An Independent Publication for **Users of HP Palmtop Computers**

U.S. $7.95

Volume 5, Number 2, 1996

# THE HP Palmtop Paper

# PUMP UP YOUR PALMTOP!

## NEW 5MB 200LX PAGE 19

NEW DOS APPS THAT LOOK LIKE BUILT-INS PAGE 10

CD INFOBASE WITH 100'S OF PALMTOP GAMES AND UTILITIES PAGE 19

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## NEWS

Publisher's Message ..... 4
Letters to the Editor ..... 4
New Third Party Products and Services ..... 6
HP Palmtop Users Groups ..... 6
95/100LX Trade-In Announcement ..... 7
HP OmniGo 700LX Availability Update ..... 9

## REVIEWS

**They're Here! Powerful, New, Easy-To-Use Palmtop Programs** ..... 10
Fatten your Palmtop's potential with some of the new shareware, freeware and commercial programs developed for the HP Palmtop using the Palmtop Application Library (PAL).

**Palmtop Application Library Update** ..... 16
PAL lets programmers create DOS programs for the Palmtop with the look and feel of a built-in Palmtop application. The latest version of PAL provides better memory management, expanded memory support, AppManager support and much more.

**User to User: New 5MB HP 200LX and the *HP Palmtop Paper's* CD InfoBase** ..... 18

**Vendors Offer the Internal 5MB Memory Upgrade** ..... 22

## HOW TO USE

**Palmtop Wisdom** ..... 2-3
Put low priority requests in PhoneBook promises list; Use 1-2-3 to rotate foods in allergy treatment program

**User Profile: Keeping in Touch at Home and Abroad with the HP Palmtop** ..... 23
Follow this international banker on vacation as he uses his HP Palmtop to keep track of his finances, play a bond trading game, put together a business presentation, and stay in touch with friends and business associates around the world.

**Create a Relational Database Using Palmtop Built-in Applications** ..... 32
Ed Keefe shows how to link a PhoneBook containing Palmtop vendor contact information with a Database of Palmtop vendor products using System Macros and the built-in Subset Selection Language (SSL).

**Using 1-2-3, Lesson 5: Modifying a Spreadsheet is Easy, but Be Careful How a Change Effects Your Formulas** ..... 36
Fifth in our series on Lotus 1-2-3, this article shows how easy it is to copy, move, insert and delete rows and columns in your spreadsheet. But be careful! Changing a spreadsheet can effect formulas in unexpected ways.

**Basic Tips** ..... 46-47

**Quick Tips** ..... 48-50

**Product Index** ..... 51

**Advertiser's Index** ..... 52

**Files on Mar/Apr 96 ON DISK** ..... 52

**8 MB Version Now Available!**

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# Publisher's Message

Hal Goldstein

David Packard, age 83, co-founder of the Hewlett-Packard Company, passed away on March 25. Like Jimmy Stewart in "It's a Wonderful Life," a study of David Packard's life illustrates how one man can touch many people and make a real difference. Through his pioneering work as an engineer, business leader, and philanthropist, Mr. Packard did many good things that affected a great number of people.

Without David Packard you wouldn't be using an HP Palmtop, and I wouldn't be publishing this journal. Similarly, the lives of millions of HP customers using thousands of HP products over the past 57 years would be poorer without the company's innovative products. Without David Packard, hundreds upon hundreds of companies such as mine, staffed by former HP employees or based on HP products, wouldn't exist. There is not an orthodontist, architect, or sports car salesman in Silicon Valley today who has not been an indirect beneficiary of Packard.

But that is only the beginning of David Packard's influence. The management principles, "the HP Way," the way Bill Hewlett and Dave Packard chose to treat their employees, has served as a model for other companies, including ours. Hewlett and Packard created the concept of a modern benevolent corporation where the bottom line was to treat people right. They put trust and respect for individuals first; encouraged flexibility, teamwork, integrity and the creation of profitable, innovative products that met the needs of customers.

Among their management innovations were policies like sharing profits with employees, consensus management, growing conservatively from profits rather than risky debt, providing employees insurance for catastrophic medical care, developing alternatives to layoffs and giving back to the community. As the company grew, HP kept its small company feeling by decentralized decision-making, and by maintaining close communication with all levels of employees thanks to open-door policies and "management by wandering around." HP office buildings are still laid out in open desks with few doors or walls separating employees from even top level managers.

From the start HP hired the most talented individuals fresh out of the university and gave them as much responsibility as they could handle. When these talented engineers wanted to start out on their own, they did so with HP's blessing. And if they failed, they were welcomed back. This policy helped to spawn Silicon Valley, and it is not surprising that HP has an excellent relationship with many of its neighboring companies, even in these cutthroat times.

In the process David Packard and Bill Hewlett accumulated great wealth. They set up foundations, primarily to give electronic equipment to educational institutions. David Packard in his later years set up his own foundation funded by his personal fortune. All told David Packard gave billions of dollars away in ways that invested in the future.

Who says one man can't make a difference? David Packard's influence will continue well into the next century.

Hal Goldstein


**The HP Palmtop Paper**

INCREASING YOUR PERSONAL POWER BY EXPANDING YOUR PALMTOP'S POTENTIAL

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# Palmtop Wisdom

*Personal Effectiveness Using the HP Palmtop*

*The editors of* ***The HP Palmtop Paper*** *welcome you to* ***Palmtop Wisdom****. Palmtop Wisdom takes current thinking about* ***leadership, human relations, time management, finance, self-development, travel, entertainment, etc.,*** *and shows the concrete application of these concepts using HP's 100/200LX Palmtop PCs.*

*We welcome your feedback, ideas and contributions.*

## Human Relations

### *Put Low Priority Requests in Your PhoneBook "Promises" List*

*by Rich Hall*

"If you hear of anything, would you let me know?" It's a common experience to hear a request like this, then to have the very item the person was looking for show up on your desk a week or two later. The problem is that, by the time the item shows up, often you can't remember who asked you for it in the first place.

Examples of "Promises" might include:

1. One of your clients is looking for an inexpensive way to get to England. You say you will let him/her know if you hear of anything in the future.

2. A friend asks if you know of an art studio for rent in the area.

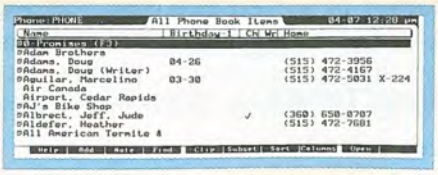
3. Someone asks you if you could volunteer time at the local high school. You will get back to them when you have the time.

For most of us, examples like these come up frequently. A "Promises" entry in your PhoneBook can keep these things on the back burner and still give you a chance to help others when the right time comes.

ON THE PALMTOP

You can enter low priority requests such as the one above, in a PhoneBook entry titled "Promises" that stays at the top of your PhoneBook items list. This way the information is not lost to a Database file that you never open, but is still out of the way until you need it.

To set up your Promises entry, in PhoneBook press F2 (Add). Type "0-Promises" in the Name field of the Phone Item screen, press F3 (Note), and enter any low priority requests you want to remember. Then press F10 (OK) F10 (Done). Putting the "0-" in front of the title sorts it to the top of your PhoneBook list. Every time you end up at the top of your Phone Items list, you will be non-intrusively reminded of your Promises list, and can check it if you feel so inclined.




PhoneBook Items screen showing "0-Promises" entry at top of list.

**Other uses of this technique**

Any non-pressing items you want kept in your awareness can go into this type of PhoneBook entry. Entries could include videos you want to see at some point in the future, or a list of your life goals. (See Vol.4, No.2, 1995, page 2, for more on this use of PhoneBook).

## Health

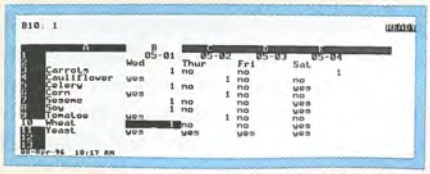
### *Use Lotus 1-2-3 to Rotate Foods in Your Allergy Treatment Program*

*by Tom Gibson and Paul Merrill*

Some people must "rotate" certain types of foods in their diet due to food allergies or other medical considerations. This means they can eat a particular food no more than every other day, every third day, once a week, etc. Because of this, they keep careful track of what foods they eat each day.

ON THE PALMTOP

You can set up a Lotus 1-2-3 template, ALLERGY.ZIP to automatically tell you which foods you can or can't eat on a given day, based on the period of the food's rotation (ie. every other day, every third day, once a week, etc.).




ALLERGY.WK1 Lotus template showing foods and current rotational status.

To do this, follow the steps below.

1. Create a Lotus 1-2-3 spreadsheet we will name ALLERGY.WK1.

❑ In the "A" column (starting with row 3) enter names of the foods you will need to rotate.

❑ Make row 1 the "date" row starting with today's date and running out at least one month in advance.

❑ Make row 2 the "day" row (Monday, Tuesday, Wednesday, etc.). For more information on setting up these columns and rows, see the Lotus 1-2-3 section of your *HP 100/200LX User's Guide.*

2. Next, enter the formula in the correct cells. For this example, we'll use a formula for rotating foods every third day — this means the formula will look back to see if there are any entries in the previous two cells (this is explained below). If you can eat a food every second day, you will want to change the formula to look back only one cell, or if you can eat a food once a week, you will have the formula look back six cells, etc.

To enter the formula, in cell C3 write:

**@if(a3=1#or#b3=1,"no","yes")**

Press [ENTER]. This formula means: if cells A3 or B3 has a "1" in it, write "no," otherwise write "yes."

Whenever you eat a food on your list, you will enter a "1" in the appropriate cell as explained later.

3. Copy this formula to all the cells for all the foods in the time frame you have set up (e.g. four weeks). To do this, at cell C3 press [MENU] Copy [ENTER]. Anchor the cursor by pressing [.], then [DownArrow] to the bottom of your food list, [RightArrow] to the end of your time frame, then press [ENTER]. Now copy the formula to column B. To do this, at cell C3 press [MENU] Copy [ENTER], move your cursor to cell B3, press [.] to anchor the cursor, [DownArrow] to the end of your food list, then press [ENTER].

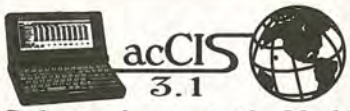
4. Lastly, we want to anchor the "list of foods" column and the "day" and "date" rows so that when we scroll down or scroll right, our guides will remain on the screen. To do this, at cell B3, press [MENU] Worksheet Titles Both.

Every time you eat one of the foods on your list, enter a "1" in the appropriate cell (at the junction of the correct food row and date column). If there is a "1" in either of the previous two cells in the row, 1-2-3 will enter a "no" (you should not eat that food today) and if there are not, it will enter a "yes" (you may eat the food today).

**Other uses for this technique**

This rotational template can be used whenever you need to take medicines, exercise or perform any action on a rotational basis.

**Share/Freeware Index: page 52**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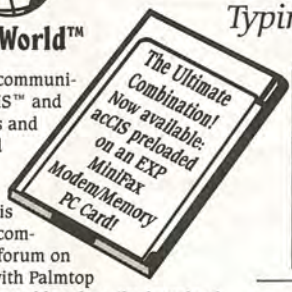


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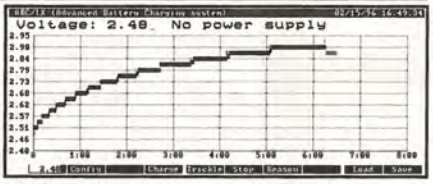
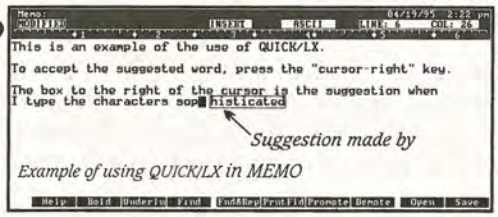



ABC/LX adds intelligence to battery charging in the HP Palmtop, plus it provides excellent information about battery conditions and charging. With ABC/LX you can simply forget about your batteries!

**QUICK/LX™**

*Typing aid for the HP Palmtop*

QUICK/LX learns the words you type most often, then suggests them after you type just a few characters. The suggestions are displayed in a box on the screen. You can ignore the suggestion and keep on typing, or accept it with the press of a single key, and QUICK/LX will finish the word. QUICK/LX can also be used to correct your most common typos! QUICK/LX works in programs under the System Manager and in text-mode DOS applications. QUICK/LX can even be used to enter Macros that work in both the System Manager and DOS (unlike the built-in System Macros.) QUICK/LX also comes with a DOS version for your desktop computer.




*Example of using QUICK/LX in MEMO*

QUICK/LX: $39

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# Letters

### HP's marketing strategy: Word-of-mouth?

HP's marketing strategy seems to be word-of-mouth for their 200LX Palmtops. Every time I take mine out to jot down a few notes, lookup a number, or check my appointments, people ask "What the heck is that?" I usually end up giving them a demonstration. No one seems to have heard of them.

One fellow saw me using mine at the library and mentioned he had an organizer collecting dust at home. I gave him a demonstration of the 200LX and watched him walk away mumbling "wow," and stumbling into furniture. Hopefully his mind cleared enough that he could drive home.

When people run into them at an office supply store they're usually looking for the cheapest electronic organizer they can find. When they see the price of the HP 200LX they quickly move on to the hundred dollar units and never discover what they missed.

The people at one office supply chain here are under the impression that the HP OmniGo 100 replaced the HP 200LX, and as far as they're concerned they're the same thing.

HP should advertise these things. Lawyers, doctors, engineers, accountants, designers, salespeople, programmers and anyone else with a mind and fingers should have one!

*Crosby*
*crosby@netzone.com*

### EMT helped by HP Palmtop

I am an emergency medical technician with the Bristol Life Saving Crew in Virginia, and the Johnson City Emergency and Rescue Squad in Tennessee. Over the past six years that I have served as a volunteer with both these agencies I have seen circumstances in which it would have been advantageous to have rapid, reliable access to data (drug identification, overdose information, etc.) on the scene of medical emergencies.

It was under these circumstances that the idea came to me for a portable computer small enough to fit in a pocket or belt pouch yet with enough memory to hold emergency medical reference information. A computer like this could be used by emergency medical technicians and paramedics alike. This was long before I had heard about the HP Palmtop.

Some months later I noticed that a pediatrics resident at James H. Quillen College of Medicine was using an HP Palmtop as a pediatric medicine reference. I asked if I might examine the machine. That was it! This PC had all the features for use in harsh field conditions.

I purchased one and have recently ordered a 10MB Flash memory card for it. I have begun loading information on drug identification, poisoning agents, hazardous materials codes, drug overdose information, emergency medical drug doses and other related data. I am able to carry the Palmtop in a side pouch on my belt and it has proven to be both reliable and durable.

Many emergency medical services professionals purchase $800 portable radios, but for the money I've discovered it's a better bet to have a computer by your side. Since I purchased my Palmtop I've seen Palmtops being used by emergency medicine physicians in the emergency department of local hospitals.

The Palmtop is making a difference in emergency medicine at the community level.

*Robert T. Turner, EMT-CT, EMT-IV*
*Johnson City, TN*

**HP200LX Memory Upgrades**

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**NOTE: Some older 1 MB versions of the HP200LX and HP1000CX may not be upgradeable. Those that are not may be eligible for a trade in discount towards a new system.

### Is HP 700LX compatible with other cell phones?

I read the article on HP's OmniGo 700LX by Rich Hall (Vol.4, No.6, 1995) which mentions that the 700LX is a docking station for a Nokia 2110. In Indonesia I can purchase a Nokia N-2110. If I purchase the Nokia N-2110 will it work with the upcoming HP OmniGo 700LX?

Also, many people say that the Ericsson GH-337 uses the most advanced technology (the phone is a little smaller than the Nokia N-2110). Could I use the Ericsson GH-337 with my existing HP 200LX?

I intend to purchase the OmniGo 700LX as soon as it is available here.

*Hans R. Jost*
*Jakarta, INDONESIA*

[*The HP OmniGo 700LX works with the GSM Nokia 2110, PCN Nokia 2140 and other Nokia-compatible cellular phones. This means that phones using GSM or PCN cellular protocols, that have compatible shapes/sizes and functionality will work. These may be sold by Nokia itself, or Nokia cellular phones sold under another brand name.*

*Nokia has different models of GSM and PCN phones and even the naming of these models varies from region to region worldwide. A Nokia reseller would have the most updated list of these — the 2110 and 2140 being the main models in these families. The lower-end models do not support some GSM/PCN services — for example, data communication and fax.*

*As for the Ericsson GH-337, it is smaller in size and Ericsson is shrinking it even more. The only catch with the GH-337 is that the customer has to come up with his/her own fax software, since Ericsson software will not work with the Palmtop. (Ericsson also makes a GSM datacard.)*

*Besides the cellular phone to be used with the OmniGo 700LX, the unit requires no software installations, no cables, no external cards, boxes, connectors or adapters (see 700LX update sidebar, page 9) — Hewlett-Packard.*]

### Non-slip strips for Palmtop

As soon as I pulled my HP 200LX from the box, I knew there was a problem. The 200LX was replacing my Casio Boss which has a rubberized case and grips securely, while the 200LX's case is hard plastic and slippery. The last thing I wanted to do was drop my new Palmtop, and I feared it would slip from my fingers every time I picked it up.

My solution was to apply Grip-it Strips (from Better Hold Products) to the top of the 200LX. The strips are adhesive plastic appliques with a rough surface, and have greatly improved my hold on the Palmtop. I applied two rows of a zig-zag design along the bottom edge of the 200LX's lid around the corner from the latch. You need at least two rows to create a good grip. I also applied strips along the 200LX's bottom but they interfered with the Palmtop's rubber feet so I removed them.

Now when I pull the Palmtop from my jacket pocket, it no longer feels as though it's about to slip from my fingers. I also get a lot of comments about the customized look of my computer.

Grip-it Strips are available in either zig-zag or wavy designs, in aqua, purple, gray or black. I used aqua to complement my 200LX's dark gray-green color. The strips cost about $9 per package and one package is enough for about four Palmtops. You can also use them for notebook computers, cellular phones, etc.

*Steven H. Leibson*
*Internet ID:*
*0002862060@mcimail.com*

*[Letters continued on page 44.]*

**Low Cost Flash Solution**
MagicRAM Solid State Flash Memory Cards are the ideal solution for storing data, backing up, running programs, and transferring files between your palmtop and PC. MagicRAM Flash Cards feature very low power usage for longer palmtop battery life and come with a lifetime warranty.

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# New Products!

*This section lists new products of interest to users of the HP Palmtop PCs. New Products includes descriptions of hardware, software, books, videos, training and service offerings. Prices listed in this section are suggested retail. You may be able to get the products for less if you shop around.*

*We invite vendors and subscribers to send us information about HP Palmtop-related hardware and software products and services they discover. We rely on information we receive from the manufacturer and cannot test every piece of hardware or software. We welcome any user feedback on product suitability*

*Paul Merrill*
*Associate Editor*

## Hardware

### Communication

#### International Telephone Adapter Plug Kits

Take one of these international telephone adapter plug kits on your next trip to convert foreign telephone jacks to use American plugs. Each kit has the appropriate plugs for its region, plus two modular inline couplers (one regular and one special), and a carrying case.

**Australia Kit:**
Australia (also works in many South Pacific islands).

**Far East Kit:**
UK, Japan, Australia, U.S. RJ-11 doubler, and U.S. old 4-pin.

**Euro Kit:**
UK, Belgium, Holland, Italy, France, two for Germany. (UK and French plugs also work in many colonies and ex-colonies.)

**Eastern Euro Kit:**
Hungary, Poland/Russia.

**Scandinavia Kit:**
Sweden, Finland/Norway and Denmark.

Availability .....Now
Pricing
Euro .....$69.95
Scandinavia .....$34.95
Eastern Euro .....$29.95
Australia .....$24.95
Far East .....$49.95
CONTACT: *EduCALC, 27953 Cabot Road, Laguna Niguel, CA 92677, USA; Phone: 800-677-7001 or 714-582-2637 Fax: 714-582-1445.*

### Connectivity

#### Serial Data Transfer Cable

Use this serial cable for data transfer between your HP Palmtop and a desktop PC, laptop or modem. The cable uses an ultra thin design for improved flexibility. Available in 4 and 10 foot lengths. Comes with free carrying bag and Kermit transfer software.

Availability .....Now
Pricing
HP 48 / 95LX .....$14.95
HP 100/200LX .....$16.95
Protective carrying case .... $14.95
CONTACT: *JG Electronics, P.O. Box 57, New Paltz, NY 12561, USA; Phone: None; Fax: 914-256-9254; E-mail: jgcables@tricreations.com; WWW: http://www.tricreations.com/jg-electronics*

#### Parallel Port PC Card from Quatech

Plug Quatech's SPP-100 Parallel Port PC Card into

## HP Palmtop User Groups

Those interested in participating in an HP Palmtop users group should contact the following individuals. Send us contact information formatted as below if you wish to be added as a contact for a users group in your area.

**HP Palmtop Worldwide User Group News** — send material about User Group activities to *Ahmet G. Ozisik at the Turkish User Group* (see contact information below).

**Arlington, VA / Washington, DC (USA)** — 95LX/100/200LX users in the Arlington, VA / Washington, DC area contact: *Rick Shaddock, c/o Computer Instructors Corporation, 2320 South Eads, Arlington, VA, 22202; Phone 703-486-2222.*

**AUSTRIA** — 95LX/100/200LX users in Austria, contact: *Ulli Hoesch, A-1111 Vienna, P.O. Box 50, HP-Club, AUSTRIA. Fax:+43/1/5443324.*

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

**Boston, MA (USA)** — 95LX/100/200LX users in the Boston area, contact: *Bryan Krauthamer; Phone: 617-374-9600 x 197 (work); Fax: 617-374-9620; CompuServe ID: [70444,41].*

**BRAZIL** — 95/100/200LX users in Brazil, contact: *Marcos L. Pedroza, Rua Trairi 647 Ap 104-B, 59020-150 Natal, RN-BRAZIL; Phone: 55 84 211-6162.*

**Charleston, South Carolina (USA)** — 95/100/200LX users in south Carolina, contact: *Ron Rivers, P.O. Box 31284, Charleston, SC 29417-1284; Phone: 800-864-8444; CompuServe ID: [75023,44].*

**Denver, CO (USA)** — 95LX/100/200LX users in the Denver area, contact: *Bill Hoeltgen, 5944 S. Kipling, Suite 300, Littleton, CO 80127 Phone: 303-933-0023; Fax: 303-971-0347.* Group meets quarterly.

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

**FRANCE** — HP Palmtop users in France, contact: *Olivier Della Valle, 178 rue du Marechal Leclerc, 94410 Saint-Maurice, France; Phone: (1) 43 53 95 67; CompuServe ID: [101533,160]*

**GERMANY** — HP Palmtop/Omnibook users in Germany, contact: *Eckart Prinz, Obere Mühlstr. 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 Koh; CompuServe ID: [100114,3146]; Phone: +49-721-69-36-55 (after 6 p.m. Central European time).*

**GREECE** — HP Palmtop users in Greece, contact: *Stavros D. Zacharakos, Sofocleous 33, Athens 151 26, GREECE; Phone: (+3-01) 8050041; Mobile Phone: (+3) 093-254-717 24hrs.; Fax: (+3-01) 8050041...* **OR...** *John Tatsiramos, c/o TAFARM, 70 Andritsenis Street 111 46 - Galatsi, Greece; Phone: (01) 29.17.401; Fax: (01) 29.28.174.*

**HOLLAND/BELGIUM** — HP 95LX/100/200LX users in the low countries, contact: *PROMPT HP-GC, Mister G. Dongs, Postbus 1081, 1500 AB Zaandam, HOLLAND; Phone: +31 75704205.*

**INDONESIA** — HP Handheld users (HP 75C, 110, 48, 12, 100/200LX) in Indonesia, contact *Dirk H. Eversbert, c/o P.T. Austindo Mitratama, Mr. Elman Sunarlio, Jl. Gunung Sahari 2/6E, Jakarta 10610, INDONESIA.*

**ITALY** — 95/100/200LX users in Italy, contact: *Stefano Gigli, Via E. Toti, 13-60123 Ancona, ITALY; Phone: 071-36845 or 071-200916; Fax: 071-200916; Internet ID: S.Gigli@agora.stm.it; Fido-Net ID: 2:332/316.4.*

**JAPAN** — HP Palmtop users in Japan, contact: *Georg O. P. Eschert, Ekimae 1-11-10, Koriyama City, Fukushima Pref., Japan 963; Phone: 040-12-06990; Fax: 0249-21-4050. (Languages: German, English and Japanese)*

**Kansas (USA)** — 95/100/200LX users in Kansas, 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, contact: *Dave Shier at 805-371-9391; Fax: 805-371-9391; CIS: [75030,3374] for more information.*

**MEXICO** — Palmtop users in Mexico, contact: *Jose Patino, Ave. Trasvina y Reles #2103, Chihuahua, Chih. CP. 31240, Mexico; Phone: (14) 26-50-43; Fax: (14) 81-01-75; Internet: jose_patino@dgc.ceo.dg.com OR... Francisco Briclo; Phone: (3) 684-1317; CompuServe ID: [74174,1442]*

**Minneapolis, MN (USA)** — HP Palmtop users in the Minneapolis/St. Paul area, contact: *Beth Silverwater, P.O. Box 27044, Minneapolis, MN 55427, USA; Phone: 612-541-5631; Fax: 612-541-5636; E-mail: 73502.3645@compuserve.com*

**New Jersey/New York (USA)** — 95LX/100/200LX users in the New Jersey/New York area, contact: *Stanley Dobrowski, 169 Springfield Avenue, Rutherford, NJ, 07070-1642; CIS ID: [76711,2302]; 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.*

**PANAMA / LATIN AMERICA** — HP Palmtop users in Panama or Latin America, contact: *Aviran Yanir, P.O. Box 31002 Colon Free Zone, REPUBLIC OF PANAMA; Phone: 507-4410442; Fax: 507-4410473.*

**PHILIPPINES** — HP Palmtop users in the Philippines, contact *Carlos: Caliwara, 2nd. floor, DHMC Bldg., 109 Neptune St., Bel-Air, Makati City, Philippines; Phone: (632) 8906229 to 36, extensions 120 & 121; Fax: (632) 9285635; Internet ID: law1@mail.ph.net*

**PORTUGAL** — 95LX/100/200LX users in Portugal, contact: *PPTUG, Rua da SFUAP, A-B, 2810 Laranjeiro, PORTUGAL; Phone/Fax: 351-1-2597216; Internet: suiplano@individual.puug.pt.*

**Richmond, VA (USA)** — 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).*

**TURKEY** — HP Palmtop users in Turkey, 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; E-mail: ozisika@doruk.com.tr*

**UKRAINE** — HP Palmtop users in the Ukraine, Odessa, Kiev, Crimea regions. contact: *Linetskvy V. Oleg, 1, Varvarovsky Spusk, Nikolaev, 327015, UKRAINE; Phone: (051) 36-73-51 36-73-13; Fax: (051) 24-41-25.*

**UNITED KINGDOM** — HP Palmtop users in the United Kingdom, contact: *Michael A. Brown, MBA Group, 33 Albury Avenue, Isleworth, Middlesex, TW7 5HY; Phone: 0181-847-3777; Fax: 0181-568-2402.*

the PC Card slot of your Palmtop to be able to print to a parallel port printer. Plugs into all Type II (5mm) PC Card slots and is PC Card Standard 2.1 compliant. Includes TSR drivers for the HP Palmtop to redirect your print jobs to the SPP-100. Also includes a 25 pin D-Shell interface cable to connect your Palmtop to your printer.

Availability .....Now
Pricing .....$195
CONTACT: *Quatech, 662 Wolf Ledges Pkwy., Akron, OH 4311, USA; Phone: 800-553-1170 or 330-434-3154; Fax: 330-434-1409.*

## PRINTING

### Portable printer for route accounting

Use these rugged, portable printers to print and track receipts out on the route.

The **MicroFlash** portable printer weighs 22.5 oz. and contains enough battery power to outlast an eight-hour shift on a single charge of its Ni-Cad battery pack. Recharges by either an AC adapter or cigarette lighter adapter in one hour.

Small enough to be worn on the belt of field workers without interfering in daily activities, the MicroFlash is built to withstand repeated drops of eight feet to concrete. Works with the 100/200LX and all other handhelds. Issues two-inch wide receipts and can be configured to utilize company logo, bar codes, and more. Prints up to one inch per second.

Aluminum body protects all components from crushing and weather. Includes battery, paper, and free software upgrades. Optionally available with infrared communications capabilities mentioned below.

**MicroFlash 3** offers the same features as the MicroFlash, but is faster and adds a wider receipt (three inches), and longer battery life. Utilizes an off-the-shelf Duracell NiMH battery (DR-30) which can be recharged by either an AC adapter or cigarette lighter adapter in three hours. Uses an IrDA-compliant infrared port to transfer data to a printer up to three feet away. Prints up to 1.7 inches per second and weighs 36 oz.

Availability .....Now
Pricing
MicroFlash — $995
with infrared capability — $1,295
MicroFlash 3 — $1,395
CONTACT: *O'Neil Product Development, Inc, 8 Mason, Irvine, CA 92718; Phone: 714-458-0500; Fax: 714-458-0708.*

## STORAGE

### 5MB Internal Memory Upgrade for HP 200LX

Upgrade your 1MB or 2MB HP 200LX to 5MB's of internal RAM. (For more information see vendor sidebar on page 22 of this issue.)

### Non-ATA Flash Memory Cards

Use these (non-ATA) Flash PC Cards from MagicRAM for your PC Card storage needs. According to MagicRAM the advantages of Non-ATA Flash cards are:

- ❑ Lower cost than comparable ATA PC Cards
- ❑ Faster read performance than ATA
- ❑ Lower power consumption extends your Palmtop's battery life

The card uses an included and pre-installed Flash File System which occupies about 25K of System RAM.

MagicRAM Flash Cards feature a write-protect switch which prevents the accidental overwriting of valuable data. They are available in compressed sizes from 4MB to 80MB (using built-in Stacker data compression).

Availability .....Now
Pricing
4MB (up to 4MB) — $129
8MB (up to 8MB) — $189
16MB (up to 16MB) — $329
20MB (up to 20MB) — $389
40MB (up to 40MB) — $639
80MB (up to 80MB) — $1249
CONTACT: *MagicRAM, Inc., 1850 Beverly Blvd., Los Angeles, CA 90057, USA; Phone: 800-272-6242 or 213-413-9999; Fax: 213-413-0828; E-mail: magicram@pacificnet.net; Internet: http://www.magicram.com*

### Adapter converts 5-volt PC Card slots to 3.3-volts

Use this power adapter from Greystone Peripherals to convert your Palmtop PC Card slot to accept the new 3.3-volt PC Cards. The Model PC-30 Power Adapter is a single-slot Type I PC Card that plugs into the 5-volt slot in a laptop, notebook, desktop or your HP Palmtop. PC-30 produces a voltage output of 400 mA at 3.3 volts, enabling your Palmtop to accept newer 3.3 volt PMCIA devices. Comes with 90 day warranty.

Availability .....Now
Pricing .....$79
CONTACT: *Greystone Peripherals, Inc., 130-A Knowles Drive, Los Gatos, CA 95030, USA; Phone: 408-866-4739; Fax: 408-866-8328.*

# Software

## SPORTS

### Tennis Analysis System

Use CATE.PRO (Computer Analysis for Tennis Experts) to analyze game data for the improvement of your tennis game — both technical ability and psychology. CATE .PRO consists of:

- ❑ Tennis software for the HP 95/100/200LX — responsible for match direction, logging game data and the creation of simplified game statistics on the Palmtop.
- ❑ Analysis software for MS-Windows 3.1 / Windows 95 — used for the graphic-oriented evaluation of your game data on a Windows-based PC. A file transfer system supporting data exchange between your PC and HP Palmtop is also included.

CATE.PRO was developed with input from professional tennis trainers and is appropriate for all tennis players and instructors. Game data is analyzed and presented in the form of histograms, diagrams and reports covering point difference, winner/error statistics, ball-into-net details, forehand error, trend analysis and more.

Since there is no fixed

### EduCALC offers Updated Palmtop Trade Up Program for 95LX and 100LX Users

EduCALC will take your HP 95LX or 100LX (with manuals) in trade on a new 1MB or 2MB 200LX. EduCalc's regular price for a 1MB 200LX is $499 and for a 2MB 200LX is $679. The trade in offer is as follows:

**HP 200LX (1MB) — $299**
(With trade in of 95LX or 100LX, $200 credit..)
**HP 200LX (2MB) — $499**
(With trade in of 95LX or 1MB100LX, $180 credit..)
**HP 200LX (2MB) — $399**
(With trade in of 2MB 100LX, $280 credit.)

**Contact:**:
EduCALC, Phone: **800-677-7001** or **714-582-2637; Fax: 714-582-1445.**

EduCALC must receive your order by June 30, 1996.

# Knowledge Products From Thaddeus

*The HP Palmtop Paper*

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- Bonus issue: *PC Card Review* (Each Fall)
- Subscriber PowerDisk (Each Fall)

***"The HP Palmtop Paper has saved me countless hours of frustration"***

Steve Mitchell
Middleburg, Indiana

### *Order back issues of The HP Palmtop Paper while they last*

Like the HP Palmtop? There's plenty of useful information already published. HP 95LX users will especially benefit from thirteen 1991-93 issues, and HP 100LX and HP 200LX users will appreciate the twelve 1994-95 issues. Included is a Subscriber PowerDisk for each year.

*"Best Tips On Disk" comes free with The HP Palmtop Paper On Disk subscription*

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Each year we compile the best palmtop tips and the best freeware and shareware and put it on two 1.44 Meg floppy disks. Included FREE only with your *The HP Palmtop Paper On Disk* subscription, or can be purchased separately.

*HP OmniGo World*

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- Graffiti™ stick'em guides to help you learn the handwriting recognition language fast

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continued on page 45

connection between the tennis software and the analysis software, in a tournament with several tennis computers, all data can be evaluated on a single PC.

Availability .....Now
Pricing:
CATE.PRO tennis software (memory card) .....$199
CATE.PRO analysis software (floppy disk) .....$99
CONTACT: *SetPoint Austria, Steinboeckengasse 7, A-1140, Vienna, Austria; Phone: +431/9141924; Fax: +431/9141924.*

# Freeware & Shareware

## PROGRAMMING

### 16-bit Prolog compiler and demo

PROLOG.ZIP from Logic Programming Associates (LPA), is a freeware demo version of their 16-bit Prolog DOS compiler. PROLOG-.ZIP runs standard Prolog programs "as is."

Additional modules (optimizing compiler, debugger, examples, etc.) can be obtained, together with a printed reference manual, from LPA at shareware prices. See the included file READ.DOC for more information.

Name: PROLOG.ZIP
Size: 170K
Location: HPHAND, Library 15
CONTACT: *LPA; CompuServe ID: [100012,3141]; Internet: brian@-cix.compulink.co.uk*

# Conferences:

### Handheld Computing in Healthcare Forum

The Forum for Handheld Computing in Healthcare will be held May 8-10, 1996 to bring companies in the handheld computing industry together with healthcare providers. The conference will examine the role of point-of-care mobile hardware and software in the healthcare industry. World Market Strategies and PDA, Inc. are presenting the conference. Co-sponsors include Hewlett-Packard, Healthcare Informatics Magazine, KPMG, Motorola, PDA, Inc., PDA Industry Association, Pen Computing Magazine, Proxim, Psion, Inc., RAM Mobile Data, Sales and Marketing Management Magazine, and Sony Electronics.

Topics will include:

- Creating a comprehensive strategy for PDA use within a healthcare business
- Cost justification of PDA implementation
- Connectivity of handheld systems to healthcare information systems
- Wireless communication in healthcare
- Acute and ambulatory care — PDA needs and solutions
- Home healthcare — PDA needs and solutions

The conference will include product demonstrations, customer/vendor question and answer panels, exhibits, as well as networking opportunities.

Date: May 8-10, 1996
Location: San Francisco, CA
Cost: $1,095
Group discounts available

Registration fee Includes admittance to all sessions and the exhibit area, two lunches and one dinner.

The Westin Hotel will hold rooms for forum participants at special rates. You must make reservations prior to April 23, 1996 to be eligible. Call 415-692-3500 (if after 5:00 P.S.T. call 800-228-3000).

CONTACT: *PDA, Inc., 4309 17th Street, San Francisco, CA 94114, USA. Phone: 415-252-8008; Fax: 415-252-8055; E-mail: newspda@aol.com*

## Update on the Availability of the HP OmniGo 700LX

***HP OmniGo 700LX Communicator Plus now available in Europe and selected countries in the the Asia/Pacific region. Availability in the U.S. depends on the introduction of GSM cellular networks.***

*By Rich Hall*

We first announced the HP OmniGo 700LX Communicator Plus in the November/December 1995 issue (see page 29). This unique product is essentially a 200LX with a built-in docking station that lets you connect it to a Nokia 2110 GSM cellular phone for mobile communications. Since the initial release, HP has added support for PCN networks via the Nokia 2140 and compatible cellular phones.The OmniGo 700LX with a docked cellular phone is slightly longer, wider, and thicker than an HP 200LX. The system provides an integrated communications solution that needs no additional cables or PC Cards.

You can leave the Nokia cellular phone docked to the Palmtop and use the built-in software to send and receive faxes and e-mail. When you need to talk on the phone, open the Palmtop, go to your PhoneBook, find the phone number of the person you want to call and press a button to automatically dial the number. When the call goes through, detach phone and talk. Leave the Palmtop open while you talk and make changes to your Appointment Book or PhoneBook as needed.

The OmniGo 700LX has all the built-in software of the 200LX, and additional communications software, including send and receive fax software and the Short Message Service (SMS) application. The Memo hotkey has been replaced by a key to access the Fax function.

The Nokia cellular phone has its own battery and AC adapter. When docked, the Nokia AC charger plugs into the OmniGo 700LX and charges both the phone and an OmniGo 700LX (with NiCds) simultaneously.

### HP OmniGo 700LX released first in Europe and the Asia/Pacific region

HP will start shipping the OmniGo 700LX on April 1, 1996. They will introduce the 700LX in the Europe and Asia/Pacific markets simultaneously as follows:

**April 1, 1996** — Europe: Germany, U.K., France, Norway, Sweden, Finland, Switzerland (products "localized" in the English, German, or French language). Asia/Pacific: Malaysia (Singapore in mid-96 when data services are available)..
**June, 1996** — Spain (Spanish language version).
**Late 1996** — United States.

The delay in the U.S. release has to do with the lack of GSM and DCS 1800 coverage in the U.S. There are different digital cellular standards in the U.S. The current network is a patchwork of TDMA (time division multiple access), CDMA (code division multiple access) and emerging pockets of GSM (global system for mobile communication, which is a subset of TDMA). The Nokia cellular phone used with the 700LX is GSM based.

Cellular service providers in the U.S. have plans for offering GSM services, but their schedules range from the middle to end 1996 for introduction. These include Pacific Telesis, BellSouth, American Personal Communications, Sprint International and several others. HP plans to sell the OmniGo 700LX in the U.S. after GSM networks become available.

# They're Here! Powerful, New, Easy-To-Use Palmtop Programs

*Fatten your Palmtop's potential with some of the new shareware, freeware and commercial programs developed for the HP Palmtop using the Palmtop Application Library (PAL).*

*By Gilles Kohl*

Programmers have been using the Palmtop Application Library (PAL) for over a year now to develop some very interesting applications for the HP Palmtop. PAL lets programmers give these new programs the look and feel of the built-in applications. The similar menuing system, cut and paste features, and the like makes it easy for those familiar with the HP Palmtop to learn and use Palmtop programs developed with PAL.

We've listed a few of these programs below. For more on PAL see page 16.

**ABC/LX** (Demo version ABCDEMO.ZIP) This utility automatically manages battery charging in your HP 100/200LX. Just connect the A/C adapter to the Palmtop and ABC/LX automatically selects the optimal charging parameters for a pair of rechargeable batteries in the Palmtop. There is a continuous visual display on the screen to monitor voltage and usage time. All the charging parameters are automatic, but can be configured by the user. A graphic display of the charging progress is also provided. *(Program author: Andreas Garzotto)*

Type: .....Commercial
Price:
Europe .....50.68 DM +vat
U.S. .....$34.95
Availability: Demo (ABCDEMO.ZIP) in vendor section in HPHAND forum on CompuServe and on *The HP Palmtop Paper ON DISK.*

Contact U.S.: *Shier Systems and Software, 920 Hampshire Road, Suite A, Westlake Village, CA 91361, USA; Phone: 805-371-9391; Fax: 805-371-9454; E-mail: 74777.2477@compuserve.com .*

Contact Asia and Europe: *Rundel Datentechnik, Rappenstr. 20, 73033 Goeppingen, GERMANY; Phone: +49-7161 14707; Fax: +49-7161 24473; E-mail: 100023.2477@compuserve.com.*

ABC/LX displays a graph showing the progress of the battery charging process.

**ADBMOON** (ADBMOON.ZIP) This utility creates moon phase data that can be imported into the built-in Appointment Book of the HP 200LX. *(Program author: Andreas Garzotto)*
Type: .....Freeware
Availability: Now (ADBMOON.ZIP) in library 11 of HPHAND on CompuServe; or ftp://ftp.ics.uci.edu/pub/garzotto/ palmtop/adbmoon.zip; or on *The HP Palmtop Paper's ON DISK or CD InfoBase.*
Contact: *73064.1657@compuserve.com*

Moon Phase setup screen lets you configure the utility to create an Appointment Book file with appointments for the moon phase information.

**DBC** (DBCALC.ZIP) A database calculator utility that can perform simple calculations directly on files created by the built-in database application. It can be used, for

**ABOUT THE AUTHOR**

Gilles Kohl is a native of Luxembourg living in Karlsruhe, Germany. He works as a software developer and project engineer for PROCAD GmbH & Co. KG, a German company specializing in CAD/CAM and electronic database management systems for technical applications. As a TeamHP member, Gilles enjoys helping other Palmtop owners in the German and French section of the HPHAND forum on CompuServe. Gilles can be reached under CIS: [100114,3146].

Database calculator can perform simple calculations on files created by the built-in database application.

example, to calculate the current balance of a transaction list database file. The current version performs four simple statistical calculations: SUM, AVG, MIN & MAX. *(Program author: Harry Konstas)*

Type: .....Freeware
Availability: Now (DBCALC.ZIP) in library 11 of HPHAND on CompuServe or on *The HP Palmtop Paper ON DISK.*
Contact: *72540.620@compuserve.com*

**DBIO** (DBIO.ZIP) A graphical user interface for the command line tools ADBIO and DBUTIL that convert database and appointment book files to comma delimited format and vice versa). *(Program author: Andreas Garzotto)*

Type: .....Freeware
Availability: Now (DBIO.ZIP) in library 11 of HPHAND on CompuServe; or ftp://ftp.ics.uci.edu/pub/garzotto/palmtop/dbio.zip; or on *The HP Palmtop Paper's ON DISK or CD InfoBase.*
Contact: *73064.1657@compuserve .com*

The DBIO setup screen lets you easily select ADBIO and DBUTIL options for the conversion of Database and Appointment Book files to comma delimited format, and vice versa.

**FixNote** (FIXNOTE.ZIP) FixNote can replace the built-in printer configuration dialog of the NoteTaker database application. The built-in dialog sometimes corrupts the NOTE.ENV configuration file,


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***If you have an HP 100LX Palmtop PC and you want to order Pocket Quicken, just call 1-800-243-4650. Pocket Quicken is $69.95, plus shipping and handling. Please call for details.***

System Requirements: IBM 386 33MHZ or higher or 100% IBM compatible computer with enough RAM to run Quicken or Expens*Able* for Windows. Windows 3.1 or higher, Quicken 3.0 or higher, 750K of hard disk space and one COM port on your computer.

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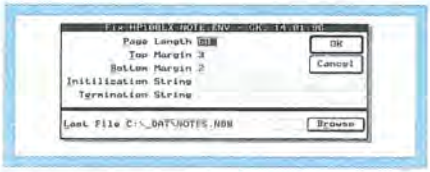
resulting in incorrect printer settings. *(Program author: Gilles Kohl)*




FIXNOTE provides an alternative printer configuration dialog box for the Notes application and helps to avoid corruption of the NOTE.ENV configuration file.

Type: .....Freeware
Availability: Now (FIXNOTE.ZIP) in library 11 of HPHAND on CompuServe and on *The HP Palmtop Paper ON DISK.*
Contact: *100114.3146@compuserve .com*

**HDM** (HDM.ZIP) A DOS application manager having the same graphical (windows) user interface as the built-in Application Manager of the HP 200LX. HDM can also run in DOS, and can handle up to 120 applications. You can specify the zoom mode, screen, serial port and power management state, command line arguments and icon for every application installed. It also has some built-in utilities, such as battery setup & status, volume control, & system information screen. HDM displays 24 icons on the screen at a time. *(Program author: Harry Konstas)*

HDM is a DOS application manager program with the same graphical user interface as the built-in AppManager.

Type: .....Freeware
Availability: Now (HDM.ZIP) in library 11 of HPHAND on CompuServe or on *The HP Palmtop Paper's ON DISK or CD InfoBase.*
Contact: 72540.620@compuserve.com

**HV** (HV.ZIP) An HTML viewer for the HP 100/200LX. HTML is the file format used to create Web pages. You can use HV to view pages that you downloaded from the web, or as a previewer when you create your homepage on your Palmtop. *(Program author: Andreas Garzotto)*

HV is an HTML viewer for the 100/200LX that lets you view Web pages you download to the HP Palmtop.

Type: .....Freeware
Availability: Now (HV.ZIP) in library 11 of HPHAND on CompuServe; or ftp://ftp.ics.uci.edu/pub/garzotto/palmtop/hv.zip; or on *The HP Palmtop Paper's ON DISK or CD InfoBase.*
Contact: *73064.1657@compuserve.com*

## HisWord Palmtop Bible

(HISWORD.ZIP)— A Bible study program featuring:

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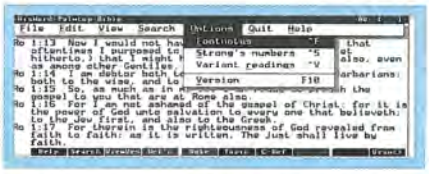
- ❑ Optionally view Strong's numbers, footnotes, etc.
- ❑ View a specific passage in context, or...
- ❑ Search for a passage by word(s)
- ❑ Copy verse text to the HP clipboard, for use with Memo, etc .
- ❑ Display cross-references for a particular verse
- ❑ Uses readily available 'Online Bible' datafiles (contact author for location of files)
- ❑ Supports 40/64/80 Zoom.

*(Program author: Tom Hoover)*




HisWord Palmtop Bible lets you view the Bible in up to three different versions, view specific passage in context, search for a passage by word(s), and more.

Type: ..... Freeware
Price: .....na
Availability: .....Now

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Contact: *tom-hoover@genie.com or Tom Hoover; 3014 Teakwood Drive; Garland, TX 75044, USA.*

**IconSaver** (ICNSAVER.ZIP 💾) This utility can retrieve an accidentally deleted .ICN file provided you can still see the icon in the Application Manager display. It can also create a file copy of any of the HP 200LX built-in icons. *(Program author: Gilles Kohl)*

The IconSaver main screen lets you select the application whose icon you want to save.

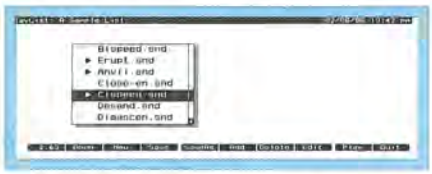
Type: .....Freeware
Availability: Now (ICNSAVER.ZIP ) in library 11 of HPHAND on CompuServe or on *The HP Palmtop Paper ON DISK.*
Contact: *100114.3146@compuserve.com*

**LXBatch** (LXB.ZIP 💾) A batch file enhancer with programming language functionality. LXBatch makes a lot of the power of PAL available to users familiar with the DOS batch files. Originally a batch file enhancer, the latest version has added programming language functionality, but it's still a lot easier to use than a C compiler. LXBatch has functions for screen, input, Palmtop functions, files, directories, time/date, keyboard, and a lot more. You can also compile your program to create your own *.EXE file. *(Program author: Rob Koenis)*

LXBatch is a utility that enhances the MS-DOS batch file language, giving it added programming language functionality.

Type: .....Freeware
Availability: Now (LXB.ZIP) in library 11 of HPHAND on CompuServe and on *The HP Palmtop Paper's ON DISK or CD InfoBase..*
Contact: *75450.1040@compuserve.com*

**Playlist** (PLAYLIST.ZIP 💾) Lets you organize musical .SND alarm files from the HP 100/200LX into lists and helps you manage these lists, and play the music in various ways. *(Program author: Bob Chernow)*



Playlist organizes .SND alarm files into lists and helps you manage these lists and play music in various ways.

Type: .....Freeware
Availability: Now (PLAYLIST.ZIP) in library 11 of HPHAND on CompuServe or on *The HP Palmtop Paper ON DISK.*
Contact: *76711.635@compuserve.com*

**PalDRAW** (PALDRAW.ZIP 💾) The first Draw/CAD application designed for the HP 100/200LX Palmtops. It can be used to draw sketches, schematics, and serious final designs. PalDRAW comes with a user friendly interface, powerful cursor movement capabilities, and only occupies 100K of disk space when loaded. It operates very fast and supports DXF file format import/export, Windows bitmap BMP and the ICN format native to 100/200LX icons. *(Program author: Ariel Rocholl)*

PalDRAW is a Draw/CAD application designed for the HP 100/200LX. It can be used for drawing sketches, schematics, and final designs.

Type: .....Shareware
Shareware fee: .....$35
Availability: Now (PALDRAW.ZIP) in library 11 of HPHAND on CompuServe or on *The HP Palmtop Paper ON DISK.*
Contact: *100657.1030@compuserve.com ; or http://ourworld.compuserve.com/homepages/ariel_rocholl/ .*

**PAL Font Editor** (PFE.ZIP 💾) PFE can be used to edit font files in the formats used by the PAL library, the Vertical Reader (VR.ZIP 💾) application for reading E-texts, and the FCL compiler (FCL.ZIP 💾). *(Program author: Harry Konstas)*

The PAL Font Editor lets you edit (modify) the look of the fonts used by the PAL library, the Vertical Reader application, and the FCL font compiler.

Type: .....Freeware
Availability: Now (PFE.ZIP) in library 11 of HPHAND on CompuServe and on *The HP Palmtop Paper's ON DISK or CD InfoBase.*
Contact: *72540.620@compuserve.com*

**Palmtop News Reader** (PNR .ZIP 💾) This application can be used to read Internet Newsgroups on the Palmtop. It requires a shell type account on a Unix host, and the UQWK utility. *(Program author: Michael J. Leaver)*

The Palmtop News Reader lets you read Internet Newsgroups on the Palmtop.

Type: .....Freeware
Availability: Now (PNR.ZIP) *ftp://eddie.mit.edu/pub/hp95lx/NEW/ pnrv10.zip* or on *The HP Palmtop Paper ON DISK.*
Contact: *mickyj@hk.net*

**Share/Freeware Index: page 52**

# In Development: a Personal Travel Guide

Personal Travel Guide (PTG) is being developed as part of the Atlanta Travelers Information Showcase for Battelle Inc. by a partnership of Hewlett Packard, Etak, Skytel, SanDisk, Marriott and Metro Networks. PTG is envisioned as a portable electronic street map, business guide and real-time traffic information system. The application programming is being done by Etak Inc., the worlds leading provider of digital street maps.

An initial screen shows an overview map of a particular area, in this example, Atlanta, GA. Map manipulation is available using the softkeys, F9 for zoom in, F10 for zoom out, and the arrow keys to scroll the view. There are three sets of softkey labels accessible in a ring using the More softkey. Only the first is shown here.

Personal Travel Guide opening screen shows an overview map of a particular area, in this example, Atlanta, Georgia, USA.

Press MENU Travel and select the Traffic option to provide real-time traffic incident and speed information which will be provided to the application via a Skytel 2-way pager link, with an Etak Traffic Workstation as the data source.

Another particularly useful item on the Traffic menu is the Address option, which helps you find a particular address on the map. Select Address, fill in a street address or intersection and press Find. It is often possible to have more than one match to a set of address inputs and a dialog box displays the resulting matches. Highlight the desired match and press (F10) to display a map of the city with the address location displayed as a black dot. The map is zoomed to the area of our match, which is displayed as a dot with a blinking selection box surrounding it. This point will continue to display as the map is zoomed and panned.

The Address option lets you display the location of a particular address on a map

The Places option, accessed from the main menu, lets you locate "Places of Interest," "Food," "Hotels," "Banks" and "Gas" (stations). Most selections from this menu show businesses or attractions as icons on the map. The tab key can be used to move the selection box from one icon to the next, and a description of that particular icon is displayed in the information line just above the softkeys.

The Places option also provides a "Guide and Yellow Pages" option, which lets you select categories of places and qualify them (i.e., select all attractions within three mile of your location). Category and qualifier items are set up as listboxes whose items are viewed and selected using the Arrow Keys. The Guide and Yellow Pages dialog box looks like this:

The Guide and Yellow Pages dialog box in the Places menu. lets you select Category, Qualifier, Name, and Distance from current location.

So if we selected "Attractions" from the Category field, "All" from the Qualifier field, and "3" from the Distance field, Personal Travel Guide would display a map similar to the one shown below.

Use the Guide and Yellow Pages option to select places of a particular type with in a specific radius of your location. You can then display the results of that selection on a map of the area.

The 17 matches are shown on the screen, with one initially selected, surrounded by the blinking selection box, with information shown on the information line.

The developers initially considered using the "Lotus Handheld Application Programming Interface (LHAPI) to write a straight System-Manager compliant application. But because the developers would be using a number of large model utility libraries for functions such as geocoding and map display, and because of the sheer amount of functionality involved, the developers opted to write a large model PAL application instead. Given the short development schedule (is there any other kind?), PAL has been a lifesaver. Just the right amount of functionality is supplied, valuable things such as menus and dialog boxes, without an overwhelming framework to get in the way. The source code distribution made it easy to compile, made it easy to correct problems as they were brought to light on CompuServe, and even made it easy to make our own minor modifications.

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-Sharp OZ organizers
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# Programming: Palmtop Application Library Update

*PAL lets programmers create DOS programs for the Palmtop with the look and feel of a built-in Palmtop application. The latest version of PAL provides better memory management, expanded memory support, AppManager support and much more.*

*By Gilles Kohl*

PAL is a collection of C language functions that provide programmers with the tools needed to give DOS programs the look and feel of the HP 100/200LX build-in applications. This includes pull-down menus, dialog boxes, hot-keys and cut-and-paste capabilities.

Over a year has passed since the first version of the **Palmtop Application Library** or PAL was uploaded to the libraries of the HPHAND forum on CompuServe.

The November 1994 upload was meant for contributors only - it could not yet be used for serious development. There were about 25 source files, and the entire compressed archive was less than 80K in size.

Half a year ago, I wrote about V1.1 of PAL in the July/August '95 issue of *The HP Palmtop Paper*. This version had an archive size of 350K, extensive documentation (the first release had close to none), and about 80 source files.

**PAL 1.6** just became available at the time of this writing — it comes in a small (480K) and a large (1.4 MB) version, and will be made available on *The HP Palmtop Paper's* CD InfoBase (see page 18 for announcement) It is also available in the HP Palmtop Developer's Guide and in Library 15 of CompuServe's HP Hand Forum. The number of source files has doubled to over 160.

Many new modules and a lot of new functionality has been added in this version — too much to list all the functions in detail. But I'll try to give you an overview of the improvements and additions.

## Memory management

Replacement routines are provided for the standard memory allocation functions. The new versions are compatible with the standard functions, but can detect an out-of-memory condition, and take appropriate action. This can be used to save important files before closing down the application in the case of a severe out-of-memory condition. But it can also be used to free resources (large fonts or pictures that are not absolutely necessary) and retry an allocation request.

## Expanded memory support

While the HP Palmtops do not have genuine EMS, an excellent emulator has been written that can convert C drive storage into expanded memory. This emulator is called EMM200 and was written by Hiroyuki Sekiya. It is included in the PAL distribution by kind permission of the author. The PAL EMS module provides an interface to the EMS 4.0 standard. PAL programs can use these calls to store and retrieve additional data in a much faster way than using files. (The PAL routines will also work on the desktop provided an EMS emulator like EMM386 is present.)

## Software Carousel API

**Software Carousel** by Sunshine Software has been acclaimed as The best task switcher for the HP Palmtops (see review, Vol.4, No.6, Pg. 35). It is the only one that is aware of HP Palmtop-specifics like the blue application keys or the need to switch to the System Manager work area when an alarm comes due. With the API, programmers can now control Software Carousel themselves, instruct it to switch to a given work area, launch or shut down programs, and even

send keystrokes to applications running in another area.

### Filer communication

PAL now includes routines that can talk to a remote Filer over the serial port. Programs running on the desktop can install themselves on the Palmtop this way, and programs running on the Palmtop can talk to the connectivity pack incarnation of FILER, for example, to actively backup their files or merge with files on the desktop. Currently, the routines work under DOS and Windows 3.x — their author Harry Konstas is working on making them Windows 95 and Windows NT compatible. Andreas Garzotto already did this for the free operating system 'Linux'.

### Applications Manager support

Another step towards easier installation is the Application Manager module. It provides functions to read, write and modify the APPMGR.DAT file — applications can install themselves into Application Manager automatically, without the user needing to type in a name and DOS Path. Even icon installation and retrieval is supported.

### Picklist support

While menus are great to select a single given option, what do you do when there is a need to select several options at once? The answer is picklists. The user can mark several entries in a menu, and all entries that have this 'checkmark' are returned to the program. There's even a FilePickList function that will let the user select among the files in a given directory matching a pattern provided by the programmer.

### Modifiable CFG configuration files

The INI-style configuration files that were read-only in earlier versions of PAL can now be modified in memory and written back to file - even respecting comments in the file. Applications can now offer customization dialogs to users, and save the data back to the .CFG file.

### Dialog improvements

Dialogs are now even closer to their System Manager counterparts. Edit items support copying and pasting to the System Manager clipboard, the buttons are more aesthetically pleasant (rounded and with a shadow), there is an overstrike and undo feature in edit items, radio button selection can now be moved with the mouse, and more. The long-awaited listbox control is now finally here as well. Programmers interested in the technical details of PAL dialogs should check out the March/April issue of "PDA Developers" where the PAL dialog topic is covered in depth in two articles.

### Miscellaneous

A number of additions and improvements don't fit easily into a predetermined category. Functions are now available to read and set the battery type, start and stop charging, read the battery voltage and even detect if the AC adapter is plugged in. An easy device for displaying progress meters is provided. The dreaded 'Abort / Retry / Ignore' error message from DOS can be intercepted by an errorhandler routine. The name and location of the last file edited in Memo can be retrieved, and the MsgBox function now supports sophisticated function key handling and label display.

### Future additions

Even as PAL 1.6 is being released, PAL development is continuing. Developing Database routines has a high priority, since they did not quite make it into version 1.6.

The next PAL version will have the long-awaited System Manager compatible file selection box — now possible with the addition of listboxes to the dialog toolbox. A circle and ellipse drawing function (that does not need floating point) will be added to the graphics routines, along with a flood-fill routine and a utility function that can retrieve user data from SETUP.ENV.

Share/Freeware Index: page 52


**TechRAM© 4MB Upgrade**

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Sorry 95LX users no memory upgrade options are available at this time. The use of the TechRAM will void your HP warranty.

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# User to User: New 5 Megabyte HP 200LX and *HP Palmtop Paper's* InfoBase CD

*By Hal Goldstein*

HP introduced its 95LX Palmtop PC in May, 1991. Today, five years later, the current HP 200LX model doesn't seem much different. Both machines contain an 80186 processor. They are both MS-DOS XT class machines. And they both run Lotus 123 and HP Calc along with other built-in applications that sit on top of a task switcher called "System Manager".

Despite these apparent similarities, the past five years have brought a number of software and hardware advances originating from within HP and from outside HP. Each major advance has remade the Palmtop into a whole new, more capable machine.

There are two obvious differences between the HP 200LX and the HP 95LX. First, the 100/200LX built-in applications are much more powerful than those found on the original Palmtop. Second, the 100/200LX's CGA-based 80-row by 25-column screen option gives it a display that's more like that of a traditional PC, making the Palmtop more truly a "PC in your pocket". However, what makes the HP 200LX a very different machine than the original 512K HP 95LX is increased internal memory, increased PC card storage capacity, and PC card communications.

## Upgrade 200LX with 4 extra megabytes of internal memory

The latest advance is a new 4MB internal memory upgrade (thus creating a 5MB HP 200LX). This procedure was pioneered in Japan and is now available in the U.S. from **Time2 Tech** (who also sells higher clock speed upgrades), **ACE Technologies**, and **Notebook Supply Warehouse**, and in Europe from **Rundel Datentechnik** (see sidebar, page 22 for more on these vendors).

First the bad news. The 4MB upgrade voids the HP warranty — it is not HP-approved. Those who take advantage of the upgrade will receive an independent warranty from the upgrade vendor. If repair is needed and you try to send an upgraded 200LX to HP, they may refuse to perform the work. If HP does fix the unit, the user will be charged even if the unit would otherwise be under warranty. Furthermore, in fixing the unit, HP might replace the extra memory with the standard 1MB or 2MB.

In addition, HP 100LX users will most likely not be able to take advantage of this upgrade. The internal BIOS is different, and no one thinks they will be able to solve incompatibility problems. The other down side is the price. Because of the price of both non-volatile RAM and of providing their own warranties, the price of the upgrade is relatively expensive (see sidebar page 22 for price and vendor contact information). Finally, in most cases both 1MB and 2MB 200LXs will upgrade to the 5MB unit. There is a report that recently manufactured 2MB 200LXs can be upgraded to 6MB, but 2MB users should not count on this.

## I love the memory upgrade

Having said all that, I love my 5MB 200LX. We received upgrades from both ACE and Time2 Tech to test. The extra internal memory it gives my Palmtop lets me use Sunshine Software's **Software Carousel** to switch between DOS applications almost as quickly and easily as I switch between built-in applications. I have set aside 2MB of my newly acquired internal memory for Software Carousel work space. I can have five sessions open at once. The normal System Manager applications with Buddy is session one. SHIFT-F2 takes me to my favorite DOS outline program, GrandView. SHIFT-F3 brings me to a menu of DOS programs created by a menu utility called HDM, and SHIFT-F4 brings

up my games menu. Pressing (123) opens a fifth session, Lotus 123 with a large 1-2-3 data file open.

There are, of course, many other uses for that 5MB of internal RAM. Users can now comfortably use a PC fax and modem card or a wireless PC Card and still have plenty of room for data and communications software. Those hungry for both storage space and fax/modem capability can store data on an 8MB Fax/Modem/Flash card from EXP and still have 4.4MB of internal C drive storage. Other users will like the speed of having data or DOS programs run off the C drive RAM Disk rather than a slower flash card.

Should you upgrade? If you are willing to accept the upgrade vendors' warranty, it is a question of finances. Flash (PC Card) storage is less expensive than C drive RAM disk storage. However, depending on your application, the overall usefulness of having more C drive internal memory may justify the extra expense.

## The HP Palmtop Paper's CD InfoBase

Many of you save past issues of *The HP Palmtop Paper* for reference. Even so, it is often difficult to track down a particular item you remember reading about. Through the years, we've had many requests for a comprehensive index, and have taken several unsuccessful attempts at it.

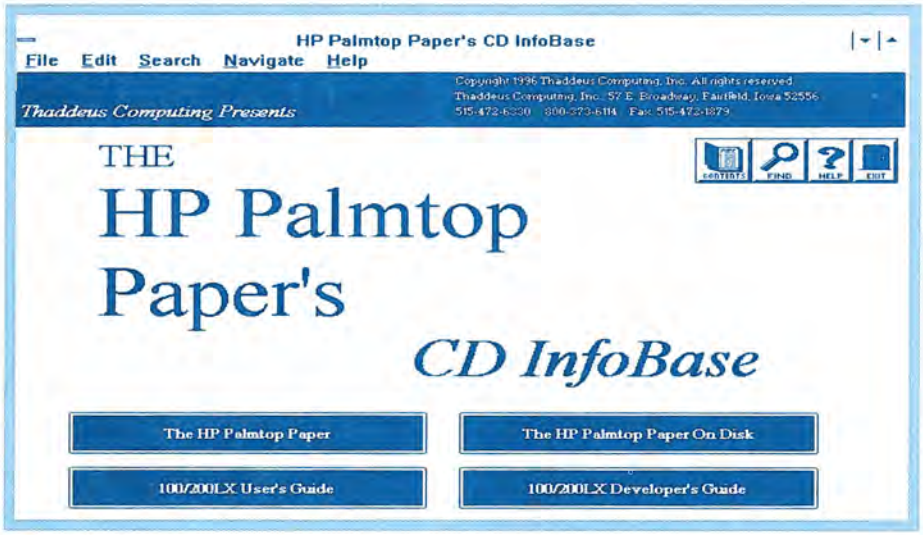
With the idea of an index in mind, about a year and a half ago I commissioned what I thought would be a three to four month project. My idea was to put all known HP Palmtop information in a searchable hypertext document and make it available on CD. After researching Hypertext engines, we settled on a product called HyperReader by Ntergaid. Our goal was to create an end product that allowed users to easily and quickly navigate the wealth of information available to answer their queries.

I contacted HP, and they gave us permission to include the *HP 200LX User's Guide* (good for both HP 100LX and 200LX users) and the *HP 100/200LX Technical Reference Guide*. We also included our first four years of *The HP Palmtop Paper* with detailed product information from our advertisers.

Finally, we included in uncompressed format all freeware and shareware software we have mentioned in 1991-95 issues of *The HP Palmtop Paper*. The descriptions and file listings of the software are indexed along with *The HP Palmtop Papers* and manuals mentioned above.

HyperReader comes on the CD and its installation onto a Windows PC takes only a few minutes. Users have the option to run the program from the CD (using about 1.5MB of hard disk space) or to install part or all of the CD hypertext onto the PC's hard disk (15MB for text with no graphics, 40MB text and graphics).

The opening screen (top of next page) lets you access most of the capabilities of ***The HP Palmtop Paper's* CD InfoBase.**




*The HP Palmtop Paper's* CD InfoBase opening screen in Windows on your desktop PC lets you access InfoBase's search capabilities. 100's of pieces of Palmtop freeware and shareware are also included on the CD.

The user can click on any of the four text boxes or any of the four icons in the top right of the screen. (These icons and others are available throughout the program). Clicking on The HP Palmtop Paper takes the user to several screens listing the contents of issues each year leading to an annotated listing of the articles of a particular issue. The user can then click on the desired article and read it, print it, or copy it to his or her PC or Palmtop.

Click on either 100/200LX User's Guide or 100/200LX Developer's Guide and you'll find yourself in the appropriate table of contents from which you can move to the text that interests you. Click on The HP Palmtop Paper on Disk to go to descriptions of the freeware and shareware mentioned in each issue. Any text on the CD can be copied and pasted into the Windows clipboard and then copied into Notepad or other applications supporting the Windows clipboard. A Windows Notepad file can be copied and saved and used in the Palmtop's Memo application.

The "Contents" icon in the upper right of the screen allows the user to go to a master table of contents, for all *Palmtop Papers* and manuals plus advertiser and other miscellaneous information. The "Help" icon gives information about using and navigating within HyperReader and serves as an electronic manual.

Perhaps, the most useful icon is the "Find" icon (a magnifying glass).

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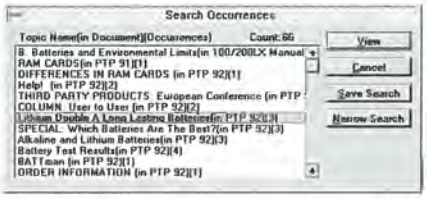
"Find" lets you search for occurrences of given words throughout all text. So, for example, you might want to search for information on lithium batteries. Type in **lithium battery** and in a few seconds all occurrences of that phrase from past *HP Palmtop Papers*, from the HP manuals, from the freeware and shareware index, and from the advertisers' descriptions will be listed.

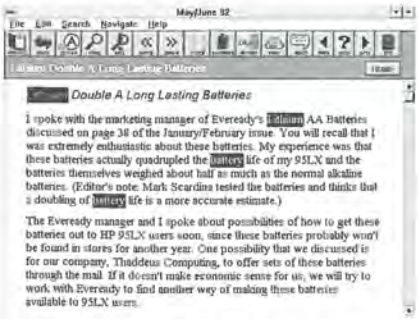
HyperReader also supports Boolean (logical "AND, OR") searches and limiting selection criteria to facilitate searching.

We tested the CD on a variety of configurations. Speed of search varied depending on the speed of the PC's processor, the speed of the CD, and the Windows' memory configuration. However, even on the slowest of configurations, users should find performance acceptable.

After clicking on the Find icon (magnifying glass icon), enter the word or phrase you are looking for (e.g., "lithium battery") and press ENTER.




The CD InfoBase Find feature gives you a detailed list of "hits," articles that have in them the word or phrase you are looking for.




Highlight the "hit" that most interests you and click on the View button to look at the article. The words you searched on are highlighted throughout the article.


# Introducing the Personal Dietician That Fits in the Palm of Your Hand

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- Works on all HP Palmtop LX's

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* *Includes full credit for upgrade to Professional Version*

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## Who can benefit from the CD InfoBase?

Anyone who uses a Palmtop regularly, and who is interested enough to subscribe to *The HP Palmtop Paper*, can probably make good use of the CD. The many hundreds of free and shareware games, utilities, and full-blown Palmtop applications alone, all easily accessible, should make the CD worthwhile to many.

Those who like "surfing the Net" or CD encyclopedias will enjoy moving from topic to topic, learning more about your Palmtop. Or from time to time you may have a problem or question related to the built-in applications. The CD lets you research a question or problem and find the solution fast. In addition, anyone who wants to know about the existence and availability of a Palmtop-related product, can search the CD for a quick answer.

Palmtop developers should find the CD invaluable. The CD contains all published Palmtop technical information plus megabytes of source code. Marketers of Palmtop products will find the CD useful for their market research.

Developer, marketer, and especially end users should find this CD loaded with information and software to make the Palmtop a more effective and enjoyable tool.

*(Last minute addition to CD InfoBase: In addition to these Palmtop games, utilities and applications, we have added 100s of Project Guttenberg E-texts (electronic books) created from 1990-1995. That means that you can use Gilles Kohl's Vertical Reader (VR100.ZIP ), also on the CD InfoBase, to turn your Palmtop into a book reader. You'll be able to carry with in your Palmtop the Bible, Tale of Two Cities, Lincoln's Gettysberg Address, the recent NAFTA Treaty, and more. For more on The HP Palmtop Paper's CD Infobase, see order card, pages 8 & 45.)*

# Vendors offering the internal memory upgrade

The vendors listed below are offering the internal memory upgrade for the HP 200LX. These upgrades are not official HP products and upgrading the internal memory of your 200LX will void your HP warrenty. You will have to rely on the warranty offered by the vendors.

## ACE Technologies offers 4MB RAM+Plus Upgrade or New HP 200LX with RAM+Plus Upgrade

ACE Technologies will upgrade your HP 200LX with 4 additional MB of internal memory (5MB total) or sell you a brand new 200LX with a total of 5MB of internal memory. With either option you'll have 640K of system memory to run programs and over 4.3MB of internal disk space/EMS Memory. The upgrade leaves the Palmtop's card slot free for flashcards, fax/modem cards, network or other PC Cards.

The RAM+Plus 4MB memory upgrade uses the same type of ultra low power, pseudo-static RAM chips that are used in the HP Palmtop. This allows you to continue getting excellent battery life. Both options include a expanded memory driver that lets you use the extra internal memory as simulated EMS memory. You can use the ACE DoubleRAM file compression utility to increase the internal file storage capacity to up to 8MB.(Upgrade not available for HP 95LX and 100LX.)

**HP 200LX 5MB**
**Palmtop with RAM+Plus — $995**
(plus shipping, includes pre-installed 4MB RAM+Plus and a 1 year ACE Palmtop Warranty)

**RAM+Plus 4MB Memory**
**Upgrade for your HP 200LX — $495**
(plus shipping, includes ACE installation and testing. 1 year warranty on RAM+Plus, 60-day ACE Palmtop Warranty, $25 credit option for 1MB Daughterboard

**Installation**: ACE Technologies only provides factory installation of the upgrade. Installations will be done on a scheduled basis to allow for a quick turn-around time. Palmtops received by their scheduled date will be shipped back within five business days. Before shipping, please backup all data because the upgrade process reinitializes your C drive. Palmtops will be fully tested before and after receipt at ACE.

**The ACE Palmtop Warranty:** ACE will repair or replace your Palmtop at no charge should it fail to function within normal operating specifications within the stated period. Failures due to physical damage of any kind are not covered under this warranty.

**Contact:** *ACE Technologies, Inc., 592 Weddell Dr. Suite 6, Sunnyvale, CA 94089; Phone: 800-825-9977 or 408-734-0100; Fax: 408-734-3344.*

## NSW offers internal RAM upgrades and new Palmtops with upgrade installed for the HP 200LX and 1000CX

Notebook Supply Warehouse (NSW) will upgrade your 200LX or 1000CX from either 1MB or 2MB to 5MB total internal memory (some 1MB units may not be upgradeable). NSW will honor your HP warranty for the full term as warranted by HP (proof of original purchase and valid warranty required). NSW also offers brand new 200LX and 1000CX units with 5MB internal memory. Prices (plus s/h):

**Upgrade of existing 200LX or 1000CX — $299**
**Brand new HP 200LX with 5MB internal memory — $849**
**Brand new HP 1000CX with 5MB internal memory — $650**
(New units backed with a one-year warranty through NSW. ** Note that some older 1MB versions of the 200LX and 1000CX may not be upgradeable, but may be eligible for a trade in discount towards a new system.)

**Contact:** *Notebook Supply Warehouse, 13700 Alton Pkwy., #154-281, Irvine, CA 92718, U.S.A.; Phone orders: 800-566-6832; Questions and international orders: 714-753-8810; Fax: 714-753-8812.*

## Times2 Tech offers TechRAM 4MB Internal RAM Upgrade and TechSpeed Upgrade

**TechRAM Upgrade**
The TechRAM 4MB Internal RAM Upgrade increases C drive to 4.3MBs of space, with DOS still having 640K of RAM available. TechRAM replaces the current 1MB memory modules in your 2MB 200LX, and can also be installed in your 1MB 200LX with or without the necessary connector. TechRAM uses the same type of 3.3v low power DRAM chips used in the 200LX currently, to continue giving you good battery life. The extra internal memory frees up your PC Card slot to be used with a modem or other PCMCIA devices, while leaving you plenty of room to store software, faxes, and data on your C: drive.

**TechRAM 4MB Upgrade Kit — $395.00**
**TechRAM 2MB Upgrade Kit — $225.00**
**Installation on 2MB 200LX — $25.00**
**Installation on 1MB 200LX — $50.00**
**Memory Connector (if necessary) — $10.00**
(Add s/h to prices. If your 1MB 200LX already has the connector for a memory upgrade, you will be credited the $25 extra charge for installation in a 1MB machine. 100LX and 95LX models are not supported.)

**TechSpeed Upgrades for 100/200LX Owners**

The TechSpeed upgrade doubles the processing speed of your 100/200LX by replacing the system crystal with one provided in the kit. The upgrade makes for faster screen updates, faster keyboard processing in databases, faster database scrolling and searching times, faster RAM/ROM access times, and faster Software Carousel(tm) session swapping. Components for a timing circuit change are also included, as well as the torx bit and instructions for opening the case. Times2 Tech offers both a kit and installation options. The kit provides all the instructions you need to open your palmtop as well as the torx bit. If you need installation, it should be scheduled with Times2 Tech ahead of time to allow us to return your Palmtop within 2 business days. Please backup your machine before sending it in as TechSpeed cannot guarantee the safe return of your data.

**TechSpeed Upgrade Kit — $50.00**
**TechSpeed Installation — $25.00**
(2MB 100LX, or 1MB/2MB 200LX only)
**TechSpeed & TechRAM Installation — $TechRAM install charges apply**
(Add s/h to all prices.)

**Warranty:** 30 day money back guarantee, 1 year parts guarantee. Your HP warranty will be void with the installation of these kits.

**Contact, U.S. & Non-European countries:** *Times2 Tech, 105 Maple Street, Maylene, AL 35114, U.S.A.; Phone: 205-620-1408; Fax: 205-620-1408; E-mail: mack@traveller.com or CompuServe ID: [103617,3560]; Web: http://www.bhm.tis.net/~mack.*

### European countries:

TechRAM and TechSpeed upgrades are available in Europe through Rundel Datentechnik. Pricing (Deutsche Marks):

**TeckRAM 4 MByte kit — 640,00**
**Connector for 200LX 1MB — 25,00**
**Installation — 90,00**
**TechSpeed speed upgrade kit — 89,00**
**Installation — 90,00**
**Installation of both kits together — 120,00**
(EEC residents please add 15% VAT to all prices. Shipping will be charged at actual cost. Due to customs restrictions, we can't offer installation for non-EEC residents.)

**Contact:** *Rundel Datentechnik, Rappenstr. 20, 73033 Goeppingen, GERMANY; Phone: +49-7161-14707; Fax: +49-172-7326211; E-mail: CompuServe ID: [100023,2477].*

# Keeping In Touch at Home and Abroad with the HP Palmtop

*Follow this international banker on vacation as he uses his HP Palmtop to keep track of his finances, play a bond trading game with friends, put together a business presentation, and stay in touch with friends and business associates around the world.*

*By Wayne E. Yang*

I am often huddled over my computer, sending and receiving electronic mail day and night. E-mail keeps me in touch with friends and business associates around the world. Without a keyboard and modem handy, I start to go through electronic withdrawal. The symptoms are restless fingers and visions of text scrolling through my head.

The problem is that my life style is quite mobile and I can't carry a desktop PC around with me. Laptop computers are a step in the right direction, but even my Apple Powerbook weighs a hefty seven pounds. Add to that the weight and bulk of other necessary peripherals and a portable computing set up is still uncomfortable to lug around. After trying to do so for too long, I recently vowed to travel lighter. During a vacation to the United States last year I left my trusty laptop at home, and took only my HP 100LX.

### Keep in touch with e-mail and fax

I live in Zurich, where I work for a Swiss bank. I use the CompuServe Information Service to touch base with friends and colleagues around the world. CompuServe is the only major American online service with its own nodes in Switzerland. America Online has just launched a European venture with the German publishing house Bertelsmann. (Unlike Internet, which is made up of a number of different networks, CompuServe and America Online are independent networks. CompuServe has central computers that store e-mail and other information. These are connected via secure communication lines to "nodes," physical locations around the world where CompuServe subscribers can call in and connect to the network.)

I use a Megahertz 14.4 PC Card modem to connect my Palmtop to the phone line and log into my CompuServe account. The Megahertz has a built-in pop out phone jack that makes connecting to the phone cord easier. Once my Palmtop is physically connected to the phone line, I am able to log into the service using the HP's DataCom software. I press [MENU] **C**onnect **S**ettings and set Baud to **9600**bps, Interface to **COM2**, Parity to **none**, Data Bits to **8**, and Stop Bits to **1**. I press [F5] to go to the Phone Settings screen and set the phone Type to **Pulse** dialing, which lets me access the local Swiss phone lines. This modem initialization string has worked for me in New York, London, Zurich and Columbia, SC. I purchased the Megahertz modem card from ACE Technologies, which comes with a modem card driver that seems to work better than the modem driver that comes resident on the Palmtop.

**ABOUT THE AUTHOR**

Wayne E. Yang lives in Zurich, where he works in the Multilateral Financial Institutions group at Union Bank of Switzerland. He was formerly with the Bank's Global Derivatives group. Wayne is a South Carolina native. He can be reached via internet at 101454.3400@compuserve.com.

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In New York I stayed at a friend's apartment. When I got there, I immediately sent a two-week activity report back to the home office through the CompuServe fax gateway. The fax gateway lets me send a message through CompuServe to someone's fax machine. Using the Palmtop's Memo function, I type up the message and save as a text file. Then I upload these text files to the CompuServe mail workspace. From there I address and send them. In the TO field, instead of typing an internet address I type "fax:" followed by the fax number that I want to reach. For example, if I was sending a fax to Rich Hall at Thaddeus Computing, the address would look like this:

```
to: fax:15154721879
```

You can also pre-address a document that you want to upload and send via CompuServe (using an Internet e-mail address). While you are in Memo creating the message, go to the very top of the document. On the first line of the document type **to:** followed by the internet address. On the second line type **from:** followed by your name. On the third type **subj:** followed by your topic. For example, if I was sending a message to Richard Hall, Managing Editor of *The HP Palmtop Paper*, it would look something like this:

to: internet: richard_hall@thaddeus.com
from: Wayne Yang
subj: Palmtop Paper article

Dear Rich, here's my last revision...

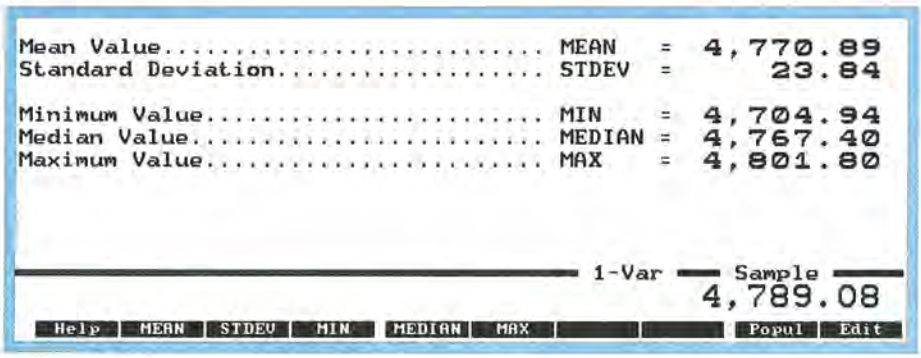
The "to:" has to be followed by an e-mail address in the internet format: **internet:name@domain.com.** After you upload the message to the CompuServe mail workspace, you can simply tell CompuServe to send it. The system will then prompt you to verify the information. Type **y** for yes, and the message is on its way.

### HP Calc and Internet helps with mock trading

My friend in New York and his brother both work for banks. To improve our financial skills, we play our own trading game in which we buy and sell different financial instruments (forwards, calls, puts, etc.) related to the Dow Jones Industrial Average. I used to work in management support (I now work in general banking), while my friend works on the trading floor. He is constantly tuned to the market, and in our game is often pressing me for quick buy/sell decisions. HP Calc helped out with these quick decisions.

Using the HP Calc's List Stat application (open HP Calc and press CTRL-L), I would quickly enter a list of a few dozen closing prices from the Dow Jones Industrial Average in the data item stack. For example, enter a sampling of Dow closing prices from September 9 to September 29: 4704.94, 4747.21, 4765.52, 4801.80, 4797.57, 4780.41, 4767.04, 4792.69, 4767.40, 4764.15, 4769.93, 4765.60, 4762.35, 4787.64 and 4789.08. Enter 4704.94 as item 1, 4747.21 as item 2, etc. Then press F9 (STATS) and HP Calc shows us the following Statistics screen (below).

The MEAN tells us that the Dow has been trading at an average level of 4770.89. It has been trading as high as 4801.80 (MAX), and as low as 4704.94 (MIN). The standard deviation (STDEV) is 23.84. In a normally distributed sample of numbers, about 68% of the numbers will fall within one standard deviation of the MEAN. By adding/subtracting the STDEV to/from the MEAN, I might guess that the Dow in the next three weeks will trade within the range of 4743.56 to 4791.24, and make buy/sell decisions based on that. The actual results were quite close to the high end of the estimate. Three weeks later on October 20,




List Statistics screen showing the mean value and standard deviation along with the minimum, median and maximum value.

ACCESSORIES FROM THE SOURCE

# If You Like Your HP Palmtop....

## THERE'S MORE!

## CONNECTIVITY

Palmtop software for your PC*

Transfer files effortlessly between your HP 100LX or 200LX and any DOS based PC

- Run on your PC HP 100/200LX Phone, Appointment, Database, NoteTaker, and HP Calc software
- Synchronize and merge Quicken®, phone, appointment, and database files between your Palmtop and PC
- Export and import HP100/200LX phone, appointment, database, and notetaker data to and from other PC applications (using comma delimited format)

9-pin connectivity cable

Serial connectors for PC, modem, or printer

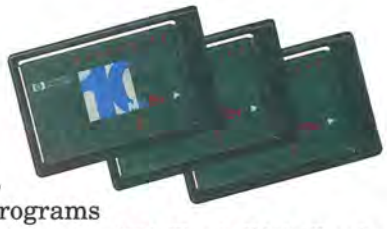
HP F1021B Connectivity Pack:
English manual, Multi-lingual software, Connectivity cable, Connectors.....$119.95 U.S. List Price

HP F1015A DOS-connectivity cable.....$24.95

HP F1023A Connectors for PC, Modem, Printer .....$24.95

HP F1016A Mac-connectivity cable.....$24.95

## STORAGE



- Keep more data, run additional programs wherever you go by using HP Flash Disk Cards.
- Back up your vital phone, appointment, 1-2-3, Quicken, database and other palmtop files.
- Plug your HP PCMCIA flash card into the Palmtop and it works just like a hard disk.
- Double the storage space of your HP Flash Disk Card — Stacker automatic compression software comes preloaded!

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| HP F1014B | **20-MB** Flash Disk Card | .....$999 |
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## AC/DC ADAPTER

Extend the battery life of your HP Palmtop and charge rechargeables with this light-weight adapter.
HP F1011A .....$39.95 U.S. List Price
OPTION ABA (U.S., CANADA, JAPAN), OPTION ABB (EUROPE), OPTION ABG (AUSTRALIA), OPTION ABU (UK), OPTION ACQ (SOUTH AFRICA)

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# Palmtop Accessories

## ACE↔FAX

**HP 100/200LX Send/Receive Fax Software**

- ✔ Send, Receive, View and Print Faxes on your HP Palmtop
- ✔ Full installation in less than 200k of disk space
- ✔ Requires *as little as 30KB* on C: drive for modem card users
- ✔ Auto installation program included

### ACE↔FAX
**Megahertz XJACK System**

- ✔ HP 100/200LX compatible
- ✔ Pop-out telephone connection
- ✔ No external phone adapters
- ✔ Easiest way to send faxes

### Direct Serial to Parallel Cable

- ✔ Connect to any parallel printer
- ✔ DIRECTcable version connects to HP Palmtop with no other cable required
- ✔ Powered by printer, no batteries
- ✔ Plug and play operation

Lower Prices!

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|---|---|
| *ACE↔FAX for HP 100/200LX* | *$29* |
| *ACE 14.4K Fax Modem with ACE↔FAX* | *$89* |
| *XJACK 14.4K/14.4K Fax/modem + ACE↔FAX* | *$119* |
| *ModemSaver (Test unknown modem jacks)* | *$29* |
| *CableCard (8ft phone cable in pocket card case)* | *$10* |
| *External 14.4K Pocket/Fax Modem + Direct cable* | *$249* |
| *Serial to Parallel Cable (requires HP serial cable)* | *$79* |
| *Serial to Parallel DIRECTcable (no other cable required)* | *$89* |
| *Pentax PocketJet Printer with DIRECTcable* | *$459* |
| *Pentax PocketJet DIRECTcable for HP Palmtop* | *$39* |

# HP Carrying Cases

| | |
|---|---|
| *Custom Black Nylon case* | *$19* |
| *Custom Black Leather case (shown)* | *$34* |
| *Deluxe Black Leather case (shown)* | *$44* |
| *Executive Black Leather Portfolio* | *$54* |

New Prices!

# Your Complete HP Porta

## 200LX Systems with DoubleFlash⊕Plus

**Available only from ACE, this complete package contains everything that you will need to start enjoying the full benefits of the HP 200LX!**

- ✔ ACE↔LINK file transfer software with HP-PC serial cable
- ✔ DoubleFlash⊕Plus hi-performance storage card
- ✔ BATTman 2.0 + Two 1100mAH high capacity NiMH batteries
- ✔ AppMAN! gives you complete control of DOS applications
- ✔ HP world-wide universal AC adapter

### 200LX 1MB Systems with DoubleFlash⊕Plus

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| *6M (up to 6MB)* | *$799* |
| *10M (up to 10MB)* | *$869* |
| *20M (up to 20MB)* | *$999* |
| *40M (up to 40MB)* | *$1,239* |
| *80M (up to 80MB)* | *$1,789* |

### HP 200LX Basic Systems

Lower Prices!

| | |
|---|---|
| *1MB with AppMAN!* | *$499* |
| *1MB with ACE↔LINK, PC Serial cable, and AppMan!* | *$519* |
| *2MB with AppMAN!* | *$649* |
| *2MB with ACE↔LINK, PC Serial cable, and AppMan!* | *$669* |

# ACE Softwa

## ACE↔LINK

***The simplest file transfer program for your 100/200LX***

- ✔ No Palmtop Software to download
- ✔ Use **FILER** to view and exchange files with your PC
- ✔ Connects at speeds up to 115K
- ✔ No installation - Can run from a floppy

| | |
|---|---|
| *ACE↔LINK with serial cable (C1260)* | *$39* |

## BATTman *version 2.0*

***Battery Management Software for HP 100/200LX***

- ✔ Use NiMH, NiCd, Alkaline or Lithium batteries in your HP Palmtop
- ✔ Predictive algorithm prevents loss of your valuable data.

| | |
|---|---|
| *BATTman 2.0 Battery Management Software* | *$39* |
| *BATTman 2.0 with 2 NiMH 1100mAH batteries* | *$49* |
| *BATTman 2.0 with 4 NiMH 1100mAH batteries & charger* | *$89* |
| *NiMH Battery Charger (4 AA capacity)* | *$39* |
| *Two 1100mAH NiMH rechargeable batteries (AA size)* | *$15* |

## ABLE COMPUTING SOLUTION

# OMNIGO

## New! OmniGo 100

**HP's first combination Pen and Keyboard Organizer Plus.**

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| ***OmniGo 100 Organizer Plus*** | ***$329*** |
| *F1311A PC Connectivity Pack with cable* | *$109* |
| *F1312A Clip and Go* | *$67* |
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# PDA DEVELOPERS

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This bimonthly technical journal provides in-depth technical information about developing software for OmniGo, HP LX-series, Newton, Psion, and Magic Cap devices. Each issue includes news and announcements, programming tips and techniques, product reviews and previews, and programs with detailed descriptions and sample code sample. Source code disk also available. For all technical levels.

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the Dow was at a level of 4794.86, just above one standard deviation.

This method is obviously very crude, and would be best used when prices are not swinging around widely. In practice I would want to look at a larger sample of historical data in order to determine a range or a trend. To do so these days, I go up on the Internet and download a year or two of historical data on various stocks for further analysis. I access the MIT Stock Page (ftp://ftp.ai.mit.edu/pub/stock /results), download the desired information and open the tab delimited text file I get using Excel 5.0 on my Windows desktop. I then make the necessary format conversions and save it in .WK1 format for use in the Palmtop's Lotus 1-2-3 program. When it is ready, I transfer it from the desktop to the Palmtop using filer and the HP Connectivity Cable, then simply open it as a Lotus file.

## HP Calc for quick financial analysis

Unlike many of my friends with educational backgrounds in economics or finance, mine is in journalism and literature. Because of this I've had to put attention on strengthening spreadsheet and math analysis skills and the HP Palmtop has helped me in this.

One particularly useful application in HP Calc is Time Value of Money (TVM). According to the Palmtop User's Guide it "... enables you to do compound interest, amortization and interest-rate-conversion calculations." I first discovered TVM's power when I was on a interest rate swaps pricing seminar in London.

You can use the TVM (or the Cash Flows) function to value fixed income securities. Say you wanted to figure out how much $1,000 would be worth in ten years time if you have an interest rate of 10% and annual compounding. From within HP Calc press [CTRL]-[T] to go to the TVM application. Clear existing data if necessary by pressing [MENU] Clear Data. Then enter **10** and press [F6] for the number of periods (N). Next, enter **10** and press [F7] for the annual interest (I%R).Then enter **- 1,000** and press [F8] for the present value (PV). Notice that there is a minus sign before the 1,000 figure because we are paying out the amount.

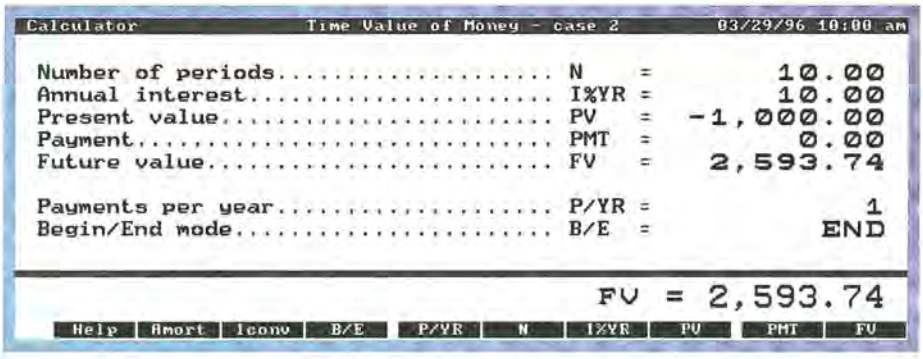
For payment (PMT), we type **0** and [F9] because we are not adding money to our original $1,000. Enter 1 and press [F5] to set payments per year (P/YR) because our money is compounded once a year. When all parameters have been set, press [F10] to see that the future value (FV) will be **2,593.74** (see below).

I am soon taking the Chartered Financial Analyst Level 1 Exam, part of a three-year accreditation program that covers accounting, financial statement analysis, securities valuation and portfolio theory. I have been using Memo to take notes while I pour over the required textbooks. The TVM and date calculation functions of HP Calc have been useful in my studying.

## Losing "streetsmarts" and my HP Palmtop

I lived in New York for about two years before moving to Switzerland more than a year ago. My trip to the U.S. showed me how quickly I had lost my streetsmarts. At the check-in counter at New York's JFK airport, a man tapped my brother on the shoulder to ask a question. I didn't pay much attention to the man because I was talking to the ticket agent. After the man left, I found that my briefcase had also "walked away" — and with it, my HP 100LX, a modem card and memory card.

I had been teased about the Palmtop being my "electronic brain," but didn't realize how true it was until my Palmtop was



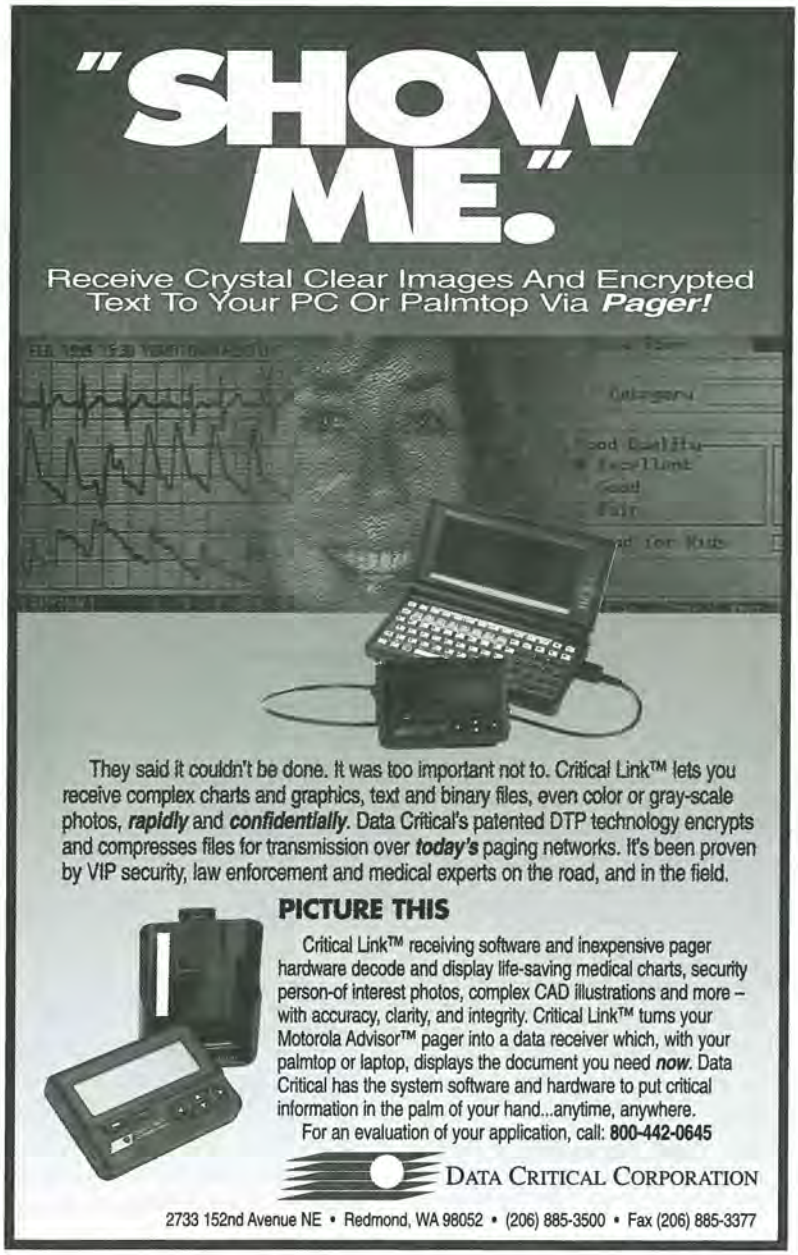

Use HP Calc's Time Value of Money function to calculate the future value of an investment.

stolen. All of my appointments, restaurant picks and phone numbers go into my Palmtop. I keep my files backed up, so I wasn't worried about losing data. My major concern was the security of sensitive information on the Palmtop. As a precaution I keep sensitive files password protected. Whenever I try to open that file, the Palmtop asks me for the password. Without the proper password, the file cannot be opened. To set this up, open the file you want to password protect in the appropriate application. Then press [MENU] File Password, enter your password, confirm it, and remember it! Whenever you open that file, you'll have to use the password.

The only problem with this arrangement is when you leave applications open. For example, you might open Phone Book, go to Appointment Book to enter a ToDo. If you don't press [MENU] Quit in Phone Book, it's still open. Press [PHONE] and you go straight to it without being prompted for a password. I don't remember which applications were open on the Palmtop when it was stolen. However, none of my accounts have been tampered with, so it seems that luck has been on my side.

### My Quicken checkbook

When I got back to South Carolina, I found I needed a Palmtop. I immediately began combing the electronics and discount stores. I considered buying a refurbished HP 100LX (I don't mind saving a buck), but I chose to buy a new HP 200LX because it comes preloaded with Pocket Quicken. I'm more apt to stay disciplined if I can keep my checkbook with me all the time, instead of on a full-featured, but very un-portable desktop system. I had been looking to move my personal checking to a handheld system. The HP Palmtop/Quicken combination seemed the perfect answer.

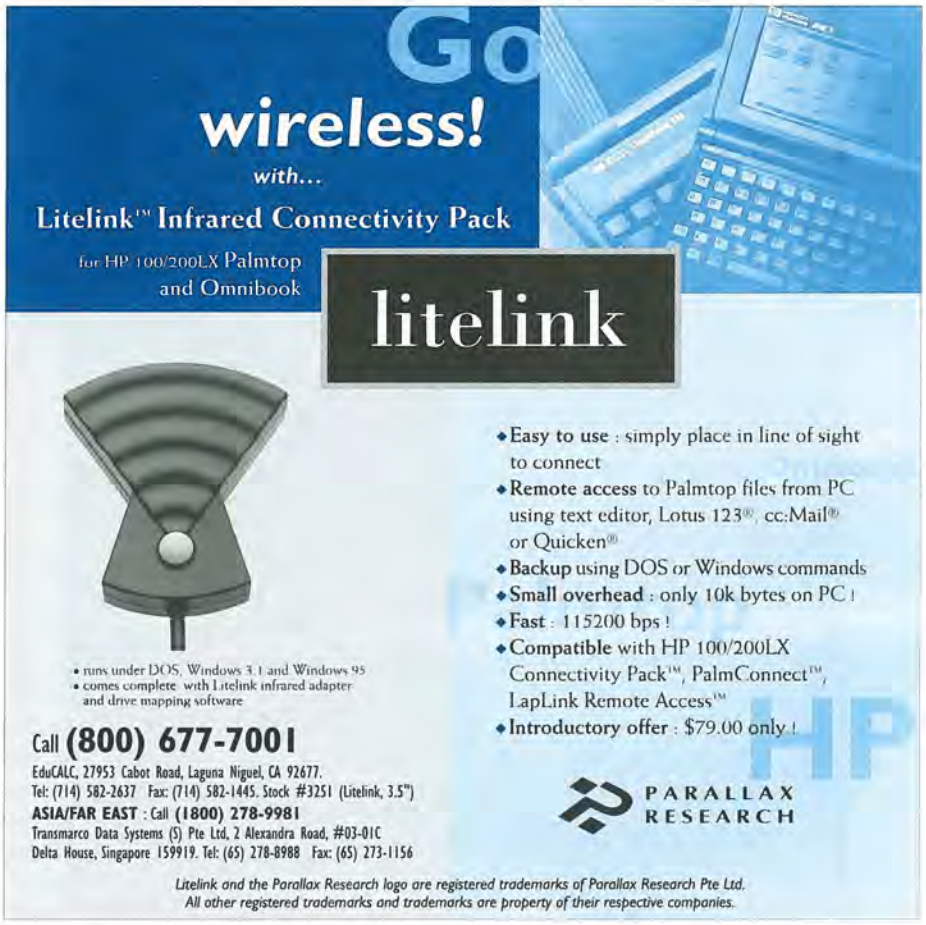





How do I use Quicken? I am paid in Swiss francs (CHF), but I have credit cards, student loans and a checking account denominated in U.S. dollars (USD). I keep two different Quicken files — one for each currency. "USD" includes my Visa, Mastercard, mutual funds and other information, while "CHF" includes my Eurocard (debit card) and Swiss bank account information. Quicken does not readily allow for currency conversion, but the conversions/currency function of the HP Calc allows me to take a spot look at my CHF account in USD and vice versa.

### On vacation — so I thought

After buying my HP 200LX in South Carolina, I immediately got the opportunity to try my Palmtop in a business setting. A few days before the scheduled end of my vacation, I got a call from one of my colleagues in Zurich. Weeks earlier we had asked one of the bank's senior executives to speak at a derivatives conference in New England. We had promised to help




him draft the presentation if his office so requested. Sure enough, they did. I was asked to drop by the New York office to take care of the presentation.

It was difficult to find a computer in the New York office on short notice, so I pulled out my Palmtop and started the first outline in Memo. I promised one of the senior managers that I would dash a copy to him for his review that afternoon, and I hammered out an early version. I had no printer cable or available printers, so I ran down to an electronic store near Grand Central Station and did some quick bargaining. I returned with a modem card and an ACE Doubleflash memory card. After playing with the settings, I finally was able to log into CompuServe from my hotel room, and I send my outline to the manager's fax machine using the CompuServe fax gateway.

A colleague was later able to get me a laptop computer, and I began using it for subsequent drafts. However, I kept a version of the speech on my Palmtop and was able to refer to it later while discussing the structure of the speech with the man who was to give it. I eventually finished the speech back in Zurich.

## Sharing information at home and abroad

One of the HP Palmtop's strong points is that it's there with you whenever you need it. Another is that you can easily send messages and transfer files to family, friends, co-workers, and to other computers you use. I've already mentioned my use of CompuServe for this. At home, I use MacKermit (KERMIT.ZIP 💾) to transfer and backup files between my Apple Powerbook and my HP Palmtop. The process is quite easy using Craig de Fasselle's suggestions on MAC to HP Connectivity (see page 29 of the Sep/Oct 94 issue of *The HP Palmtop Paper*). For file transfers, you can set the speed as high as 57,600, but I find that 9,600 ensures fewer errors. I have very few files that are so large that I am bothered by the slower speed. I can open and manipulate Memo text files and other data files on my Mac using the ClarisWorks program.

The Palmtop's built-in applications are excellent for keeping track of appointments, projects, and vital contact information. However, there are other good personal information and contact managers available for desktop PCs. We once experimented with both ACT and Lotus Organizer to test the feasibility of using another PIM on our desktop PCs and transferring files between them and the HP Palmtop. The **ACT!** contact manager was considered because it could be networked on a Windows-based system. In addition, there is a version of ACT! for the HP Palmtop, and a version of ACT! for the Mac, which I use at home. We finally decided to stay with Lotus Organizer, which we had been using on our desktops for some time. We shared information between the Palmtop and Lotus Organizer on the desktops by using Intellilink to translate Phone Book and Appointment Book files from the HP Palmtop to Lotus Organizer format.

One final note on sharing information. According to our company's information technology support people, our network is set up to have internal cc:mail forwarded to a global gateway where it can be retrieved with proprietary software in our major centers in London, New York, Tokyo, Singapore and Hong Kong. Senior management would like to be able to get this functionality on the HP Palmtops.

**Product Index: page 51**
**Share/Freeware Index: page 52**

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# Create a Relational Database Using Palmtop Built-In Applications

*Ed shows how to link a PhoneBook containing Palmtop vendor contact information with a DataBase of Palmtop vendor products using System Macros and the built-in Subset Selection Language (SSL).*

*By Ed Keefe*

The DataBase application in the HP 100LX/200LX is one of the most powerful and at times most bewildering features of the Palmtop computer. What makes it bewildering is the number of buttons to push to make things happen. What makes it powerful is the "DataBase engine."

The DataBase engine is actually a group of functions built into the HP 100LX/200LX that drives the PhoneBook, Appointment Book /To-Do List, NoteTaker, and World Time applications. HP developed each of these different applications by modifying and extending the basic DataBase engine in different ways. HP even made it possible for users to develop their own DataBase application, and the thing that makes this possible is the clever use of a "Fourth Generation Programming Language."

## Fourth Generation Languages (4GLs)

A 4GL lets you specify *what* you want the computer to do and then the 4GL figures out *how* to do it for you. A good example of a 4GL is Lotus 1-2-3 in which you tell the computer, for instance, "Here's a list of numbers. Add them up and show me the answer." You type in a function, @SUM( A1..B21), and the computer figures out how to find the numbers, add them, and show you the answer. In a third generation language, such as Pascal or C/C++, you'd have to write a lot of code to tell the computer how to find the numbers, how to add them, and how to display the answer.

Likewise, if you wanted to develop a DataBase program, you could use a third generation language such as TIPI, or C/C++ and eventually get the job done. With the 4GL language built into the DataBase engine, you merely fill out a form on the screen by picking options from a menu. You can add fields for Text, Numbers, Group Boxes and Option Buttons, a Category and a Note field merely by picking these field types from a dialog box. You can then move and re-size the fields on the screen with the arrow keys. When you're satisfied with the appearance of the "form", you press F10 [Done] and the 4GL takes over and creates a custom DataBase program for you.

To get a formatted printout of the data, you can use another part of the 4GL called "Smart Clips" in which you "paint a picture" of the output on the screen. The DataBase 4GL then writes all the code to produce the printed report. It's all very slick and sophisticated.

## Limitations of the DataBase engine

For all its sophistication, the DataBase engine does have its limitations. For one thing, it doesn't have any number crunching capability. Sure, you can use a combina-

**ABOUT THE AUTHOR**

Ed Keefe is an author, programmer, computer science instructor, and long-time contributor to support publications for HP computers. He is also the president of the FastAid Company, 314 S.W. Logan, Ankeny, IA 50021, U.S.A. Ed's CompuServe ID is [75300,3667].

tion of Smart Clips to write the information to a file, import the file into Lotus 1-2-3 and, using the parsing feature of the spreadsheet, isolate the numbers and add them up. The article on page 44 of the March/April 1995 issue of *The HP Palmtop Paper* shows how to do this.

A more pronounced limitation of the DataBase engine is its lack of any relational capabilities. The DataBase engine in the HP Palmtop uses a "flat file" approach to storing and retrieving data. Other DataBase engines such as Borland's Paradox and dBASE or Access, from Microsoft, use a relational approach to handling data. In a relational database, for instance, you can designate one or more fields as "hot-links" to records in another database. The greatest advantage to using a relational model for a database is that you can save disk space and reduce the time needed to edit or modify the data. The greatest disadvantage to using a relational database is the learning curve. Creating databases that incorporate several data files and getting them to work is a technique best left to professionals (and even they don't always get it right.) Trying to write a User's Guide for such a relational database would take a book at least as big as the current *Palmtop's User's Guide* and a support staff that would rival that of Borland, Inc.

### Creating a custom DataBase for products and vendors

To illustrate the advantage of using relational database techniques, I'll take a real world example.

In the course of writing a forthcoming book on the HP Palmtops, I began to develop a database of all commercial, third party products for these machines. Preliminary research turned up almost 300 such products available from 160 different vendors. I started out using a database that had only one data file (a "flat-file" database). Each record in the PRODUCTS.GDB database file contained fields that gave the name, address and telephone number of the vendor. However some vendors had 18 or more different products. I realized that I was duplicating a lot of information in 18 different places. That might be acceptable for a "one-time" use of the database, but what if the database was to be used for the next couple of years. And suppose a vendor moved or changed telephone numbers? Could I be sure that I had updated all 18 entries for the address and/or phone number?

### Breaking up is hard to do

Instead, I chose to break the single file into two data files: one a DataBase file called PRODUCTS


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.GDB and the other a PhoneBook file called VENDORS.PDB. The latter file contained all the information about the vendor. The full name of the vendor went in the Company field while the Name field contained an abbreviation for the vendor.

In the PRODUCTS.GDB file (see example at bottom of page) I put the same abbreviation for the Vendor in the Cont(act) or Alt(ernate) fields.

This arrangement was fine, as far as it went. The net saving was about 14,000 bytes of disk space. However, it meant that each time I wanted to search for all the information about a product I had to open the PRODUCTS file and the PhoneBook file and perform two separate searches. A relational database program, such as dBASE IV would let me do this by creating a "Query." For example, with dBASE IV, I could set up a Query so that it would find all the products sold by ACE Technologies or show the FAX number of ACE given just one of the products from ACE. dBASE would open both files at once and "relate" one file to another before performing the search.

## Emulating a relational database on the Palmtop using two macros

What I needed was a relational database program like dBASE III+ that would let me query one file using information in another file. I'd experimented with dBASE on the HP 100LX and found that it worked, but it soaked up a lot of disk space and had to be used in 80 X 25 mode. I wondered if dBASE's Query operation could be emulated using the HP DataBase. After a little experimentation, here's what I came up with.

The following two macros let me flip from my Products DataBase file to the Vendors PhoneBook file with a minimum of fuss and bother. I could pick a product, use it to find the information about the vendor and then hop back to the Products DataBase and find all the products offered by that Vendor.

MACRO 1
(Assigned to Fn+F5, to go from PRODUCTS to VENDORS)

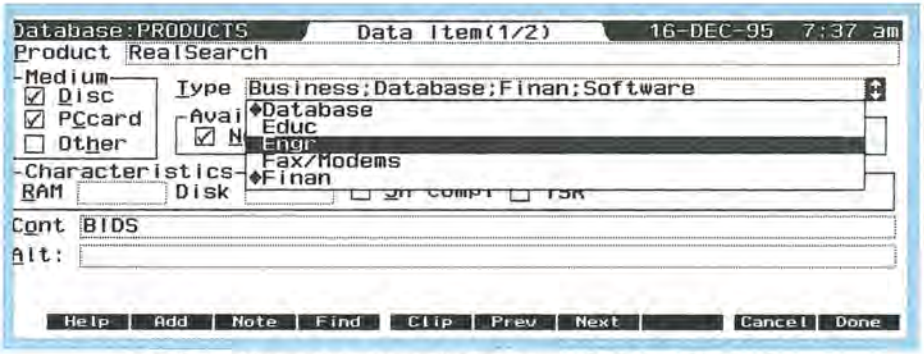
```
{Esc}{Enter}{Alt+O}{Ctrl+C}{F10}
{Phone}{Menu}fovendors.pdb{Enter}
{Home}{F4}{Ctrl+V}{Alt+N}
```

What the macro is telling the Palmtop to do: After closing and opening the Data Item screen, hop to the Cont(act) field and Copy its contents to the clipboard. Activate the PhoneBook application and open VENDORS.PDB. Go to the first item in the list (Home) and activate the Find operation and paste the clipboard into the dialog box and search for the first instance of the field.

MACRO 2
(Assigned to Fn+F6, to go from VENDORS to PRODUCTS and find all the products from a given Vendor.)

```
{Esc}{Enter}{Alt+M}{Ctrl+C}{F10}
{DataBase}{Menu}foproducts.gdb
{Enter}{Home}{F6}{Alt+D}{F2}(Cont#"")|
(Alt#""){Left}{Left}{Ctrl+V}{Home}
{Right}{Right}{Right}{Right}{Right}
{Right} {Right}{Ctrl+V}{F10}{F10}{F10}
```

What the macro is telling the Palmtop to do: After making sure the Data Item screen in the PhoneBook is active {Esc}{Enter}, hop to the Name field {Alt+M} and copy the field to the clipboard {Ctrl+C}. Close Phone Item screen and open the DataBase application {F10} {Database}. Open PRODUCTS.GDB {Menu}foproducts .gdb{Enter} and go to the first item in the list {Home}. Open the View Subset dialog box {F6}, Define a new subset {Alt+D}, and then specify that you want a General Subset Entry {F2}. The macro enters the string (Cont#"") | (Alt#"") and then uses the cursor movement commands {Left}{Left} {Ctrl+V} to paste the contents of the clipboard inside the two double quotes. The "#" sign is the SSL operator that means "Test if a field contains a string" In this case the SSL command tests if the string (e.g. "ACE") is contained in either the Cont or Alt fields. If the string is found, add this record to the subset {Right}{Right}{Right} {Right} {Ctrl+V}. The final repeated {F10} commands start the search, create an Unnamed subset and show the subset on the screen.




Individual item data screen for Products DataBase showing information about a product named "Real Search." The Vendor abbreviation "BIDS" is in the Contact field.

## Further refinements

The trick of using the PhoneBook and custom DataBase in tandem will work with any two (or more) DataBases. In other words you don't need to make one of them a PhoneBook. Another trick: you don't need to open it in the PhoneBook application to get at the data. You can load any PhoneBook file into the DataBase application (or any custom DataBase file into

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the PhoneBook as long as you rename the file so that it has the .PDB file extension).

I chose to follow this approach so that I could keep my main PhoneBook open and to simplify matters. I renamed VENDORS.PDB to VENDORS.GDB just to make sure that I wouldn't accidentally open the VENDORS.PDB file in both the DataBase and PhoneBook at the same time. (Doing so could lead to loss of data.) Then I rewrote the macros above on the assumption that I'd have one or the other (PRODUCTS or VENDORS) loaded in DataBase. This let me eliminate the commands {Database} and {Phone} in the above macros. Everything else remained the same. At this point the biggest task was keeping the macros straight. As a memory aid, I put the following reminder in the note field of the first record in the PRODUCTS.GDB file: "To GO TO VENDORS, pick a product and press (Fn)-(F5). Likewise in the VENDORS.GDB file, I made the note field in the first record read: "To GO TO PRODUCTS, pick a Company and press (Fn)+- (F6)".

### SSL — the Subset Specification Language

The Subset feature is the strongsuit of the DataBase engine. It lets you select and view smaller portions of one of the DataBase-related applications. From a DataBase application press [F6] [F2] to define your Subset. From the Define Subset screen press [F2] again to access **General Subset Entry** screen, which lets you use the Subset Specification Language (SSL) to create subset criteria as command statements that are too complex for the Define Subset screen. To learn more about Subsets and SSL, refer to your *HP 100/200LX User's Guide*. Once you've read through the User's Guide and have done some experimenting, you should be able to get by with the on line help in the Palmtop.

In the above macro examples I used the "#" "relational" operator along with the "|" "Logical" OR operator. The DataBase SSL has a full range of such operators including NOT, AND, Greater Than, Less Than, Equal To, Not Equal. If you're not familiar with the use of relational and logical operators, you can stop short of SSL and fill in the details of a subset using the first Subset Entry screen. Once you've created and saved a Subset, simply press [F6] from the main DataBase screen, select the desired Subset and press [F10]. The Subset feature will take over and perform the search for you.

I used the SSL rather than the simpler method to create the Subset because I wanted to do an "OR" search based on the information in the Cont and Alt fields of my Product DataBase. If, for example, I was looking for the vendor information for ACE, I'd be looking for ACE in either of these fields. If I had put ACE in both the Cont(act) and Alt(ernate) fields in the Define Subset Screen, I'd come up with an empty subset because the DataBase interprets this as an "AND" search (Cont#"")&(Alt#"") rather than an "OR" search (Cont#"")|(Alt#""). I needed the SSL to specify the "OR" search.

The Subset Specification Language is available not only in the DataBase Application, but also in PhoneBook, NoteTaker, and WorldTime.

### Pushing the Envelope

For those of you who enjoy exploring all the nooks and crannies of the HP Palmtop, the DataBase engine contains several "undocumented features." Dave Smith is someone who has let curiosity get the better of him and has done a thorough job of tracking down what others have hinted at. You can view his discoveries in the file DBFEAT.ZIP. To paraphrase my standard instructional line: "It is left as an exercise for the reader to find a use for these undocumented features."

Until next time, Happy Programming.

Share/Freeware Index: page 52

123

## Using 1-2-3: Lesson 5

# Modifying a Spreadsheet is Easy, but Be Careful How a Change Effects Your Formulas

*Fifth in our series on Lotus 1-2-3, this article shows how easy it is to copy, move, insert and delete rows and columns in your spreadsheet. But be careful! Changing a spreadsheet can effect formulas in unexpected ways.*

*By Carl Merkle*

We started out this series of articles discussing the basics of 1-2-3 Release 2.x for new and first time users. The first two articles (Vol.4, No.4, Pg.32 and Vol.4, No.5, Pg.34) discussed how to read the 1-2-3 screen, what a cell is, how to enter data (both numbers and labels) into a cell, how to move around in the worksheet using the arrow keys, and how to save and retrieve worksheets. The third article (Vol.4, No.6, Pg. 54) showed how to use Lotus 1-2-3 as a sophisticated database that automatically calculates totals. The fourth article (Vol.5, No.1, Pg.34) discussed formulas and @functions, with an introduction to range names.

This article discusses the basics of spreadsheet modification commands (Copy, Move, Insert and Delete rows and columns) and the impact of those commands on formulas with absolute and relative cell addresses. We'll define all these terms as we go on.

### The cut-and-paste commands

Editing an old-fashioned paper spreadsheet was a tedious and time-consuming process. You needed a pair of scissors, a roll of tape (or glue), an eraser, a pencil — and a large dose of patience! You used the scissors and tape to delete and move entire rows and columns of the spreadsheet. You used the pencil to enter and copy information. You used the eraser to delete or correct mistakes. You used the patience to survive the process.

Electronic spreadsheets make the whole process simpler and less prone to error by automating the calculation of the data, and by making the modification process easier. 1-2-3 has 10 built-in spreadsheet modification commands that take the place of the four manual spreadsheet editing tools described above. It is much easier and quicker to edit an electronic spreadsheet than an old fashioned paper spreadsheet if these commands are understood and used. The commands are shown in the sidebar on the next page.

The previous articles have already shown how easy it is to use spreadsheet modification commands to copy and move simple numbers and text. However, some

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## Spreadsheet modification commands

Press these keys — Result

[MENU] Copy — Copy the contents of a cell or range of cells to another location in the spreadsheet.

[MENU] Move — Move the contents of a cell or range of cells to another location in the spreadsheet.

[MENU] Range Value — Converts a range of formulas to its displayed values.

[MENU] Range Transpose — Changes a range of rows to columns, or columns to rows.

[MENU] Range Erase — Erases data in a of cells.

[MENU] Range Justify — Rearranges long labels that extend beyond the width of the column or columns they are in so that they are contained and displayed in concurrent cells in one or more specified columns.

[MENU] Worksheet Insert Column — Inserts one or more columns into a spreadsheet.

[MENU] Worksheet Insert Row — Inserts one or more rows into a spreadsheet.

[MENU] Worksheet Delete Column — Deletes one or more columns from a spreadsheet.

[MENU] Worksheet Delete Row — Deletes one or more rows from a spreadsheet.

Additionally, the [DEL] key can be used to erase the contents of a single cell, and on the HP Palmtop the [Fn]+ [COPY] and [Fn]+ [PASTE] keys work as well.

care must be applied when using these commands with cells or ranges of cells that contain formulas with "relative" and "absolute" cell addresses.

### "Relative" and "Absolute" cell references

In a previous issue we discussed how to create a formula in 1-2-3 and how the formula could be copied (or the spreadsheet modified with inserted and deleted rows) with 1-2-3 automatically adjusting the formula to reflect the proper relative addresses. For example, we have discussed in the past how to use the [MENU] Copy command to copy the @function @SUM(C18..C1) from cell C19 to cell D19. When we did this, 1-2-3 automatically adjusted the cell references relative to the original formula's position and placed @SUM(D18..D1) in cell D19. The cell reference C18..C1 is an example of a relative address. When you move it, it automatically adjusts to the correct address relative to the new column or row it is in.

In 1-2-3 there are three kinds of cell references for formulas: relative references, absolute references and references that mix the first two. As described above, relative cell references will change as you copy or move the formula to another column or row. Absolute cell references in a formula never change. The only visable difference between the two types of cell references is that absolute cell references have a dollar sign "$" placed in front of the column letter and row number of the cell. In the example above, when we copied @SUM(C18..C1) to cell D19, the cell references changed. If the @function had been @SUM($C$18..$C$1), the exact formula would have been copied over with no changes.

I bring the subject up here because the difference between absolute and relative cell references becomes very important when you begin to use the spreadsheet modification commands like Copy, Move, Insert or Delete rows and columns.

Mixed references are a single cell reference that is part relative and part absolute. (We will demonstrate a couple of practical day-to-day examples of mixed references later in this article.) You can specify a mixed references in a formula by typing a dollar sign $ before the column or row coordinates of the cell address. An example will help clarify this.

Using the above @SUM function as an example, you might have the following addresses:


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@SUM(C18..C1)
— relative cell addresses.
@SUM($C$18..$C$1)
— absolute cell addresses.
@SUM($C$18..C1)
— absolute and relative addresses.
@SUM($C18..C$1)
— mixed addresses single address part relative and part absolute.

### Copying a mixed address

For example, enter a formula in cell B2 that contains an absolute reference to cell A1. A simple example of such a formula might be +$A$1. The plus symbol insures that the reference is not read as a label. Also, it is easier to enter. If your cell pointer is in B2, you can enter this formula by just typing + and then use the ArrowKeys to move the cell pointer to cell A1. Then press F4 and ENTER. If you copied this formula elsewhere, it would not change.

Change the formula in cell A1 to either +$A1 or +A$1 and you now have a mixed cell reference. Copy this formula elsewhere and it may change, depending on where you copy it. The effect of copying these specific absolute or mixed cell references is reflected in the table below. Notice that if the column reference is absolute, it remains fixed if copied across columns. Notice that if the row reference is absolute, it remains fixed as copied down rows.

+$A$1 copied from B2 to cells B2 through D4

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | +$A$1 | +$A$1 | +$A$1 | |
| 3 | +$A$1 | +$A$1 | +$A$1 | |
| 4 | +$A$1 | +$A$1 | +$A$1 | |

+$A1 copied from cell B2 to cells B2 through D4

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | +$A1 | +$A1 | +$A1 | |
| 3 | +$A2 | +$A2 | +$A2 | |
| 4 | +$A3 | +$A3 | +$A3 | |

+A$1 copied from cell B2 to cells B2 through D4

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | +A$1 | +B$1 | +C$1 | |
| 3 | +A$1 | +B$1 | +C$1 | |
| 4 | +A$1 | +B$1 | +C$1 | |

You can use the ABS key (F4) to define absolute and mixed references.

### The percent of total example

Now we'll construct a simple spreadsheet to demonstrate some absolute and relative cell referencing concepts. First create a new spreadsheet by pressing MENU Worksheet Erase Yes. Have it display values in the comma format by pressing MENU Worksheet Global Format , (comma) 0 ENTER. In cells B3 through B7 enter **North**, **South**, **East**, **West** and **Central**. In cell C2 enter **Sales** and in cell D2 enter **Percent**. Fill in the numbers in C3 through C7 as follows:

North = 9,877
South = 4,387
East = 6,307
West = 7,429
Central = 3,981

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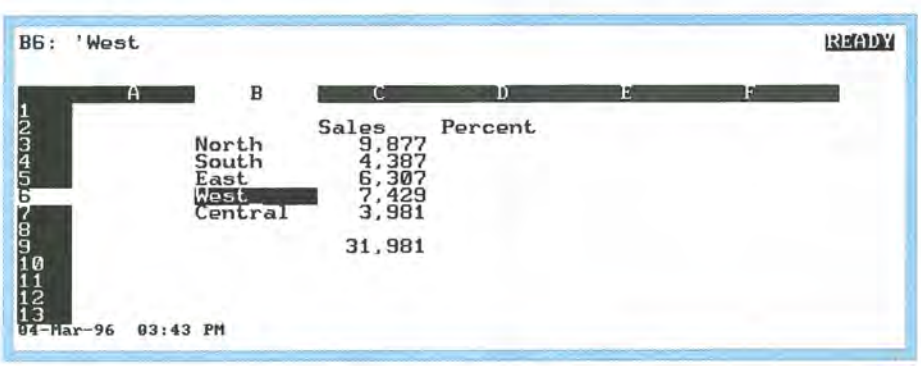
Now enter **@SUM (C2..C8)** in C9 to total the amounts in column C. Your worksheet will appear as shown below with **31,981** as the sum. (The spreadsheet example used in this article appears as LOTUS26.WK1, archieved in LOTUS26.ZIP on the HP Palmtop Paper ON DISK.)

Now we want to set up cells D3 through D7 so they display the percentage of total sales. We could manually enter a formula in cell D3, but let's learn what I call the "point-and-shoot" method of creating the formula.

1. In cell D3 press [+] and then LeftArrow once. Notice that the second line of the control panel (second line, top left of screen) now reads **+C3**. (I use + to start many formulas because it's easy, but other valid value characters, like the minus sign, can also be used.)

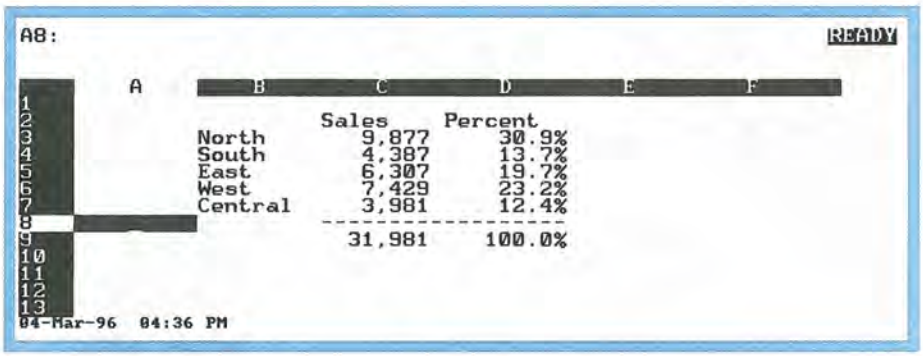
2. Next press [/] (forward slash or divide sign). The cell pointer (a.k.a., highlight bar or cursor) will return to cell D3 and the control panel now reads **+C3/**.

3. Then press the ArrowKeys to move the cell pointer to cell C9, but DO NOT HIT ENTER YET! You'll know you are there when the second line of the control panel says: **+C3/C9**.




Example sales spreadsheet

Before we go any further, we should think ahead and consider how our sales spreadsheet might change in the future. Right now, our sales figures are listed in column C. Let's say they represent sales figures for the 1st quarter of the year. When the next quarter rolls around, we might want add a column between C and D and copy the @SUM formula in C9 to D9. The percent of total sales formula we've been building so far reads **+C3/C9**




Completed percent of total spreadsheet.

(the sales figure for the North divided by the total sales figure). As we add sales quarters and columns, notice that the total for that quarter will always appear in row 9, but will change to subsequent columns. The total for the 1st quarter is in C9, the 2nd quarter will be in D9, the 3rd quarter in E9, and so on. The number part of the cell reference remains the same (absolute) but the letter part changes (relative). We want the formula we are building to read **+C3/C$9**.

4. Now press (F4) (Abs). Notice that the second line of the control panel is modified to read **+C3/$C$9**. The C9 cell reference has been changed to an absolute reference. Subsequent presses of F4 will change the C9 reference to the mixed references **+C3/C$9**, **+C3/$C9** and finally back to **+C3/C9**. Cycle through the references until you get to the mixed reference **+C3/C$9**. Then press ENTER twice.

Notice that the number in cell D3 is **0** rather than some percent. To change that, press MENU **R**ange **F**ormat **P**ercent **1** ENTER. Just format cell D3 for now. The percent **30.9%** should appear in cell D3.

### Copying formatted cells

With the cellpointer resting on cell D3, notice that the first line says **D3: (P1) +C3/C$9**. The P1 designation means the cell is formatted to display its contents as a Percent, with one decimal place. Use the copy command to copy the formula in cell D3 to D4 through D9. (With cell pointer on D3 press MENU **C**opy ENTER . Use DownArrow to move the pointer to D9 and press ENTER. Wrap up the chart by entering \- in cells C8 and D8. You should have a screen that looks like the one at the top of this page.

Notice that numbers displayed in cells D4 through D9 are also formatted as percentages. The rule is that when you use the MENU **C**opy command to copy the contents of a formatted cell to another location, that cell's format will be copied along with the contents of the cell. You can use this characteristic of 1-2-3 to your advantage. Whenever you need to format and copy, you'll frequently save time by formatting first and then copying the formatted entry, instead of copying first and then formatting all of the copies.

### There are many ways to accomplish the same thing in 1-2-3

One of the greatest strengths of an electronic spreadsheet is also it's greatest weakness — significant

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flexibility. There are many ways to accomplish the same task and no method is wrong if it does the job adequately. However, choosing between a number of possible ways to accomplish a given task can be confusing, especially to an inexperienced spreadsheet user. Some solutions are prefered because of their elegance and their ability to handle normal spreadsheet modifications. Without an understanding of the whole — what you want to accomplish with a particular spreadsheet — it's easy to choose a way to do something that paints you into a corner.

For example, let's demonstrate two ways of creating cummulative totals formulas (like you might use in an electronic checkbook to add up a column of numbers). One way approaches the problem the same way people approach the task manually. It works, but is a little problematic when modifying the worksheet. The other way takes a little longer to construct (and provides a lesson in editing the contents of a cell) but is more flexible when making spreadsheet modifications - specifically when deleting or inserting rows - a common expected activity.

Modify the "Percent of Total" example we started above as follows:

1. In cell E2 enter the label "**Total1**".

2. In cell E3 enter the formula **+E2+C3**.

3. In cell F2 enter the label "**Total2**" and then move the cellpointer to F3.

4. In cell F3 type **@sum(** and then move the cell pointer to cell C2 and press . (the period key). The second line of the control panel should now read **@sum(C2..C2.** Press the down arrow key once so that the second line of the control panel displays **@sum(C2..C3** and then press F4 to create absolute cell referencing. The second line of the control panel should now diplay **@sum($C$2..$C$3**. Then press the close parenthises key. DO NOT PRESS ENTER YET!

The next thing we need to do is change the @SUM function in cell F3 so that the first cell reference is absolute and the second is relative (i.e., we want it to read $C$2..C3). We are still in the VALUE mode ("VALUE" displayed in upper right of screen), which means we can't just press the left arrow key to move over to $C$3 and delete the dollar signs. In the VALUE mode, 1-2-3 would interprete that keystroke as a cellpointer movement and cause the formula to be entered in cell F3. Go ahead and try it! Press the left arrow key (BUT DON'T PRESS ENTER). Notice that 1-2-3 entered the formula in cell F3 and moved the cellpointer to cell


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E3. That's not what we wanted to do, so move the cell pointer back to cell F3. We'll edit the formula to change $C$3 to C3.

### Editing formulas

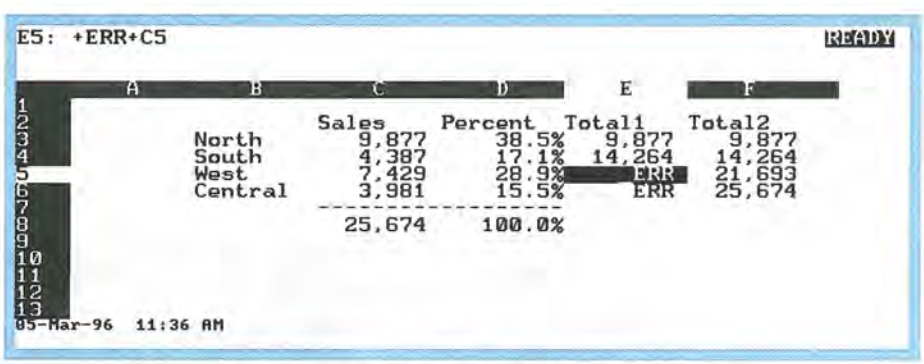
There are two major ways of replacing a cell's contents. First, you can type over it, and second, you can edit the entry by moving the cell pointer to the desired cell and pressing [F2]. Let's see how to edit the @SUM function in cell F3.

5. With your cellpointer in cell F3, press [F2] (Edit). Notice that 1-2-3 places the formula **@SUM($C$2..$C$3)** back on the second line of the control panel and that 1-2-3 is now in EDIT mode ("EDIT" in top right of display).

6. Press the left arrow key three times to move the cursor to just below the $ between the C and 3. Press [DEL] to remove the dollar sign. Now move the cursor one space to the left (below the C) and press the backspace (not left arrow) key to back up over and delete the dollar sign in front of the C. Press [ENTER] to leave the EDIT mode and complete the modification. The first line of the control panel should reflect the formula as **@SUM($C$2..C3)**.

Edit mode is valuable for correcting long or complex entries. As mentioned, the cursor can be moved one space at a time to the left or right by pressing the left or right arrow keys. (It can be moved five spaces at a time to the left or right by holding down [CTRL] and then pressing the left or right arrow. Press [Fn]- [LeftArrow] (HOME) to move the cursor to the first character in the cell and [Fn]- [RightArrow] (END) to move to the last character.

When 1-2-3 is in VALUE or LABEL mode pressing F2 will place 1-2-3 in edit mode. When 1-2-3 is in EDIT mode pressing F2 will place it in VALUE or LABEL mode. F2 then acts as a toggle key. Knowing this can be useful when editing long and complex formulas. Also you should be aware that while 1-2-3 is in edit mode pressing [F4] (Abs) will toggle through absolute cell referencing on the cell reference that the cursor happens to be under at the time.




Deleting rows can cause formulas with relative addresses to stop functioning properly.

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### Impact of spreadsheet modifications on different formulas

Move your cellpointer to cell E3 and press [MENU] Copy. Copy E3 through F3 to E3 through E7. Both totals columns should have the same results. However now we'll observe the impact of deleting a row on these formulas. To do this move the cellpointer to cell E5 and the press [MENU] Worksheet Delete Row [ENTER]. Your spreadsheet should display the screen shown at the bottom of this page.

Notice that the formulas in column E below the deleted row "blew up" (they now display error for the cell contents). This is because each formula in column E references the cell just above it (e.g., the formula in cell E3 is +E2+C3, which references cell E2, and so on). When we deleted row 5, we deleted cell E5, and cell E6

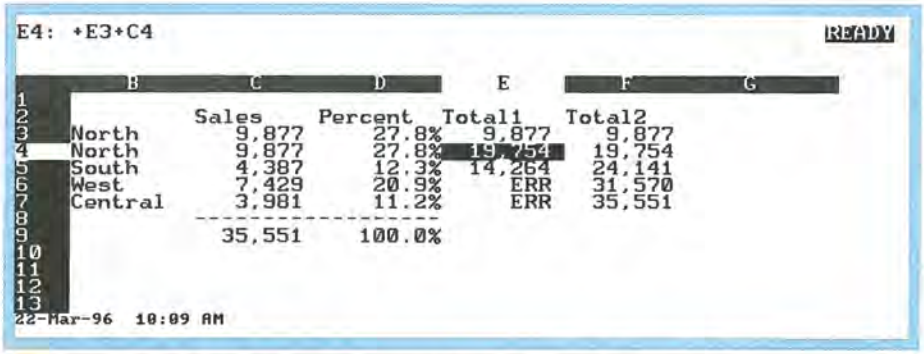
became E5. Lotus attempted to move the formula previously in E6 (i.e., +E5+C6) to cell E5, but the +E5 cell reference in the formula no longer made sense. The same was true for E7 moving to E6, but not for the formulas in column F.

Let's also observe another difference with inserting rows. Let's say we wanted to add a NorthEast region to our sales worksheet. The easiest way to do that is to insert a blank row and copy the formulas from one of the other rows into it, and modify the sales numbers. Move the cellpointer to cell E4 and press [MENU] Worksheet Insert Row [ENTER]. Then move the cellpointer to B3 and copy the contents of the "North" row, B3 through F3, to B4. Your spreadsheet should look like the one above.

Notice that there are now two "North" columns. It's easy enough to change the name in B4 to "NorEast," but for the moment lets not change the sales figures. That is, let's assume that the sales figures for the North and NorEast are the same.

Notice that the figures in the E column don't make sense anymore. The column is supposed to give a running total of the regions, but the running total for the two North and the South regions is less than the total for the two North regions. The running totals in the F column are accurate. The mixed formulas in column F proved to be most flexible under editing circumstances.

In this example 1-2-3 did what it was told and behaved predictably with the insert and delete rows commands. The challenge to you as the user is to construct formulas that will produce the results you want when you perform predictable spreadsheet modification commands. This will not always be intuitive and will at times take some thought, and trial and error. Of course, the trick like the one you just learned for creating a running total will come in handy. Using absolute cell references at appropriate places and understanding how to edit and modify formulas will greatly improve your spreadsheet skills.




Adding a row to a spreadsheet can cause formulas with relative references to not function properly.

You may also want to explore and play with the various spreadsheet modification commands to further understand what happens to formulas as you use those commands. You should work with non-critical data to start. If you experiment with critical data, you may want to keep the undo feature on (use the F1 key to get instructions on using Undo) until you feel comfortable with your level of knowledge.

Share/Freeware Index: page 52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✓ **Specify exactly what data to send and where**
Use custom field maps and filters to customize your transfer. Transfer only the data you need; ignore what doesn't need to be updated.

**Supported Applications**

| | | | | |
|---|---|---|---|---|
| ACT! for Windows 1.1/2.x | Commence 2.x | Excel 5.0/7.0 | PackRat 4.1/5.0 | Windows Cardfile/Calendar |
| Advantage 1.0 | Day-Timer Organizer 2.x | Lotus Organizer 1.x/2.1 | Paradox 3.5/4.0/5.0 | Word for Windows 6.0/7.0 |
| ASCII (CSV) | dBASE III/IV/V | Schedule+ 1.0/7.0 | Sidekick 2.0 for DOS | Wordperfect for Windows 6.0 |
| CaLANdar 2.55/3.11 | ECCO 1.x/2.x/3.x | Now Up-to-Date | Sidekick for Windows 1.0/2.0/95 | |

**IntelliLink for Windows - $99.95**

*"Using IntelliLink for file transfer between the Palmtop and desktop works like a charm."* **The HP Palmtop Paper,** Nov/Dec 1995

*"IntelliLink is the only solution for keeping network-based scheduling and contact information synchronized with your PDA."* **PC Week,** April 17,1995

**IntelliLink w/HP serial cable - $124.95**

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# Letters (Continued from page 5.)

### Troubles finding Random House Dictionary

Several times in The Palmtop Paper I have seen references to the Random House Webster's Electronic Dictionary and Thesaurus. You mention that you have placed it on a PC Card for use in your Palmtop. I am writing to see if you could suggest sources I might try to find this product.

I am currently using HP's Dictionary/Thesaurus Card (HP F1005A), but it is somewhat limited. I have called Random House, Novell, Word Perfect, and several software dealers. No one seems to have the Random House Webster's Electronic Dictionary and Thesaurus software nor do they know who has the license for it. Can you tell me where I might find this product?

*David A. St. Martin, MD*
*Easton, Maryland*

[*Unfortunately the Random House Webster's Electronic Dictionary and Thesaurus is no longer available. You might find it is in a discontinued software bin or from a mail order company that sells discontinued or surplus software.*

*There is a program called* ***Writer's Toolkit*** *available from Surplus Software while supplies last (price $12.99, phone: 800-753-7877, fax: 541-386-4227). This older DOS version comes with the American Heritage Electronic Dictionary, tested previously on the Palmtop, and six other DOS reference tools that have not been tested, but may work on the Palmtop — Paul.*]

### StereoShell better than Filer?

I am an avid user of StereoShell, a file manager application very similar to Filer, but more powerful. The main program file is 28K. An additional setup program is about 20K or so, but can be discarded after setup. I set StereoShell up to work in Application Manager, so when I close Filer (using PALCLF.ZIP), I free up 60K. I use StereoShell when I have to do file housekeeping. It works Great!

The program can be setup to unarchive files, browse, view text in archived files without extracting them (a cool feature), and so on, depending on the file's extension. Then, when you highlight a filename and press ENTER, a menu pops up displaying the things you can do with the file based on the extension — .ZIP, .ARC, etc. Text files can be viewed, printed, renamed, deleted, copied, and more. For executable files, you will first be asked if you want to run them or view them. And for the technically inclined, the program has one of the best HEX viewers out there.

Another feature allows you to sort your files in the same fashion as Filer — by extension, alphabetically, by date, size or disk order. Color can be added for desktop use.

The program is so complete it even has a Screen Saver built-in! And small — that was the major selling point for me. It doesn't take that much memory to run either. I've used it with only 125K available in a pinch.

It really is a great program, and shareware too!

*Douglas J. Bauer*
*CompuServe ID: [73474,2530]*

### Extend your Express Exchange warranty

[*The warranty information below applies to the U.S.A. For warranty information for other countries, contact an authorized HP representative in that country.*]

I just paid $283 to get my HP repaired via Express Exchange while out of warranty. You have to be a mind reader to know how to ask for the warranty service. Unlike HP's calculator warranties, where they send customers a notice prior to the warranty's expiration, HP doesn't send a notice to Palmtop owners. As I recall, there wasn't anything in the original package either. I'd appreciate your placing a warning somewhere in *The HP Palmtop Paper* that customers must initiate the request for an extended warranty. The new number for the HP Service Center is 916-785-1200. It's well worth the $85.

*Chris P. Martin*
*CompuServe ID: [71270,1565]*

### Will lithium batteries "fry" your Palmtop?

In the past you have written about using Eveready lithium AA batteries found in camera departments.. They were also recommended by ACE Technologies, which is where I purchased my 10MB Flash card. (Lithiums have a battery life 2-3 times longer than alkalines and take temperature extremes better than other batteries.) I used them for quite some time until my 200LX began to act crazy, frequently flashing on/off, on/off. I called HP and they recommended "off the record" that I stop using lithium batteries because they would violate my warranty, and probably "fry" my CPU. I've stopped using them and have not had any trouble with my 200LX ever since. But I do miss the power.

*msrlee@aol.com*

[*HP does not recommend using lithium batteries because of the uneven power drop-off at the end of the battery's life cycle. This means your Palmtop will show adequate voltage readings until very near the end of the battery's life, then suddenly drop to inadequate levels. If this happens at a time when you are not using your Palmtop, for example, over a weekend, you could lose your data. A third party product like BATTman from ACE lets you monitor different kinds of batteries including lithiums so you have an adequate warning time.*

*I checked with HP about lithiums "frying" your CPU. That is incorrect information and shouldn't have been given to you. Lithiums do not create a hardware problem, the problem is the uneven power drop-off rate described above. As to the flashing screen, without looking at your unit it's impossible to tell what the problem might be.*

*Many people successfully use lithium batteries, including the HP Palmtop Paper editorial staff. If you choose to use lithiums without battery monitoring software, make sure you back up often and change your batteries at the first warning from your Palmtop — Paul.*]


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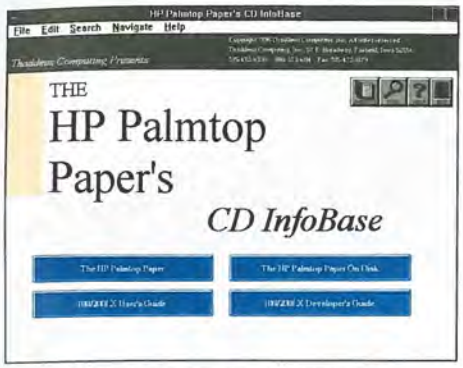


*The HP Palmtop Paper's CD InfoBase*

## The HP Palmtop Paper's CD InfoBase

***A MUST-HAVE FOR ALL PALMTOP USERS***

This PC Windows based CD contains in searchable hypertext format all 1991-95 *HP Palmtop Papers*, detailed product descriptions from advertisers, the HP 200LX User's Guide, and the HP 100/200LX Developer's Guide. In addition, you'll find the over 750 pieces of freeware and shareware from the 1991-95 On Disk collection, from the Subscriber Power Disks, and from the Developer's Guide.

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*Webster's Spell Checker*

## Webster's Spell Checker

**Spell check MEMO documents**

100,000 word dictionary lets you spell check MEMO and other text documents without leaving built-in applications. Takes about 200K of disk space and 200K of internal memory to run.

*HP 100/200LX Developer's Guide*

## HP 100/200LX Developer's Guide

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The Developer's Package includes everything you need to write software, design hardware, or simply understand the inner workings of the HP Palmtop.

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4) CompuServe starter kit (CompuServe's where Palmtop programmers hang out)
5) PAL: a C source code library for developing software with the look and feel of the HP Palmtop built-in applications

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continued from page 8

# ••• BASIC TIPS •••

## DataBase

### Extracting text from a Note field and using it in another application

*[Editor's note: Although the specific example given is for NoteTaker, the technique described works in the Notes field in Appointment Book, Phone and DataBase.]*

NoteTaker is a handy place to store all sorts of information. Open NoteTaker, press F2 to add a Note, and give it a brief title, and category. Then tab to the Note field (or press F3), type in a short or long note and press F10 when you're finished.

When you need that information in another application, there are a number of ways to easily extract it:

**1. Cut or copy and paste it to another application.**

a. Go to the desired note, select the desired text by holding down the Shift key and using the ArrowKeys to highlight it, and press Fn-- to cut, or Fn-= to copy it to the Palmtop's clipboard.

b. Move to another application and press Fn-+ to paste the selected text back in.

**2. Save the note as a text file.**

a. Highlight or select the desired NoteTaker record and press F3 to bring up the note field in full screen mode. The "Save As" option is now available at the bottom of the screen.

b. Press F2 and you are presented with the "Save As" dialog box shown below.

Give the note a name to save it as an ASCII text file that can be loaded into another program. This method only saves the note you have open. It does not save the information entered in the Title or Category fields of the NoteTaker item.

**3. Use the SmartClip to save multiple NoteTaker notes to a single file.**

CREATE THE SMART CLIP

a. Open NoteTaker and press F5 to open the Clip feature and press ALT-D to Define a new SmartClip.

b. Press F2 Field, select the **Title** field and press ENTER.

c. Press ENTER again to move the cursor down one space.

d. Press F2 again, select the **Notes** field and press ENTER.

e. Press F10 and Name your SmartClip.

PRINT SELECTED NOTES TO A FILE USING THE SMART CLIP

a. Open NoteTaker and tag the NoteTaker entries you want saved by moving the cursor to the entry and pressing SpaceBar.

b. Press MENU File Print to access the Print dialog box.

c. Use the Up or DownArrow to select **All Items** to print all the items in the NoteTaker file, or **Selected Items** to print the items you tagged.

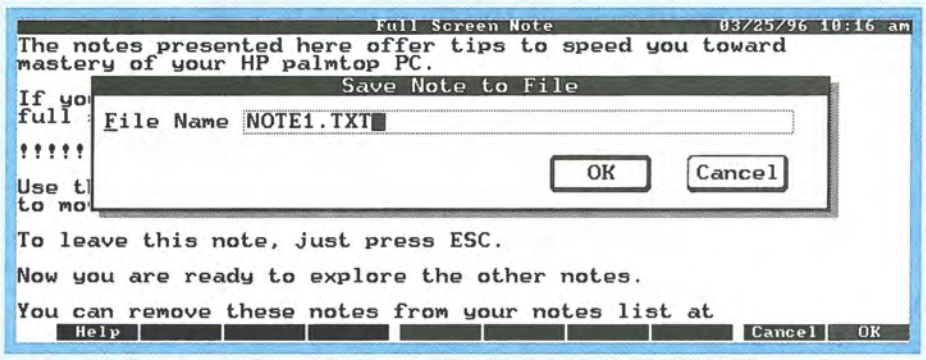
d. Press ALT-C to select Custom. Tab to the scroll box and use the arrow keys to highlight the name of your newly created SmartClip.

e. Press ALT-F to select the **File** option in the "Print to" box.

f. Press ENTER and you will be prompted to enter a file name. Enter the complete path and name of the file (e.g., C:_DAT\NOTETEKE.DOC) and press ENTER.

This procedure saves both the Title and Notes fields for the selected NoteTaker items into one text file. See the help function or the *HP 100/200LX User's Guide* for more on using SmartClip.

*Jud Hardcastle*
*Compuserve ID [71155,1761]*
*Tom Gibson*
*HP Palmtop Paper*
*tom_gibson@thaddeus.com*




Press (F2) from a Notes field to save the entire note field as an ASCII text file for use in a word processor or other application.

## MS-DOS

### Use F3 to repeat DOS commands without re-typing them

When you are at the DOS prompt on the HP Palmtop you can access a number of DOS commands. For example, you can type cls at a DOS prompt to clear the screen.

If you want to use that command again, you can re-enter it at the DOS prompt. However, DOS stores the last command entered in memory. Press F3 and the command is automatically re-enter at the DOS prompt.

You can also use the F1 and F2 keys to enter a part of the previous DOS command. For more on the F1, F2, and F3 keys, look up "Editing Keys" in an MS-DOS reference.

*Rich Hall*
*Editor, HP Palmtop Paper*
*Richard_Hall@Thaddeus.Com*

## Filer

### Delete the wrong file? Use the Filer undelete feature to get it back!

Everyone who has ever used a computer has deleted or erased a file only to

find out that they really did need that file. This is why almost all operating systems and utility packages have an undelete utility. DOS is no exception. The secret behind undelete utilities is that when you ask DOS to delete a file, all it does is change the first character of the file's name to a special character that indicates to DOS that the space the file is occupying is available for file storage. It does not write over or physically erase the data in the file. Until another file is written to the same space, the original data is still on your disk. Undelete utilities work by restoring the original directory listing. They won't work if DOS has already written a new file to the locations used by the deleted file(s).

During the Iran-Contra affair in the U.S., Col. Oliver North instructed his secretary to erase some incriminating files from her hard disk. She did, but neither she nor her boss knew that these deleted files could be recovered, which they were.

UNDELETING FILES

1. Open Filer and go to the directory list that contains the file or directory you want to recover.

2. Press [MENU] **F**ile **U**ndelete and you are presented with the File Undelete dialog box.

3. Specify whether you want to recover a File, Directory, or both. You can also use the DOS wildcards * or ? to narrow down the search. Leave *.* in the Undelete field and press [F10] and you are presented with a list of all the files that have been deleted from that directory (see screen below).

4. Highlight the desired file and press [ENTER] or [F10] to undelete it. You are presented with the following dialog box, asking you to replace the first character of the deleted file with a new letter. Do so and press [ENTER] or [F10].

If the recovery was successful, you'll get a message telling you so. If the Undelete feature could not recover the file for any reason, that message will be displayed.

*Chuck Christenson*
*Compuserve ID [76702,432]*
*Daniel Legendre*
*Compuserve ID [100572,3340]*

## HP CALC

### Use HP CALC "Automatic Constant" feature to figure discounts

Everyone loves a sale, but sometimes you may not be sure what the real cost is going to be until you get to the checkout counter. HP CALC's automatic constant feature is very helpful for those "store wide 35% off" sales.

Let's say you go into a store with a 35% off sale. What that means is that you will pay 65% of the original price (original price *.65 = discounted price). Use HP CALC to figure out the price of the first item (say its list price is 149.95).

Open HP CALC and press [CTRL]-[A] to go to the Arithmetic function. Key in **149.95** and press [*] [*] (the asterisks or multiplication key twice). Then enter **0.65** and press [=]. The result, 97.47, appears at the bottom right of the screen along with [*0.65] (see screen below).

HP CALC showing constant of 0.65 in square brackets on the bottom Calc line.

The trick here is that when you pressed [*] the second time, you told the Palmtop to use the next number as the automatic constant. The Palmtop automatically multiplies future entries by this number. All you have to do to calculate the discounted price of the next 35% off item is to key in the regular price and press [=]. To clear the constant, simply press [DEL].

*Tom Gibson*
*Tom_Gibson@Thaddeus.Com*

## Memo

### Deleting large blocks of text quickly

You can delete from the cursor position to the end of a document in Memo (or in any Note field) quickly and easily.

1. Move the cursor to the beginning of the block you want to delete and press [Shift]. Then hold down [CTRL] and [Fn] and press [RightArrow] to select the text to the end of the document or Note field. (Press [LeftArrow] if you want to delete to the top of the document or Note field.)

2. Then press [DEL] to delete the text. You can also press [Fn]-[.] to cut the text to the Palmtop's clipboard. If you use Cut instead of DEL, you can paste the text back by pressing [Fn]-[+].

*Joy Soto Kocar*
*Compuserve ID [73121,3467]*

## WorldTime

### Use the Custom option to show the cities you want in WorldTime

It is very easy to show a pre-selected group of cities in WorldTime. For example, let's say you travel to, or do business in five cities — your home city and four others.

Open WorldTime and scroll through the All Cities list until you get to one of the five. Let's say it's your home city. Press [ENTER] to edit the record. Press [ALT]-[L] to go to the "Custom List" box and check it. Then press [F10] to finish. Continue this process until you've checked all five cities. Then, from the main All Cities list, press [F9] (Custom). WorldTime displays only the records that have a checked "Custom List" box. This Custom list mode will stay there when you close and then re-open WorldTime. You are all set.

*Stan Dobrowski [TeamHP]*
*Compuserve ID [76711,2302]*

The File Undelete function displays a list of all the deleted files. Highlight the desired file and press [ENTER] or [F10] to undelete it.

# ▲▲▲ QUICK TIPS ▲▲▲

## AppointmentBook

### Repeat Appointments without Repeating Appointments

Many people set up a repeating appointment to run a System Macro that automatically backs up their data. To do this, they first create a System Macro to back up their data. Then they open Appointment Book, press F2 and in the Description field key in II (the shifted value of the backslash key twice) followed by the number of the macro. For example, to run Fn-F9 as an appointment, they would enter **II9** in the description field. Then they set the time, date, Location to Q to disable error messages, repeating status, enable Lead time and set it to 0, and press F10.

This works, but some users have reported that repeating appointments slow down opening the Appointment Book and also slow down searches. In addition, daily repeating appointments show up on every day, cluttering up the display and getting in the way of your real appointments.

One solution is to create a "self-replicating" macro and set it to run as an appointment on one day. Each time it runs it backs up your Palmtop and copies itself to the next day. Add the following System Macro code to your backup macro:

```
{Appt}{Menu}va{F5}{F4}
{Home}{F4}II9{Enter}{Enter}
{Alt+D}+{F10}{Menu}q
```

Here is the breakdown of what the macro code does:

{Appt}{Menu}va — Opens Appointment Book and sets the view to the appointment screen (i.e., makes sure you are not in the ToDo screen).

{F5}{F4} — Goes to today's date.

{HOME} — Goes to the top of days list.

{F4}II9{Enter} — Finds the macro appointment (the "9" refers to macro F9. Change this if your backup macro is set to another key).

{Enter}{Alt+D}+ — Open the backup appointment, go to the date field and increment by one day.

{F10}{Menu}q — Save change and quit the appointment.

*Gary Spiers*
*Compuserve ID:[74603,3001]*
*Andreas Garzotto*
*Compuserve ID:[73064,1657]*

## Datacomm

### Access Internet using the built-in connectivity software

You can dial the closest CompuServe node with the Palmtop's built-in Datacomm terminal program. Log on to CompuServe manually and use the FTP (File Transfer Protocol) service by typing **GO FTP**.to access You can also use the TELNET option by typing **GO TELNET**. This lets you connect in "real time" to other host computers on the net.

*Gilles Kohl [TeamHP]*
*CompuServe ID:[100114,3146]*

### Sending/receiving faxes from the HP Palmtop

SEND FAXES
USING COMPUSERVE:
Palmtop users who subscribe to the CompuServe Information Service can send and receive faxes on their HP Palmtop with the aid of a modem and CompuServe access software. Connect up to CompuServe and follow the procedures for sending e-mail. Instead of sending it to a User ID, use a valid fax number in place of the e-mail address in the format Fax: <phone number>. For example, if you wanted to send a fax to Thaddeus Computing you would use the address: **Fax:15154721879.** You are asked to enter the name of the person the fax is going to and told the cost of the transmission.

There are two CompuServe access programs I know of: Tapcis and acCIS.

**TAPCIS** — some folks use an older Version of Tapcis (5.4x). I never had Tapcis running on my Palmtop so I can't comment on it.

**acCIS** — this is SystemManager compliant communications application, which means it acts just like one of the Palmtop's built-in applications. (I am one of the author's of acCIS.)

SEND/RECEIVE FAXES
USING MODEMS AND
FAX SOFTWARE
There are a number of different options I know of here:

**ACE-FAX**, available from ACE Technologies, can be purchased separately ($29) or in combination with a PC Card or Pocket modem. If you consider Ace-Fax and you already have a modem, be sure to check with ACE to see whether yours is on the list of modems that work with ACE-FAX.

**EXP** offers 3 versions of its ThinFax PC Card modems with excellent FAX software burned into the Card's ROM. One is a modem only and the two others come with on-board flash RAM (2MB, 4MB, & 8MB). In all cases the modem is capable of real 14,400 baud connections. I use their modem with 4MB flash on board and I've been a happy camper ever since. acCIS can be purchased pre-loaded on a EXP modem/memory card.

**The Smart Card** by Apex Data is another PC Card Modem with on-board flash RAM memory (2MB, 4MB, & 6MB). The Apex Smart Card also comes with a fax software.

All the programs above will fit onto a 2MB Palmtop C drive, though in the long run you may want to invest in a memory card to store your data.

*Ernst W. Abresch*
*CompuServe ID:[100031,751]*

*[**SSFaxer** is another fax software program available for HP Palmtops. It lets you send, receive, view and print faxes from the Palmtop. It comes with a DOS command line version and a menu-driven version that runs from the AppManager. It can be used with external or PC Card modems. — Rich.]*

## Memo

### Transfer Files Between Memo and Word for Windows and Back

Many users of HP Palmtops have Microsoft Windows on their desktop PC's and want to transfer files back and forth without losing any formatting. DOCRTF.ZIP is a utility in HPHAND library 11 that will convert a formatted Memo document to a format that can be used by Microsoft

Word for Windows. It converts from Memo format (bold, underline, etc.) to RTF (rich text) and back. Then just open/save the file in Word for Windows as an .RTF file. You can use DOCRTF.EXE directly from the DOS prompt on either the PC or the Palmtop.

To convert a Memo format file to an RTF format file, type the following at a DOS prompt: **docrtf /d filename .doc** filename.rtf where FILENAME.DOC is the existing Memo-format file and FILENAME.RTF is the name for the rich text format file.

To convert an RTF format file to a Memo-format file, use the following command line option: **docrtf /r filename.rtf filename.doc** .

The program is "cardware" (not shareware or freeware). This means that all you have to do to register it is to send the author a picture postcard of your hometown.

*Jud Hardcastle*
*Compuserve ID: [71155,1761]*
*Tom Gibson*
*Tom_Gibson@Thaddeus.Com*

## Misc.

### Using EMM200 with Stacker

On the HP Palmtops, there is a limited amount of memory available to both run programs and save or store files. One way to increase the memory available for storage is to get a PC memory card and insert it in your Palmtop. Memory cards are relatively expensive. To increase the amount of storage space on such a card, many PC cards sold today have a file compression utility called Stacker pre-loaded on them. Stacker lets a 10 megabyte Flashcard store about as much data as a 20 megabyte card not using Stacker. While this is good, Stacker has to use some of the precious system RAM to operate, cutting into a very precious resource.

EMM200.ZIP is a utility that simulates expanded memory on the HP Palmtop. The following is a description of how I used EMM200.ZIP to cut down the amount of RAM used by Stacker. I have a 2MB 100LX with the system RAM set to the maximum of 626K and a 10MB DoubleFlash card from ACE with Stacker 3.0 compression. My C drive is not Stacked. The end result of using EMM200 was that I gave up 64K on my C drive and gained 16K more of system RAM. The trade may not be worth it on a 1MB machine. This process should work the same for a 200LX.

1. BACK UP YOUR C: DRIVE!

2. Download EMM200.ZIP, unzip the files and read the English .DOC file (EMM200 is a Japanese program).

3. Close all applications and open the AppManager. If you are in the Icons view, press (F8) to switch to the List view and look at the bar on top of the screen to see how much free memory you have (write down these numbers).

4. Move EMM200.EXE and MAKEEMS.EXE to your C drive.

5. From the DOS prompt Type makeems.exe 4 (the 4 sets aside 64K on your C: drive). Answer yes to the question in Japanese. This created EMM200.DAT on my C drive. (If this fails, it probably means that you don't have enough contiguous space on your C drive. Copy as many files as you can off your C drive (to your Stacked A: drive) and run makeems again.

6. Reboot your Palmtop without loading Stacker (press ALT during boot and choose **3** from the menu). This allows you to edit your A drive's CONFIG.ZIP file. Load CONFIG.SYS into Memo and add **device=a:\emm200.exe c:\emm200.dat** in front of your other device drivers. My complete CONFIG.SYS file looks like this:

```
device=a:\emm200.exe c:\emm200.dat
device=a:\acedrv.sys
device=a:\stacker.com /p=9 a: /EMS
shell=d:\dos\command.com /p
files=30
buffers=5
stacks=9,256
lastdrive=e
```

The first line activates EMM200 and tells it the file to use (this is the file you created with makeems.exe).

*Dara Khoyi*
*Compuserve ID: [74147,242]*

### Reformat clusters on flashcards to add file storage space

1KCLUS 1.0 is a 1k cluster disk reformatter that will reformat a flashcard to use 1K clusters. Normally, the 100/200LX will format a flashcard with 4K (4096 bytes) clusters. Let's say you save a small file that occupies 120 bytes. The minimum storage unit on the flashcard is one cluster. One file always occupies at least one cluster, and always a whole number of clusters. If your flashcard is using 4K clusters, the 120-byte file is really occupying 4096 bytes — there are 3976 empty bytes in the cluster that are wasted. If you use 1K clusters on your flashcard, the amount of slack would be only 904 bytes, saving you 3072 bytes.

1KCLUS.ZIP is not for use with Stacker or other "automatic" file compression programs, as they ignore cluster boundaries anyway. It is intended for those who require the faster file access of an uncompressed disk, but want some additional file storage capacity.

Some people have reported using the DIET file compression program on a flashcard formatted with 1KCLUS and receiving as much as 50% compression.

To use 1KCLUS on a flashcard, unzip 1KCLUS.ZIP and follow the simple directions in the 1K_CLUS.DOC documentation file. Be sure to first backup all files on drive a as this program will destroy all data on your flashcard and you will have to restore your data at completion.

*Fred Kaufman [TeamHP]*
*Compuserve ID: [75162,2616]*

### Light-up your HP Palmtop screen

*[Editor's note: Viewing the HP Palmtop's screen is not always easy in poor lighting. Palmtop users recently discussed solutions to the problem on CompuServe's HP Hand forum.]*

#### *Minimalist Headlamp*

I have seen a sort of minimalist headlamp setup at Wal-Mart and some camping stores. It's a 3/4" nylon web strap with a "tunnel" loop sewn on and velcro fasteners for adjusting the size for your head. You slide a small penlight flashlight into the loop and the put the thing on your head. It's better than trying to stick the penlight behind your ear.

*Ron Vieceli*
*CompuServe ID: [73310,3663]*

#### *Over-the-head strap headlamp*

Petzl Micro (product # HH914, $28.00) makes an over-the-head strap headlamp that works with two AA batteries and comes with a spare bulb. I saw it in an L.L. Bean catalog (L.L. Bean, Freeport, Maine, phone: 207-865-3111, fax: 207-878-2104).

*Daniel Legendre*
*CompuServe ID: [100572,3340]*

### *Small battery-powered swivel lamp*

I have been using a small (1.5" x 4-5") florescent lamp that runs on 2 AA batteries. The brand name is ZELCO, and I purchased it at a Brookstone store at a local mall. I think it was about $25.00. Anyway the light swivels away from the case that holds the batteries and the switch. The swivel is a full 360 degrees so you can set the base w/ batteries on a table, or in my case on the flap in the leather desktop pouch I carry the Palmtop in. The light swiveles out and illuminates the screen and keyboard rather nicely. I've used this in the car, on a plane, at home when the power is out, it seems to work great. It is not too bright, as to be annoying, but does put out enough to see well.

*Ronald L. Black*
*CompuServe ID:[75753,2166]*

### *Palmtop Computer Light*

I found a light made for PDA's. The base sits under the keyboard, and the light comes up over the back and is flexible enough to move around to the best orientation. The light is roughly the same length and thickness as the HP, but is only about 1.25" wide. It uses an ekton bulb and the system comes with a red light - presumably for use on airplanes at night or when one doesn't wish to bother one's sleeping spouse or significant other.

The PCL-300 (Palmtop Computer Light) retails for $29.95. The package comes with a main lighting unit, 5 Ektron bulbs (3 clear & 2 red), a clip with velcro, carrying case, DC converter with dimmer switch. Contact: ASF Associates, Ltd., Box 625, Merrick, NY 11566, USA; Phone: 800-936-3638; Fax: 516-868-6897; E-mail: ASF1 @EWORLD.COM.

*Jini Scammell-Tinling*
*CompuServe ID:[73240,1310]*

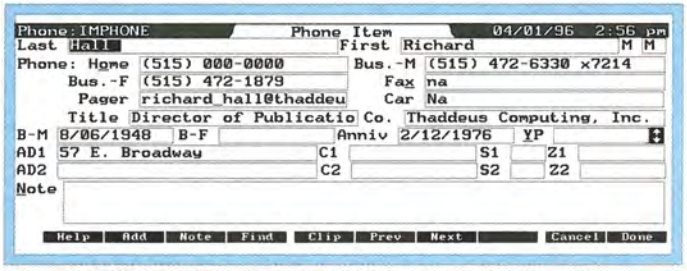
## PhoneBook

### Improved Phone Book Template

IMPHONE.PDB is a modified 100/200LX PhoneBook templet that improves the HP PhoneBook and makes it more compatible for converting the PhoneBook into popular PIMs formats. In order to have more room for information I abbreviated some of the fields. (E.G., BUS.-M = Business Phone, individual is a man, B-M=Birthday, individual is a man, YP=Yellow Pages which is a category field listing type of contact the item is (Business, Friend, etc.). The PhoneBook data entry screen is shown at the bottom of this page.

The Notes field can be made less tall to allow for one more row of information to be added.

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




IMPHONE.PDB is a modified PhoneBook file with author improvements in the format. The C1, C2, S1, S2, Z1 and Z2 fields can be used as needed for data of your choice.

## WorldTime

### New European Daylight Savings Time

Starting in 1996, most of Europe will change to the summer hour (daylight savings time) the last weekend of March, and change back to the winter hour (standard time) the last weekend of October. The U.K. did this already, but prior to this year, most of the rest of Europe changed back to the winter hour the last weekend of September. The 100/200LXs are set up to show the whole of Europe changing in September. So, prior to now, U.K. cities showed the wrong time in October, and as of now, all of the European cities will show the wrong time in October.

However, there is a simple solution, thanks to the foresight of the developer. Put a new TIMEZONE.DAT in C:_DAT. It is a pure ASCII text file and should contain the following lines:

European
3:25-31 6 1:00
10:25-31 6 0:00
Northern
4:1-7 6 1:00
10:25-31 6 0:00
Southern
3:1-7 6 0:00
10:25-31 6 1:00

1. Open Memo, press [MENU] File Open, type in the following: **d:_sys\timezone.dat** and press [ENTER].

2. Edit the text in this file to match the preceding text (double check to make sure you got it correct). When you're done making your changes, press [MENU] File SaveAs, key in **C:_DAT\TIMEZONE.DAT** and press [F10] to save this file in the new location C:_DAT. (You can not this file save the file in it's original location (D:_DAT) because the D directory is ROM (read only memory). WorldTime first looks to C:_DAT for TIMEZONE.DAT. If it can't find it there, it defaults to the version in D:_SYS.

The original TIMEZONE .DAT file has three entries, but you can add more entries in this file to take into account any local differences to the timezones. You cannot use the same initial letter for the timezone name (i.e., since you already have a "European" you cannot add a "East European"). This limitation allows up to 26 different timezones. In addition, you must follow the format shown in the example below:

European
3:25-31 6 1:00
10:25-31 6 0:00

Understand this format as follows:

Line 1: European = (name of timezone);

Line 2: 3:25-31 (month and date range to take effect) ; 6 (day of the week to take effect); 1:00 (start daylight savings)

Line 3: 10:25-31 (month and date range to take effect) 6 (day of the week) 0:00 (start standard time)

If you add any new timezones, you will have to go to WorldTime and edit each of the cities in that new timezone. Start WorldTime, highlight the city you want to edit, and press [ENTER] to go to the individual city data screen. Press [ALT]-[M] to choose Automatic Daylight Savings and press [ENTER] once to go to the choice box. Use the Down or UpArrow keys to scroll through the list and highlight the correct timezone. Press [F10] to save your selection.

*Frank Louwers (Belgium)*
*Compuserve ID:[72361,2161]*

**Product Index: page 51**
**Share/Freeware Index: page 52**

# 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 (i.e. the same place you can purchase an HP LaserJet). 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 or 408-734-0100; Fax: 408-734-3344; ***EduCALC*** at 800-677-7001; Fax: 714-582-1445. ***Global Connections*** at 800-709-9494 or 608-752-1537; Fax: 608-752-9548.

**HP OMNIGO 100 — $349**
(HP F131OA)

**HP OMNIGO ACCESSORIES:**

**CONNECTIVITY PACK — $99.95**
(HP F1311A) Comes with cable.

**CLIP & GO — $64.95**
(HP F1312A)
Optional PC Connectivity Cable — $24.95

**STRATEGY GAMES — $49.95**
(HP F1313A)
Optional PC Connectivity Cable — $24.95

**ACCESSORY PENS — $9.99**
(HP F1314A) Includes three pens.

**HP 200LX 2MB — $679**
(HP F1061A)

**HP 200LX 1MB — $499**
(HP F1060A)

**HP 1000CX Palmtop PC — $399**
(HP F1203A)

**HP OmniGo 700LX**
Combination HP 200LX, fax software and Nokia GSM cellular phone. (See page 9)

**HP StarLink Service — $Varies**
Wireless messaging service, for "one-stop communications solution." Contact: 800-917-LINK.

**1.8MB/12v Flash Card — $199**
(HP F1024A))

**5MB/12v Flash Card — $365**
(HP F1012A) with Stacker 3.0 data compression software (not for the 95LX).

**10MB/12V Flash Card — $579**
(HP F1013A) with Stacker 3.0 data compression software (not for the 95LX).

**Dictionary/Thesaurus Card—$129.95**
(HP F1005A)

**AC/DC Adapter (HP F1011A)—$34.95**
USA/Canada (Opt. ABA)
Europe (Opt. ABB)
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 95LX and 100/200LX to Apple PCs/MACs.

**100/200LX Connectivity Pack — $109.95**
(HP F1021B)
(HP F1021C) International

**Connect/Adapter Kit — $24.95**
(HP F1023A) 4 adapters for connecting the 100/200LX to modems, printers, and PCs.

**Service Agreements**
For U.S. HP Palmtop users. Units must be under warranty to extend.
100/200LX, 2-year extension — $85
Contact: *HP, Corvallis Service Center, USA; Phone: 503-757-2002.*

**NOTE:** Prices listed are suggested retail price. Dealer prices may vary.

## OTHER PRODUCTS

**ABC/LX — $34.95**
Automatic battery charging and monitoring software. (See page 10)
Contact: *Shier Systems & Software, USA; Phone: 805-371-9391; Fax: 805-371-9454; CompuServe: [74777,2477]; WW Web: http://www.shier.com*

**Access for Windows Ver.2.0 or Windows 95 — $339**
Database program. (See page 33)
Contact: *Microsoft Corporation, USA; Phone: 800-426-9400, Canada: 800-563-9048, International: 206-936-8661; Fax: 206-635-6100.*

**acCIS 3.1 — $79**
**On EXP modem/-memory card — $Varies**
Automates CompuServe access, no additional software required. (See page48)
Contact: *Shier Systems & Software, USA; Phone: 805-371-9391; Fax: 805-371-9454; CompuServe: [74777,2477]; WW Web: http://www.shier.com*

**ACE DoubleCards and DoubleFlash+ Cards — $Varies**
PC Flash memory data storage cards (See page 30)
Contact: *ACE Technologies, Inc., USA; Phone: 800-825-9977 or 408-734-0100; Fax: 408-734-3344.*

**ACE-Fax — $29**
Fax and communications software. (See page 48)
Contact: *ACE Technologies, Inc., USA; Phone: 800-825-9977 or 408-734-0100; Fax: 408-734-3344.*

**ACT! Ver.HP1.1 — $129**
Contact management software. (See page 30)
Contact: *Symantec, USA; Phone: 800-441-7234 or 408-253-9600; Fax: 541-334-7400.*

**America On Line (AOL) — $Varies**
Online information service. (See page 23)
Contact: *America Online, USA; Phone: 800-827-6364 or 703-448-8700.*

**ClarisWorks Mac or Windows — $129**
Includes variety of office applications (word-processor, spreadsheet, etc.). (See page 30)
Contact: *Claris, USA; Phone: 800-544-8554 or 408-987-7000; Fax: 408987-3932.*

**CompuServe — $Varies**
Online information service. (Page 24, 30, 48)
Contact: *CompuServe, USA; Phone: 800-848-8199, International: 614-529-9463; Fax: 614-529-9463.*

**dBase III — $695**
**dBase IV Ver.2.0 — $795**
Database programs. (See page 34)
Contact: *Borland International, USA; Phone: 800-331-0877 or 510-354-3828; Fax: 408-431-4358.*

**HP OmniGo World — $39**
Support magazine for users of the HP OmniGo 100 Organizer.

**HP Palmtop Paper, Back Issues**
Contact: *Thaddeus Computing, USA; Phone: 800-373-6114 or 515-472-6330; Fax: 515-472-1879; E-mail: orders@thaddeus.com*

**HP Palmtop Developer's Guide — $79**
Kit to assist developers of HP 100/200LX Palmtop hardware and software products.
Contact: *Thaddeus Computing, USA; Phone: 800-373-6114 or 515-472-6330; Fax: 515-472-1879.*

**HyperWriter! DOS or Windows — $Varies**
A hypertext multimedia authoring program. (See page 19-21)
Contact: *Ntergaid, USA; Phone: 254-9737 or 203-783-1280; Fax: 203-882-0850; E-mail: sales@ntergaid.com*

**Lotus Organizer — $99**
Personal information manager. (See page 30)
Contact: *Lotus Development Corporation, USA; Phone: 800-343-5414 or 617-577-8500; Fax: 617-693-3899.*

**Megahertz 14.4 Fax/ Modem Card (XJ1144) — $115**
Fax/modem PC Card works in 100/200LX. (See page 23)
Contact: *Megahertz Corporation, USA; Phone: 800-527-8677 or 801-320-7000; Fax: 801-320-6022.*

**Organizer Extras Catalog — $7.95**
Catalog of products for the HP OmniGo 100 Organizer.
Contact: *Thaddeus Computing, USA; Phone: 800-373-6114 or 515-472-6330; Fax: 515-472-1879; E-mail: Internet: orders@thaddeus.com.*

**Paradox Ver.4.5 — $795**
Database software. (See page 33)
Contact: *Borland International, USA; Phone: 800-331-0877 or 510-354-3828; Fax: 800-408-0001.*

**Pocket Quicken — $69.95**
Stand-alone version of Pocket Quicken for 100LX users. (See page 29)
Contact: *Intuit, USA; Phone: 800-354-4023, International: 520-295-3200; Fax: 603-295-3015.*

**Smart Modem Fax/Modem/Flash Memory PC Card — $Varies**
PC fax/modem card with 2MB, 4MB, or 6MB of on-board Flash memory. (See page 48)
Contact: *Apex Data (formerly Smart Modular), USA ; Phone: 800-841-2739 or 510-416-5656; Fax: 510-416-0909.*

**Software Carousel — $89.95**
Task Switching Program. (See page 16, 18)
Contact: *Sunshine Software Company, USA; Phone: 800-553-0400 or 305-581-2200; Fax: 305-581-5902.*

**SSFaxer — $29.95**
Faxing software for 100/200LX. (See page 48)
Contact: *Simple Simon Software, P.O. Box 926, Bedford, TX. 76095, USA; Phone: 817-283-6691; Fax: 817-283-5871.*

**ThinFax Fax/Modem/Storage PC Card — $Varies**
14.4 bps fax/modem/storage PC Card with onboard Flash memory. (See page 48)
Contact: *EXP, USA; Phone: 800-397-6922, ext.641 or 714-453-1020; Fax: 714-453-1319.*

**Users Groups for the HP Palmtop**
(See page 6)

**Windows 95 — $209**
**Windows Ver.3.1 — $109**
Operating System. (See page 17)
Contact: *Microsoft Corporation, USA; Phone: 800-426-9400, Canada: 800-563-9048, International: 206-936-8661; Fax: 206-635-6100.*

## HOW TO CONTACT US

*[Please note: The HP Palmtop Paper does not and cannot provide technical support.]*

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 or Internet e-mail, fax, or call. Our mailing address and contact information is:


**Thaddeus Computing, Inc.,**
**57 E. Broadway**
**Fairfield, IA 52556, U.S.A.**
**Phone: 515-472-6330**
**or 800-373-6114**
**Fax #:515-472-1879**
**Internet: letters@thaddeus.com**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**HP Technical Support** — HP offers these options:

❑ FREE TECHNICAL SUPPORT — 8:00am. - 5:00pm. P.S.T. Phone: 541-757-2004; Fax 541-715-5488. Or write: HP Mobile Computing Customer Support at: 1000 N.E. Circle Blvd., Corvallis, OR 97330, USA.

❑ FREE AUTOMATED SUPPORT — offered 24 hours a day, seven days a week. Phone: 800-443-1254. (No operator is available.)

**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 800-827-6364 or 703-893-6288 for membership information.

❑ INTERNET: comp.sys.palmtops; or comp.sys.handhelds

### 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: hal_goldstein@thaddeus.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 — please include your phone number. 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 at any particular time.

If you can, especially if you write a Palmtop Profile, send us a photo of yourself — black and white is preferred, but color is acceptable.

## Products advertised in this issue of The HP Palmtop Paper


| COMPANY | (PRODUCT) ..... [PHONE/FAX NUMBERS]..PAGE NUMBER |
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| Accurite | (Floppy Drives for 100/200LX)..... [408-433-1980; Fax: 408-433-1716]..42 |
| ACE | (ACE) ..... [800-825-9977 or 408-734-0100; Fax: 408-734-3344]..center fold |
| | (Palmtop/Omnibook Products includes: ACT! for HP Palmtops; ACE<—>FAX Fax Software and Modem Bundles; ACE <—>LINK File Transfer Software; BATTman Battery Monitoring and Data Protection Software; Carrying Cases; Desktop Card Readers; Acoustic Modem Couplers; HP 200LX Palmtop Systems; HP Color OmniBook Software; NiMH Batteries; Printers and Accessories; X-JACK Megahertz Modem Bundles, SkyTel 2-Way Paging.) |
| | (DoubleFlash Plus PC Memory Cards, HP 200LX 5MB RAM Upgrade) ..... back cover |
| ASF | (Palmtop Computer Light) ..... [800-771-3600 or 800-936-3638; Fax: 516-868-6897]..20 |
| Aware Electronics | (Gieger Counter) ..... [800-729-5397; Phone/Fax: 302-655-3800]..37 |
| ConectUS Wireless Comm | (Wireless Messaging) ..... (800-350-0373)..38 |
| Creative Digital | (PDA Developers Journal)..... [415-621-4252; Fax: 415-621-4922]..28 |
| Data Critical | (Critical Link)..... [206-885-3500; Fax: 206-885-3377]..29 |
| DataViz | (MacLink Plus) ..... [800-406-6504 or 203-268-0030; Fax: 203-268-4345]..39 |
| DTS Wireless Messaging | (Wireless Messaging Service) ..... [800-967-0943 or 908-602-1144; Fax: 908-602-0990]..12 |
| E & B | (Leather Cases)..... [800-896-2273; Intl: 916-344-5047; Fax: 916-782-9306]..15 |
| EduCALC | (HP 200LX Palmtop Upgrade Offer)..... [800-385-9376]..31 |
| Envoy Data | (PC Cards, PC Card Products) ..... [800-368-6971 or 602-892-0954; Fax: 602-892-0029]..39 |
| EXP Computer | (ThinFax Modem) ..... [800-EXP-6922 ext. 641 or 714-453-1020; Fax: 714-453-1319]..inside front cover |
| GeoPro Development | (Palmtop Clipboard)..... [910-545-9797; Fax: 910-545-9783]..35 |
| Hewlett-Packard | (Connectivity, Flashcards, AC-DC Adapter) ..... [800-443-1254 or contact nearest HP dealer]..25 |
| Inmax | (CGA VGA Graphics Pack Vision) ..... [604-980-9991; Fax: 604-985-5597]..42 |
| IntelliLink | (Windows Connectivity Pack)..... [603-888-0666; Fax: 603-888-9817]..43 |
| Intuit | (Quicken Connect)..... [415-944-6000; Fax: 415-462-2955]..11 |
| MagicRAM | (Flash Card/Hard Drive/Card Drive) ..... (800-272-6242 or 213-413-9999; Fax: 213-413-0828)...5 |
| Mirical Corp. | (Personal Food Analyst) ..... [800-732-7707; Fax: 719-598-5790]..21 |
| Notable Technologies | (AirNote Wireless Messaging System) ..... (800-732-9900)..41 |
| Notebook Supply Warehouse | (Mobile Computing Products)..... [800-566-6832 or 714-753-8810; Fax: 714-753-8812]..19 |
| | (Carrying Cases) ..... 40 |
| | (HP 200LX 5MB RAM Upgrade) ..... 4 |
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| Parallax | (Litelink Infrared Connectivity Pack)..... 800-677-7001 or 714-582-2637; Fax: 714-582-1445]..30 |
| The Pouch | (Protective Carrying Cases)..... (800-727-6824)..24 |
| RadioMail | (Wireless Messaging Service)..... [800-597-6245 dept. NT3]..inside back cover |
| Shier Systems | (CompuServe Access Software, other Palmtop accessories)..... [805-371-9391; Fax: 805-371-9454]...3 |
| Steele Creek Technologies | (CardLink Drives) ..... [Phone/Fax: 704-588-1780]..20 |
| Sunshine Software | (Software Carousel.Task Switching Software)..... [800-553-0400 or 305-581-2200; Fax: 305-581-5902]..33 |
| Thaddeus Computing | (Subscriptions: HP Palmtop Paper, HP Palmtop Paper ONDISK |
| | HP OmniGo World) ..... [800-373-6114 or 515-472-6330; Fax: 515-472-1879].. 8 |
| | (Knowledge products: HP Palmtop Tech Ref. Manual, Lotus/DOS Reference Books, HP PTP's CD InfoBase)..... 45 |
| Thus, Inc. | (LX100, LX200, 41 Series) ..... [610-588-2600; Fax: 610-588-1727]..44 |
| Times2 Tech | (HP 200LX 5MB RAM Upgrade) ..... (Phone/Fax: 205-620-1408)..17 |


## Shareware and Freeware Index (March/April 1996)
## Software on The HP Palmtop Paper ON DISK or CompuServe

| PRODUCT | FUNCTION | CIS FORUM / LIBRARY | TYPE | PAGE |
|---|---|---|---|---|
| ADVERT.ZIP | Text: Descriptions & products advertised this issue. | NA | NA | NA |
| ABCDEMO.ZIP | Utility: ABC/LX demo, auto battery charging 100/200LX. | HPHAND, 14 | Free | 10 |
| ALLERGY.ZIP | Lotus template from Palmtop Wisdom. | HPHAND, 11 | Free | 2 |
| DBCALC.ZIP | Utility: Database calculator utility. | HPHAND, 11 | Free | 10 |
| DBFEAT.ZIP | Text: Undocumented Database features. | HPHAND, 11 | Free | 35 |
| DOCRTF.ZIP | Utility: Converts Memo file to MS Word/Windows format. | HPHAND, 11 | Share | 40 |
| FIXNOTE.ZIP | Utility: Replaces NoteTaker printer config. dialog. | HPHAND, 11 | Free | 11 |
| HISWORD.ZIP | Text: HisWord Palmtop Bible program. | HPHAND, 11 | Free | 12 |
| ICNSAVER.ZIP | Utility: Retrieves deleted .ICN files. | HPHAND, 11 | Free | 13 |
| IMPHONE.PDB | Database: Modified 100/200LX PhoneBook template. | HPHAND, 11 | Free | 50 |
| LOTUS26.ZIP | Lotus Template: Spreadsheet from Lotus 1-2-3 article. | HPHAND, 11 | Free | 36-43 |
| LXB.ZIP | Utility: Batch file enhancer. | HPHAND, 11 | Free | 13 |
| PALDRAW.ZIP | Application: Draw/CAD application for 100/200LX. | HPHAND, 11 | Share | 13 |
| PFE.ZIP | Font editor: PAL font editor. | HPHAND, 11 | Free | 13 |
| PLAYLIST.ZIP | Utility: File manager for .SND music files. | HPHAND, 11 | Free | 13 |
| PNR.ZIP | Application: Internet newsgroup reader for Palmtop. | Internet * | Free | 13 |
| PRODUCTS.ZIP | Database: Contents of PTP New Products sections. | HPHAND, 11 | Free | 33, 34 |
| PROLOG.ZIP | Programming: Demo version 16-bit Prolog compiler. | HPHAND, 15 | Free | 9 |
| PTP26.ZIP | Text: The HP Palmtop Paper, Mar/April 1996. | NA | NA | NA |
| PTPDSK26.ZIP | Database: PTP OnDisk Index in 100/200LX format. | NA | NA | NA |
| README.ZIP | Text: Cover letter for HP Palmtop Paper OnDisk. | NA | NA | NA |
| STS410.ZIP | Application: File manager. | PCUTIL, 6 | Share | 44 |
| UNZIP.EXE | Utility: Decompresses .ZIP files. | HPHAND, 1 | Free | NA |

* Internet: ftp://eddie.mit.edu/pub/hp95lx/NEW/pnrv10.zip

## Software mentioned and included in past issues of The HP Palmtop Paper ON DISK, The Subscriber's PowerDisks or CompuServe's HPHAND Forum

1KCLUS.ZIP, (Best Tips 96) Utility: Saves space, reformats Flashcard in 1K clusters. (HPHAND, 11) Free, 49. ADBMON.ZIP, (Jul/Aug 96) Utility: Moon phase data in APPT format for 100/200LX. (HPHAND, 11) Free, 10. BUDDY.ZIP (BestTips 94) Utility: Fixes problems, adds useful functions to 100/200LX. (HPHAND, 7) Shareware, 18. DBIO.ZIP, (Best Tips 96) Utility: Provides GUI for DBUTIL and ADBIO. (HPHAND, 11) Free, 11. DIET145F.ZIP (PwrDsk 94/95) Utility: New version 1.45F of file compression utility. (HPHAND, 1) Free, 49. EMM200.ZIP, (Best Tips 96) Utility: Allows some programs to use expanded memory. (HPHAND, 11) Free, 16, 49. FCL.ZIP, (Best Tips 96) Utility: Font editor to change built-in fonts. (HPHAND, 11) Share, 13. HDM.ZIP, (Best Tips 96) Utility: DOS menu system, looks/acts like AppManager. (HPHAND, 11) Free, 12, 18. HV.ZIP, (Best Tips 96) Utility: Hypertext viewer for W.W. Web's HTML format. (HPHAND, 11) Free, 12. KERMIT.ZIP, (BestTips 96) Application: MAC terminal emulation & file transfer program. (MACCOM, 4) Free, 30. LXBATCH (LXB100 on the 95-96 PowerDisk, LXB.ZIP in HPHAND, 11) Utility: Batch file enhancer, Free, 13. PAL.ZIP, (July/Aug 95) Programming: Collection of C language functions. (HPHAND, 15) Free, 16. PALCLF.ZIP (BestTips 96) Utility, Closes Filer, save System Ram. Free, 44. TAPCIS, (BestTips 94) Application: CompuServe access program for DOS. (TAPCIS, 1) Share, 48. VR100.ZIP, (Best Tips 96) Application: Vertical text reader. (HPHAND, 11) Share, 13.


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