick Basic (4.5) — \$199

MS C (5.1) — discontinued

(See pages 23,37,40) Contact: Microsoft Corporation, USA; Phone: 800-426-9400; Fax: 206-635-6100; Canada: 800-563-9048; International: 206-836-8661.

My Remote - \$29

(See page 28) Contact: ACE Technologies, USA; Phone: 800-825-9977 or 408-734-0100; Fax: 408-734-3344.

Navigator - \$varies

(See page 33) Contact: CompuServe Information Service; USA; Phone: 800-848-8199 ext 231 or 614-457-0802.

Norton Commander 3.0 — \$99

(See page 31) Contact: Symantec Corp., USA; Phone: 800-441-7234 or 408-253-9600; Fax: 408-255-3344.

P* (Prodigy) — \$ varies

(See page 34) Contact: Prodigy Information Services, USA; Phone: 800-776-3449.

PCAnywhere 4.5 - \$179

(See page 29) Contact: Symantec Corp., USA; Phone: 800-441-7234 or 408-253-9600; Fax: 408-255-3344.

PN-48 Printer — \$259

(See page 36) Contact: Citizen America USA; Phone: 800-477-4683 or 310-453-0614; Fax: 310-453-0614.

PN-60 Printer — \$399

(See page 46) Contact: Citizen America Corporation; Phone: 310-453-0614; Fax: 310-453-2814.

PocketJet Printer — \$499

(See page 46) Contact: Pentax Technologies; Phone: 800-543-6144; Fax: 303-460-1628; BBS: 303-460-1637.

Pocket Liberator - \$95

(See page 46) Contact: Opus 63; USA; Phone: 800-588-6787 or 718-706-6787; Fax: 718-706-7034.

Programming Software

Sources for programming software include:

Programmer's Paradise, 1163 Shrewsbury Ave., Shrewsbury, NJ 07702, USA; Phone: 800-445-7899 or 908-389-9228; Fax: 908-389-9227 and

The Programmer's Shop, 90 Industrial Park Rd., Hingham, MA 02043, USA; Phone: 617-740-2017.

Ripoff Case - \$14.95

(See page 46) Contact: EduCALC, USA; Phone: 800-713-6522 or 714-582-2637; Fax: 714-582-1445.

Serial-To-Parallel Adapters

(See page 36)

■ BSE Parallel Port — \$79

Contact: ACE Technologies, USA; Phone: 800-825-9977 or 408-734-0100; Fax: 408-734-3344

■ Converter Cable for 95LX — \$39.95

While supplies last. (See page 36) Contact: Imaging Supplies, USA; Phone: 800-462-4309; Fax: 310-370-3265.

■ GA 935 — \$79.95

Contact: Greenwich Instruments, USA; Phone: 800-476-4070; Fax: 704-335-8707.

■ Paralink 3 — \$79.95

Contact: WIDGET Software, UK; Phone: 011-44-438-815444; Fax: 011-44-438-815222.

Skystream Receiver — \$350

While supplies last.

SkyTel Wireless Service — \$varies

(See page 28) Contact: SkyTel USA; Phone: Consumer 800-456-3333; Fax: 601-944-3900.

SmartModem Fax/Modem/Flash Memory card — \$varies

(See page 45) Contact: Smart Modular Technologies; Phone: 510-623-1231; Fax: 510-623-1434.

Solar battery charger — \$12

(See page 13) Contact: CampMor; Phone: 201-445-5000; Fax: 201-445-8619

Sparcom Products

(See pages 9,31,36,45)

PC Data Exchange — included in:

PC Station 95 — \$119.95

PC Station 100 — \$99.95

Drive95 — \$359.95

Drive100 — \$359.95

Sparcom Print Station comes with serial/parallel adapter. Contact: Sparcom Corporation, USA; Phone: 503-757-8416; Fax: 503-753-7821; CompuServe ID: [75320, 2440].

Stacker 4.0 — \$99.95

(See page 46) Contact: Stac Electronics, USA; Phone: 800-522-7822 or 619-431-7474; Fax: 619-431-0880.

SWITCH! — \$39

(See page 18) Contact: ACE Technologies, Inc., USA; Phone: 800-825-9977 or 408-734-0100; Fax: 408-734-3344.

TapCIS — \$79

(See page 29) Contact: Support Group Inc., USA; Phone: 800-872-4768 or 301-387-4500; Fax: 301-387-7322.

Tech Applications

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 mailing address and contact information is:

Thaddeus Computing, Inc.,
P.O. Box 869 or 57 E. Broadway,
Fairfield, IA 52556, U.S.A.
Phone: 515-472-6330 or 800-373-6114;
Fax #: 515-472-1879;
CIS ID: Hal Goldstein, [75300,2443]
Internet: 75300.2443@compuserve.com

To advertise in *The HP Palmtop Paper*, contact Brian Teitzman or Margaret Martin.

To subscribe, change address, or clear up any problem with your subscription, contact our subscription department (Director Sharon Dilmore, CompuServe ID: [76125,1773]).

Technical Support

HP Technical Support – HP offers these options:

- **FREE TECHNICAL SUPPORT**— is offered to all Palmtop users and is available by calling 503-757-2004.
- **FREE AUTOMATED SUPPORT**— is offered 24 hours a day by calling 800-443-1254.
- **REQUEST FAXED OR MAILED INFORMATION** – 800-752-0900.

On-Line Support – offered by these bulletin board services.

- **COMPUSERVE: GO HPHAND FORUM** - Call 800-848-8199 or 614-457-0802: For FREE membership state #231.

- **AMERICA ON LINE:** Keyword PALMTOP - Call 800-227-6364 or 703-893-6288 for membership information.

- **INTERNET:** comp.sys.palmtops; or eddie.mit.edu.

How to submit an article

The richness of *The HP Palmtop Paper* comes from the contributions of Palmtop PC 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 E-Mail [75300,2443], Internet: 75300.2443@compuserve.com, 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. Please understand that we cannot promise to run any particular article.

If you can, especially if you write a Palmtop Profile, send us a black and white photo of yourself.

Products advertised in this issue of *The HP Palmtop Paper*

Company	Product [Phone/Fax numbers]	Page number
*Accurite	(Floppy drives for 100/200LX)	[408-433-1980; Fax: 408-433-1716].24
*ACE	(DoubleFlashPlus Cards) [800-825-9977 or 408-734-0100; Fax: 408-734-3344].back cover	
*Aware Electronics	(Gieger Counter)	[800-729-5397; Phone/Fax: 302-655-3800].32
*CSS	(Barcode system/Environmental Case)	[800-733-5017; Fax: 503-752-7077].38
*DataViz	(MacLink Plus)	[800-733-0030 or 203-268-0030; Fax: 203-268-4345].11
*DesignSoft	(Palmtop circuit analysis software)	[617-923-4275 Fax: 800-536-7595].17
*E & B	(Leather Cases)	[800-896-2273; Int'l: 916-344-5047; Fax: 916-782-9306].1
*EduCALC	(Accessories Catalog)	[800-713-6522 or 714-582-2637; Fax: 714-582-1445].25
*El Dorado	(95/200LX and Accessories)	[800-227-8292 or 415-494-6600; Fax: 415-494-1995].29
*Envoy Data	(PCMCIA Products)	[602-892-0954; Fax: 602-892-0029].30
*EXP Computer	(ThinFax Modem) . [800-EXP-6922 x 641 or 714-453-1020; Fax: 714-453-1319].inside back	
*Experience in Software	(Project Kickstart)	[Phone: 800-687-7007 or 510-644-0694; Fax: 510-644-3823].19
*Extended Systems	(Desktop Infrared Interface)	[800-235-7576 or 208-322-7575; Fax: 406-587-9170].33
	(JetEye Infrared Printer Interface)	[800-235-7576 or 208-322-7575; Fax: 406-587-9170].33
*Global Connections	(HP Palmtop Products)	[Phone: 608-752-1537; Fax: 608-752-9548].35
*Greenwich	(Palm Link A Printer)	[Phone: 800-476-4070 or 704-376-1021; Fax: 704-335-8707].13
*Inmax	(CGA/VGA Graphics Pack 'Vision')	[604-980-9991; Fax: 604-985-5597].24
*IntelliLink	(Windows Connectivity Pack)	[603-888-0666; Fax: 603-888-9817].21
*Maxtor	(PC Flash Card)	[Phone: 408-432-1700; Fax: 408-432-4510].39
*MicroGram	(Card Software Development System)	[Phone/Fax: 415-747-0811].40
*Opus 63	(Liberator Shoulder Holster)	[800-588-OPUS or 718-706-6787; Fax: 718-706-6787].29
*Palmtop.Com	(E-Mail Subscriptions)	[408-450-3467; Fax: 408-321-3603].5
*Shier Systems	(acCIS - CompuServe access program)	[805-371-9391; Fax: 805-371-9454].9
*Simple Simon Software	(SS Faxer)	[817-283-6691; Fax: 817-283-5871].45
*Smart Modular	(Fax/Modem & Memory)	[800-536-1231; Fax: 510-623-1434].inside front
*Steele Creek Tech.	(Card-link Drives)	[Phone & Fax: 704-588-1780].6
*Thaddeus Computing	(HP Palmtop Paper)	[800-373-6114 or 515-472-6330; Fax: 515-472-1879].8
	(HP Palmtop Paper ON DISK)	41

Best Tips ON DISK Index Software on the Best HP Palmtop Paper Tips ON DISK

Product	Function	CompuServe forum/Library	Type	Page
CLOCK.EXM	Application: Full screen digital clock, system compliant	HPHAND/7	Free	44
COMM0.ZIP**	Application: Version 6.41 of communications program for 100/200LX	HPHAND/9	Share	28,30,45
ICON.ZIP	Application: Draw "icons" for use with 100/200LX AppManager	HPHAND/11	Free	16
KERMI.ZIP	Application: Ver.2.29 PC Comm program with VT102 emulation	HPHAND/5	Free	28,30
KERMIT.ZIP	Application: Macintosh Comm program with VT102 emulation	MACCOM/4	Free	31
LIST.ZIP**	Application: Ver. 90.h, a text viewer with many features	UKCOMP/3	Share	46
PCOUTL.ZIP**	Application: Ver. 3.37 PC Outline program, organizes work	IBMAPP/6	Share	46
QEDIT.ZIP	Application: Word Processor	ZENITH/6	Share	46
SHASS.ZIP	Application: Shass 1.0, automates shopping on 100/200LX	HPHAND/11	Share	46
SSFAX5.ZIP	Application: Ver. 5.0 faxer for 95/100/200LX	HPHAND/9	Share	29,45
VDE171.ZIP	Application: VDE 1.71, a compact powerful editor, MEMO alternative	HPHAND/7	Share	20,46
VR100.ZIP**	Application: Vertical text reader for the 100LX	HPHAND/11	Share	46
COVEY.ZIP	Database: 1STTHING.GDB goal tracking 100/200LX database	HPHAND/11	Free	23
TODD.ZIP	Database: A sample Todo list in a 100/200LX_GDB file	HPHAND/11	Free	23
AG.ZIP	Game(s): Chess and Space Invaders (good graphics)	HPHAND/11	Share	46
KLON.ZIP	Game: standard 7 pile game of Klondike solitaire	HPHAND/7	Share	46
REVER4.ZIP	Game: Reversi, outflanking game	ZENITH/7	Share	46
SOKOB-LX.ZIP	Game: Maze and logic game	HPHAND/7	Free	46
TETRIS.ZIP	Game: A Tetris game that runs sideways on the 100/200LX	HPHAND/11	Free	12,46
TYPER.ZIP	Game: A typing exerciser to improve typing on the 95/100/200LX	HPHAND/11	Free	46
HPWK1.ZIP	Lotus 1-2-3: Built-in worksheets from the 95LX for 100LX users	na	Free	20
AWK.ZIP	Programming: High level programming language	HPHAND/15	Share	40
PC.ZIP	Programming: C-compiler that works nicely on the 95LX	ZENITH/9	Share	40
PROHLP.ZIP	Programming: Tool to help programmers	HPHAND/15	Free	46
PYGM.ZIP	Programming: A small Forth programming language compiler	HPHAND/15	Share	40
BUDDY.ZIP**	Utility: Version 2.0 enhancement program for 100/200LX	HPHAND/11	Share	13,15,20,23,44
ADBIO.ZIP**	Utility: Ver. 1.2 converts APPT files to & from comma-delimited format	HPHAND/11	Free	45
ALARM.ZIP	Utility: Musical alarm sounds for 100/200LX	na	Free	17
APLOAD.ZIP**	Utility: Ver. 2.1 makes 100/200LX Application Manager more flexible	HPHAND/11	Free	16
ASERCL.ZIP**	Utility: Ver. 2.1 allows control of the serial port for the 100LX	HPHAND/11	Free	12,27
BAT100.ZIP	Utility: Ver. 1.1 reports status of all 100LX batteries	HPHAND/11	Free	11
BATSET.ZIP	Utility: Reset the charge time on the 100LX	HPHAND/10	Free	12,13
CLIPVU.ZIP**	Utility: Makes 100LX clipboard work with DOS programs	HPHAND/11	Free	38,46
CLSFIL.ZIP	Utility: CloseFilter 1.0 recovers memory on 100LX	HPHAND/11	Free	19
DBIO.ZIP**	Utility: Ver. 1.0 a graphic interface for DBUTIL and ADBIO	HPHAND/11	Free	45
DBUTIL.ZIP	Utility: GBDUMP & GBDLOAD for 100LX database import/export	HPHAND/11	Share	45
DIET12.ZIP	Utility: Version 1.20 file compression utility	na	Free	14
DIET145F.ZIP	Utility: New version 1.45F file compression utility	HPHAND/1	Free	14
FASTDB.ZIP**	Utility: TSR - Speeds 100/200LX Phone, Appt, Database	HPHAND/11	Free	44
FATR.EXE	Utility: Change the file attribute setting, replaces DOS ATRIB command	na	Free	14
FCL.ZIP**	Utility: Ver. 1.02 tool to modify 100/200LX fonts	HPHAND/11	Share	44
GARLIC.ZIP	Utility: Fixes corrupt Phone, Appt, Database files	HPHAND/11	Free	44
GDBIO.ZIP	Utility: Ver. 0.93, import/export 100/200LX Database or Phone files	HPHAND/11	Free	45
HELV.ZIP	Utility: Helv100, alternate 100/200LX screen fonts	HPHAND/11	Free	44
HLVSR.ZIP	Utility: Contains alternate 100/200LX font	HPHAND/11	Free	44
HPMENU.ZIP**	Utility: HPMENU 2.01, graphical DOS application launcher, 100/200LX	HPHAND/11	Free	44
IRPRINT.ZIP	Utility: 100/200LX users print text files and clipboard to HP IR printers	HPHAND/11	Share	36,46
N2GDB.ZIP**	Utility: Convert 100/200LX NoteTaker_NDB files to_GDB database files	HPHAND/11	Free	44
NOMURA.ZIP**	Utility: Five additional Vertical Reader fonts (bold, tiny & script)	HPHAND/11	Free	46
PK204G.EXE	Utility: PKZIP/PKUNZIP 2.04g, an archive utility	HPHAND/1	Share	46
REMCOM.ZIP**	Utility: Ver. 1.07 remote control for TV, VCR, etc. on 95/10/200LX	HPHAND/6	Share	28,46
REMKEY.ZIP	Utility: Ver. 1.0 use desktop keyboard to run 100LX	HPHAND/11	Free	45
SPEL95.ZIP	Utility: Spell checker	HPHAND/7	Free	20
STICK.COM	Utility: Makes ALT and CTRL keys "sticky" like SHIFT and CHAR keys	na	Free	40
TIMOUT.ZIP	Utility: Change auto shutoff time on 95LX and 100LX	HPHAND/6	Free	12,13,29
UNZIP.EXE	Utility: Decompresses ZIP files	HPHAND/1	Free	na
ZIP.ZIP**	Utility: ZIP.COM 2.0 file transfer program: works on 95LX and 100LX	HPHAND/5	Free	9,31,45
BESTTIPS.ZIP	Text: The HP Palmtop Paper, Best Palmtop Tips 1995	na	na	na
DIETONHP.ZIP	Text: How to set up DIET on the 95LX and the 100LX	na	na	14
README.ZIP	Text: Cover letter for the HP Palmtop Paper Best Tips 95 OnDisk	na	na	na

** Indicates a new version as of March 1995, or a program that has not previously been on the HP Palmtop Paper OnDisk.

The HP 95LX software mentioned in this issue was included on last year's HP Palmtop Paper Best Tips ON DISK.

■ On last years disk:

- 95BUDDY.ZIP (HPHAND/7, Share, p.12,13); ■ ARKTOOL.ZIP (HPHAND/7, Share, p.23); ■ BATT35.ZIP (HPHAND/7, Free, p.12); ■ HP95CT.ZIP (HPHAND/7, Free, p.12); ■ IRPRINT.COM (HPHAND/6, Free, p.36); ■ NOTEPAD.ZIP (HPHAND/7, Share, p.23); ■ STATUS.ZIP (HPHAND/7, Share, p.15); ■ VR95.ZIP (HPHAND/7, Share, p.46)

TO ORDER THE BEST TIPS OR HP PALMTOP PAPER ON DISK, USE THE ORDER CARD ON PAGE 41.



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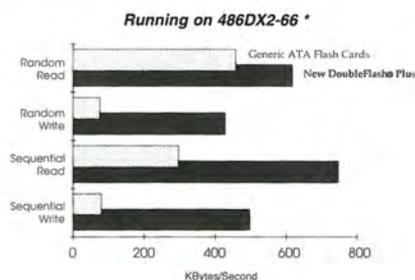
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