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THE HP Palmtop Paper

X-Finder

*Taking Filer and
Application Manager
to the Next Level!*



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HOPE
for a 200LX
SOLUTION

ARE THEY READY YET?

Hewlett-Packard's **NEW**
Windows CE
Jornadas

*What Does
Hal think?*



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Editor's Message



Lost and Found

How many of you have used CompuServe's software to access the HPHAND forum? How many of you have lost HPHAND when you installed version 4.0.x? How many emails have you sent to CompuServe only to be told that "the HPHAND forum is no longer on Compuserve"? How many of you, like me, have shouted "Nonsense!" at such a display of culpable ignorance?

In this issue you won't find such culpable ignorance about the HP Palmtop. Rather Steve Grotheer shows how to turn your Palmtop into a real PC Companion using Windows 3.1 or Windows NT 4.0 along with the latest versions of Kermit. Peniel Romanelli shows how the updated X-Finder program can make your Palmtop look and feel like Windows Explorer (File Manager). Dave Sargeant sheds some light on the problems of creating a backlight for the Palmtop. In the "Through the Looking Glass" column I discuss several of the hurdles that must be overcome to make Windows 3.0 work on the Palmtop. I could have asked the question "In a world without walls and fences, who needs windows or gates!" In the New Products column you'll discover that there is now a good use for the cc:Mail Remote on your Palmtop. Finally, Hal Goldstein ponders what might happen if or when HP stops producing the Palmtop. His recent experiences with the new crop of Win CE handhelds show that the Jornada series are attractively packaged downgrades for Palmtop users.

Finally, here's a way to find the "Lost" HPHAND forum on Compuserve. Start CompuServe 4.0.x in offline mode, click on the Assistance tab, and click the "Member Center" icon. Select the "View..." item from the menu and choose "Classic View". HPHAND will now be accessible. An even easier approach is to use your favorite Web browser and type in the URL <http://forumsb.compuserve.com/vlforums/default.asp?SRV=HPHand> and connect to HPHAND. You won't even need WinCIM! This interesting "back door" into HPHAND is from Mike Rafeld, a forum member.

Ed Keefe

The HP Palmtop Paper

Increasing Your Personal
Power By Expanding Your
Palmtop's Potential

Volume 8/Issue 4
July/August 1999

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The HP Palmtop Paper (ISSN 10656189) is published by Thaddeus Computing Inc., at 110 North Court Street, Fairfield, IA 52556. Periodical postage paid at Fairfield, Iowa. Subscription rates payable in U.S. dollars, checks drawn on a U.S. bank, or by credit card — one year: \$39; two years: \$69. Postage: U.S. and U.S. possessions free; Canada, Mexico add \$6 per year; other countries add \$18 per year. Published bi-monthly. Please allow four to six weeks for receipt of first issue. Executive, Editorial, Circulation, Marketing and Advertising Offices: 110 North Court Street, Fairfield, IA 52556. Telephone: (515) 472-6330, FAX: (515) 472-1879.

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POSTMASTER: Please send any address changes to *The HP Palmtop Paper*, Attn: Thaddeus Computing, Inc., 110 North Court Street, Fairfield, IA 52556.



Letters

We Like the Email Newsletter, and...

Thanks for the little e-mail newsletter. I wanted to ask you to make a pitch for someone to program a viable, 2-way interface for the HP Palmtop PIMs and MS Outlook. To me, this is one of the biggest, long-term challenges our little HP 200LX faces! I am willing to pony up considerable bucks to get something that is really viable (a la Intellisync?). Thanks for your help,

John R. Peckham
john@peckham.com

It's a very good idea, this PTP Newsletter. Please continue with this good work. I use my HP 200LX a lot. I am the network administrator of the Argentina Scania Network and can tell you that almost every hub, router or multiplexer device configuration is on my palmtop. I purchased an HP 620LX last year but I prefer to use the HP 200LX.

Roberto Mercau
roberto.mercau@scania.com

I am a long time subscriber to *The HP Palmtop Paper* and look forward to your success with the email newsletter. If there is a charge, please advise and I will give you a credit card. Thanks and good luck.

Harmon Garrin
hgarrin@att.net

We appreciate all those who sent e-mail. Please note that the Palmtop Paper E-mail Newsletter is a free service. You can request it at www.thaddeus.com/free.htm

CD InfoBase Request

Over the past couple of years we've received several requests similar to the following.

May I respectfully suggest the CD InfoBase be converted to HTML format so we can use it on our Palmtops?

David Lawrence
katana@clear.net.nz

We've considered converting the CD InfoBase from its current HyperWriter format to HTML. In the end, we decided against it. The deciding factors were time and money.

You may have noticed that the CD version of "PC in Your Pocket" is in HTML format. It is not indexed whereas articles from past issues of The HP Palmtop Paper are. This makes it less useful as a reference work. On the other hand the HTML format does make it possible to read the book on your Palmtop.

If you want to read the other CD InfoBase articles on the Palmtop, you can use the File, Export command in HyperWriter to save articles as ASCII text files. If you want to search for words in an article, you can load the file into Memo.

Having said that, one of my goals for the next year is to select those articles from the CD InfoBase that have stood the test of time, massage them into HTML format and make them available on our Web site. Stay tuned. We're not done yet.

Call for a Gutenberg Database

Each year I look forward to receiving the Project Gutenberg collection along with the CD InfoBase. Now that I have a 32 MB Palmtop, I am interested in carrying a few e-books with me. The problem is that, as the collection of books grows, it becomes more

difficult to browse through the titles and authors. Of course, the time I'd most want to browse is when I'm away from my desktop.

Has anyone created a GDB database of Gutenberg files? This would be very useful. If it doesn't already exist, I strongly encourage Thaddeus to create it and ship it with the CD. It would be a pain to build it the first time, but maintenance each year would not be so bad.

Ken Morrison
KAMorrison@csi.com

This sounds like a good idea and should be do-able. It would require a 1200 item file and would need some forethought about the different fields to put in each item.

HP 200LX is Good Medicine

I found yet another occurrence of the HP 200LX in real life applications.

At the Neonatal Intensive Care Unit here at Cedars-Sinai Medical Center in Los Angeles, CA, we are testing a new device for monitoring patients. The device is handheld and has a serial port which is connected to an HP 200LX for data collection. Perhaps this is not incredibly exciting but it was a thrill for me (okay, I lead a very dull life).

Also at Cedars, all of the Medicine-Pediatrics (and perhaps Internal Medicine, as well) residents are offered a 2 MB HP 200LX as a loaner during their residency (being in Pediatrics, I had to buy my own). We have infrared printers available on all of the floors for printing and will occasionally beam patient info between computers when we switch services.

Terrence Chun
tchun@UCLA.EDU

Please Bring Back the Early Days

I've been a subscriber to and supporter of *The HP Palmtop Paper* practically from day one and must first thank you for providing an invaluable service and rallying point for all Palmtop users. I used to read every issue several times, as there was so much useful information, so many insights.

However, I've noticed a steady decline in the quality of the publication. There have been too many issues in the last 1-2 years that I've been able to flip through in 2 minutes and not feel inclined to return to. The decreasing number of pages is very distressing. Lately it seems that the catalog that comes with every issue is thicker (and more interesting) than the PTP itself.

My notice to renew just came up and never in the past have I hesitated. Right now I'm wondering, as I'm sure are many other subscribers—will the emphasis continue to be on product marketing or could you not take steps to return to the heyday of your enthusiasm in uncovering interesting insights, uses, and USERS? I'd like more photos, in-depth articles, human interest stories like the one about a US Army officer using his Palmtop in Desert Storm several years ago. There is so much that you can still go after, but will that be the case, or is PTP going to be more and more an expensive mail-order catalog for me?

I hope you don't misconstrue the tone of my message—I do want you to continue selling me stuff, and I HAVE benefited. But could you please shift gears and bring back the old-style PTP?

Peter Chia, Singapore

Continued on Page 31

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New Products

New and recently updated software and hardware, including Palmtop to Windows conversion software.

By Ed Keefe

The HP 49G Calculator

HP 49G Calculator and 1999 Calculator Conferences

Many HP Palmtop users migrated to the Palmtop after their favorable experiences with HP calculators. Here's some news that may be of interest to those who are still attached to these powerful tools.

The Hewlett-Packard Calculator Division has recently announced the successor to the HP 48 scientific calculator, the HP 49G.

The calculator uses the same Saturn CPU as the HP 48 calculators but reportedly runs almost 10 times faster than its predecessor. There is no infrared device but wire connectivity is vastly improved. There is no way to add a memory card.

What the picture doesn't reveal is the color of the HP 49G, robin's egg blue, and the fact that the keys are rubber rather than plastic. Supposedly keyboard entry is also faster than on previous calculators.

To read more about the HP 49G itself, visit the Web site, www.hpcalc.org/hp49g.html.

The HP Calculator Operation (ACO) has been based in Australia for the past two years after having made a stop-over in Singapore. Look for some good things from "down under."

Handheld Conference

On August 20-22, 1999, the ACO will sponsor a Handheld Conference in Vancouver, WA, U.S.A. to formally present the HP 49G. To learn more about this and other HPCC confer-

ences visit the Web site at www.hpcc.org/conf99.html.

Outlook and the Palmtop

Recently, two new programs have been advanced as partial solutions to data transfer between the Palmtop and a Windows-based computer. The first program, is from Curtis Cameron, the author of many game programs for the Palmtop. Curtis's program provides a two-way data-conversion between PhoneBook on the Palmtop and the Contacts application in MS Outlook. The archive file is called OLC2LXinst.EXE (version 1.8) and may be obtained directly from members.aol.com/freewhL44/lxgames.html. Several users who have tried the program attest that it is simple to use, works quickly and generates PhoneBook (.PDB) files that work on the Palmtop and with Cpack on their desktop. Curtis warns that this version is still a program-in-process and should be used only after you have made backups. Here are some of the features of the program.

It supports standard (.PDB) phonebooks and non-standard (.GDB) contact files

It can handle data from Outlook 97, 98, and probably 2000.

You can select multiple contact folders in Outlook by holding the CTRL key and clicking on the folders.

You can map the fields between Outlook and the Palmtop's PhoneBook any way you want.

You can assign multiple Outlook



fields to each PhoneBook field. In case an Outlook field is blank, it will go to a second or third field to find data to put in a PhoneBook field.

You can separate Outlook's multi-line street address fields into their first, second, or third lines and assign them separately to Palmtop fields. The field mapping is stored for each different Palmtop file you use, so you can have several different files and it will remember the mapping for each. This information is stored in the same directory as the Palmtop file, using the palmtop file name, except with a .MAP file extension.

If you pass a palmtop file name on the command line, that palmtop file, along with all its mapping info, will be loaded when it starts.

If you also pass the string "/run" after the file name, then the conversion process will begin automatically.

The Palmtop's extended characters are converted correctly to Outlook but not the other way.

To use the utility, you must have

Status Report: Synchronizing the HP Palmtop PIMS with MS Outlook

There continues to be an interest in synchronizing the HP Appointment Book, ToDo list, PhoneBook, and NoteTaker files with the corresponding applications in Microsoft's Outlook 97/98. Although some Palmtop users decry the use of Windows PIMs, others do not have that option. Their company mandates that they use MS Outlook for all appointments, tasks and contacts. For these people synchronization means they can keep their Palmtops and not have to switch to a WinCE machine.

What Most Users Want

Here are the specifications for a program to synchronize data between the Palmtop and MS Outlook.

The output for the ideal synchronizing program will be two sets of files: one for the Palmtop and the other for use with MS Outlook. Both sets of files will have the same number of records. The records in the MS Outlook files will contain all the fields while the records for the Palmtop files will have far fewer fields. The input for the program will consist of one or more data files from the Palmtop and the corresponding data files from Outlook. The program should allow the user to select whether to synchronize all files at once or to use only an Appointment Book and/or PhoneBook file now and other files later.

The synchronizing program should be a stand-alone program that does not require the use of other

data conversion programs. It should be a Windows program that runs on a desktop or laptop computer.

Complete synchronization involves solving two classic computing problems, namely, data-conversion and record-conflict-resolution. Here are the specifications for each of these problems.

Data-Conversion

Given that the number of fields in an Outlook application exceeds those in an HP application and given that the fields may also have different names and different formats, the data-conversion program should provide a default mapping of fields from MS Outlook to the Palmtop's applications. The program should also let the user override the default. Extra fields from the MS Outlook data should be retained.

Ideally the field mapping should be done in the computer's memory and should not require the use of intermediate files. However, handling records with large Notes fields may require the use of intermediate files on disk.

Record-Conflict-Resolution

Once the data has been converted to a common data structure it can be processed to prepare it for the next step: record-conflict resolution. The program should detect records that have no conflict and those that do.

No-conflict (identical) records will consist of those in which all fields, common to both the Palmtop and Outlook, match perfectly. These

records will be written to the two sets of master files.

No-conflict (new) records will be those in which no fields match. These records will be sent to the two sets of master files. For the case in which a record has been deleted on one platform but not the other, there must be some way to detect and deal with this.

Conflicting records will be those in which some fields match and some fields do not. For example two appointment records may have the same date and time but different descriptions. To further refine the matching of time fields, the program should detect overlapping time fields. Thus two appointment records would conflict if a second appointment appears to start while a first appointment is still in progress.

The user should be presented with the two conflicting records and asked to decide which one to keep and which one to discard. A further refinement would be to allow the user to edit individual fields in the final record before it is written to the set of new master files.

Admittedly, the user will spend a lot of time dealing with conflict resolution the first time he or she runs the program. Subsequent, daily running of the program will be less of a hassle.

The complete synchronization program continues to elude programmers who have tackled the problem.

OL2LX has been tested with Outlook 98 and HP 200LX (4MB) and the APPTS.EXE program from the Windows version of the Appointment Book. It exports the following Calendar fields: Start date, End date, Subject, Body, Recurrence pattern, Reminder set, Reminder time. It also exports the following fields from

these things: MS Visual Basic 5 (SP3) runtime files, available from www.hotfiles.com by searching for "vb5 runtime." You must have Outlook installed on the computer running this utility. You need to check the field mapping to make sure things is going where you want.

The other program is by Juha

Husgafvel (juha.husgafvel@progman.fi) and is designed to export Outlook Calendar and Task information to HP 200LX Appointment Book (.ADB) format. The current version converts files one way only.

The archive file is called OL2LX_02.ZIP and may be obtained directly from www.tuug.org/~hysky.

Outlook's Tasks application: Start date, Due date, Subject, Body, Recurrence pattern, Reminder set, Reminder time. It will not export other information from Outlook. The programmer reports that there are some known problems with the program, namely, weekly repeated appointments, in Outlook, are simulated with Palmtop's Custom Repeat feature but there is no way to get the frequency of repeats. Likewise the program can't handle repeating tasks in Outlook 97 that have been deleted yet it will do so with Outlook 98.

For some unknown reason, Outlook tasks that were marked as completed and then unmarked show up as two separate tasks.

All in all, this is a large first step but nowhere near a complete synchronization program. It is definitely worth a try if only to give the programmer some feedback on other features that need to be tackled.

New Palrun Makes Programs Look Better on a Desktop.

If you want to run programs, based on the PAL library, on your MS-DOS computer, you need to set up the computer to handle the graphics and other features supported by the Palmtop. To do this you first run the Palrun program and then a pro-

1	2	3	4	5
5:1998-09-05	1	「Ctrl+D」でData Cardをon/offで	「Ctrl+D」でData Cardをon/offで	「Ctrl+D」でData Cardをon/offで
	2	「Ctrl+Shift」で「Ctrl+Shift」で	「Ctrl+Shift」で「Ctrl+Shift」で	「Ctrl+Shift」で「Ctrl+Shift」で
	3	「Ctrl+Shift」で「Ctrl+Shift」で	「Ctrl+Shift」で「Ctrl+Shift」で	「Ctrl+Shift」で「Ctrl+Shift」で
	4	「Ctrl+Shift」で「Ctrl+Shift」で	「Ctrl+Shift」で「Ctrl+Shift」で	「Ctrl+Shift」で「Ctrl+Shift」で
	5	「Ctrl+Shift」で「Ctrl+Shift」で	「Ctrl+Shift」で「Ctrl+Shift」で	「Ctrl+Shift」で「Ctrl+Shift」で

Screen 2: TODO.EXM displays ToDo's in a spreadsheet layout.

gram such as PalEdit or HV.

Palrun has been available for over a year now. Andreas Garzotto has just released an updated version that corrects a couple of bugs and adds some new features.

The most notable feature is that the 6X8 sized font used on the Palmtop is mapped to an 8X8 sized font on the desktop. This makes PAL-compliant programs look better on a desktop computer.

If you like using the PalEdit editor, you should see what it looks like in full screen mode. Palrun, ver. 1.03 will let you do this.

VDE Is Now Y2K Compliant

If you prefer the VDE editor from Eric Meyer, you'll want to get version 1.87a of this program before the end of the current millenium. Eric has made sure that all the features of VDE are Y2K compliant and has added some new features which make it possible to read and edit Word 97 files.

Tired of the Same Old ToDo List?

If you're growing weary of looking at that growing list of ToDo's that never seem to get done, perhaps a new ToDo list will help. A slight change in perspective may be just what you need to overcome procrastination. (Then again, maybe not.)

TODO.EXM is a new System Manager Compliant program from Taiyo, a Japanese Palmtop programmer. The TODO21.LZH archive may be downloaded directly from <http://hp.vector.co.jp/authors/VA014919/soft/todo.htm> The program's documentation is in Japanese but help

in exploring the program's features is available from several people on the HPLX-L mail list. The above Web page also has an archive file TODO21S.LZH that contains the Turbo C source code for the program.

TODO.EXM displays ToDo's in a spreadsheet-style format with columns A-Z and 99 rows (see Screen 2). Each cell can have a ToDo note with a start date, due date and last time edited date. You can adjust the size of each cell, which will show more or less cells on the screen at once. There is a size adjustable data card window, which will show all of the text for the currently selected ToDo cell. You can put a title on each column. You can sort columns in different ways. You can jump around the rows and columns quickly. TODO.EXM is one of those programs that is worth a try if only to see if it helps.

Finally, a Use for cc:Mail

The HP Palmtop started its life as a Hewlett-Packard and Lotus Development Corp. product. At the time it was the only palmtop device to feature a spreadsheet program from a major corporation: Lotus 1-2-3.

Lotus Dev. Corp. also wrote the original version of System Manager and added cc:Mail Remote to the software that would run under SysMgr.

However, to use cc:Mail on the Palmtop you had to have access to a server running cc:Mail: something hard to come by.

Now you can, if you want, use that blue key and receive and send email using a standard POP3 protocol.

Continued on Page 31

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Updated Products: X-Finder

Looking for a better Filer and/or App Manager for your HP Palmtop? Here's an in-depth look at the latest version of X-Finder.

By Peniel Romanelli

X-Finder is a GUI program launcher (like the Palmtop's Application Manager), a file manager, an archive manager, an icon viewer and a file transfer program all in one package. It knows how to handle long file names, aliases for paths, and symbolic links. The program is stable and user-configurable. The launcher and file manager are much more powerful and versatile than those built in to the Palmtop. Basic installation is fairly simple.

However, be forewarned: X-Finder is a Palmtop "power-user" tool. Setting it up exactly the way you want it is no trivial task. You'll find that it can take the place of many of your favorite file-manager programs and, as a result, you may wind up reconfiguring much of your current Palmtop setup. Don't expect the folks at Hewlett-Packard or Thaddeus Computing to answer questions about X-Finder. If you need help getting it to work, post a message on the HPLX-L list. There are a growing number of X-Finder users who will try to answer your questions.

The program was first mentioned in the Nov/Dec 1998 issue of *The HP Palmtop Paper*. Since then, the author Gaku Nakagawa has updated the program and Toshiki Sasabe has done his usual great job of translating the doc-

umentation into English. The program still remains free for personal use.

Memory Considerations

X-Finder uses about 65K bytes of memory to run. However, if you close Filer by using the CLOSEFLR program and don't start Application Manager, you'll lose only 7K bytes of memory overall. The trade-off is worth it.

Screen 1 shows the XF starting display on my palmtop. This is a GUI launcher that can use over 200 icons. The icons on my Palmtop screen are set up to launch my favorite programs, my most-frequently-used databases and to open other program folders. This setup is substantially different from the default Palmtop setup that comes in the X-Finder (XF) archive.

The Yin/Yang icon (top left) opens the XF file manager with a split screen - drive C: on the left, A: on the right. (See Screen 2).

There are several options for the launcher and file manager screens that will be described later.

The two icons labeled "More DOS Apps" and "Games" open HDM fold-

ers to launch programs. Eventually I'll convert the HDM menu program to X-Finder but for now this is the setup that I use. There are also icons that start macros to open the main Phonebook using different subsets.

X-Finder's Features; The GUI Launcher

XF starts with a screen similar in appearance and function to the Application Manager's screen. From this screen you can start any of the built-in applications, any DOS or System Manager Compliant programs and XF's file manager. In addition, XF will open databases from icons, run macros from icons and even access files and run programs on a remote computer. EXM programs can be launched even if they're not registered in App Mgr or MoreEXM. You can nest one XF screen within another. That way you can have separate screens for games, communication software and infrequently used programs. How to do this will be described later.

The default, opening screen is set up to select from three palmtop drives,

ABOUT THE AUTHOR

Peniel Romanelli is a bromeliad (tropical plant) grower in Miami. He is also Webmaster and vice president of the local Bromeliad Society. The BSSF Web page which Peniel created using his HP 200LX is located at www.seflin.org/bssf/. He is also the maintainer of HP-Pygmy Forth for the Palmtop, and wrote Charge-It! (using HP-Pygmy).

Installing And Setting Up X-Finder

Read the documentation carefully! The manual for FINDER.ENV alone is longer than this article...

If you don't already have it, get LHA255.EXE and install LHA in a directory in your path.

X-Finder is an EXM. Put it in any directory you want and install it in App Mgr. Move FINDER.ENV, ICON.LZH, and ICONFLD.LZH to C:_DAT but don't extract the files. XF uses them from inside the archives!

Create 2 directories: C:\PALMTOP AND C:\TRASH. Extract PALMTOPLZH into C:\PALMTOP (using LHA).

Get some support files (mostly on SUPER): MaxDOS, IconEdit, Zip/Unzip OR PKZip/PKUnzip, ZCopy (there are 2 programs with this name). The one you want is at: www.vector.co.jp/common/00tools/zcopy.com

Edit FINDER.ENV using Memo or any text editor. The first changes you'll need to make are to set up XF for your choice of editor and file viewer. The .env comes set up for MemoExpress and LogExpress, programs that require the Japanese fonts from the commercial JKIT package. (I use VDE for editing, and List for viewing). These are the lines from my .env file:

```
#Editor setting (me, vz, mini, etc)
%e ,240r ,a:\vde\vde.exe
#Viewer setting (lex, le, vvc, miel, etc)
%v ,200 ,list
```

Once the editor is installed correctly, hitting F7 (Custom) in XF will open FINDER.ENV in your editor. You'll probably also need to adjust some paths in the .env file.

If you're using PKZip/PKUnzip, you'll need to change references to Zip and Unzip. Also one parameter should be changed in the "Execution by matched file extension" section. Change

```
.zip ,k ,unzip -l %c
to
.zip ,k ,pkunzip -v %c
```

Here are some other archive-related changes I made in the .env that you might find useful. (From the ...matched file extension section)

```
.lzh ,k ,lha l %c
,192+lt ,lha x %c %m
,192+ck ,lha t %c
.zip ,k ,pkunzip -v %c
,200+lt ,pkunzip %c -d %m
,200+ck ,pkunzip %c -t
```

These will set XF to extract either type of archive to

the directory across the split screen if [Shift][Enter] is pressed, or to test the archive with [Ctrl][Enter].

The X-Files

These are used to make entries in the GUI launcher screen. Here are some examples of different types:

.XFD for drive or directory (opens the file manager there)

3ramdisk.xfd contains c:
icons.xfd a:\icons

.XFE for executable commands (both DOS and XF commands)

post.xfe maxdos -da:\www www -d "post"
edit.xfe pe | 250
phone.xfe \$m {xb400}

There's one "gotcha" with launching DOS executables with .xfe files. If the program expects to find support files in the same directory as the executable, it will fail unless the .xfe explicitly changes to the drive and directory. The MaxDOS example solves this, or it can be done with a batch file, or by including multiple commands (separated by semicolons) in the .xfe

e.g. c:;cd \forth;hp-pygmy.com
is the equivalent of a batch file containing:
c:
cd \forth
hp-pygmy.com

Using the .xfl symbolic link avoids this but pops up a message box with an "OK" button. You have to hit [Enter] again to start the program.

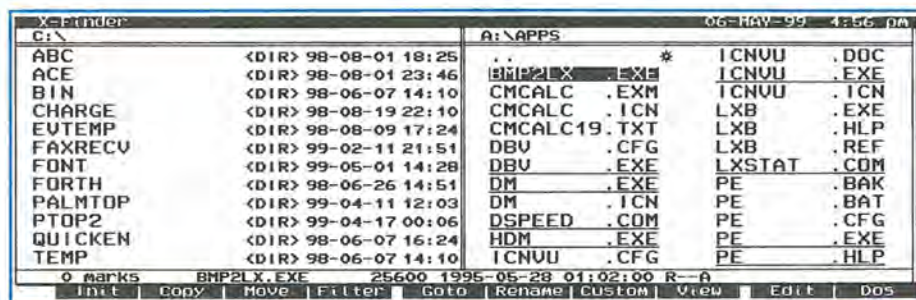
.XFF is created automatically by using the symbolic link function. This can be used to create links between executables or data files and the launcher.

.XFK for built-in apps (zero byte size file)
b400.xfk (No contents! - starts phonebook)
.XFL for EXMs (also zero byte size)
whereis.xfl

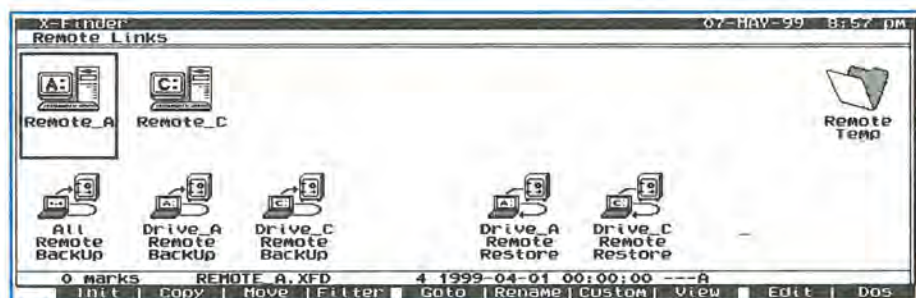
If you download XFP3.ZIP from SUPER, it contains x-files for drives, .xfk zero-byte files for built-in apps, and a program that will create .xfl zero-byte files for all the EXMs installed in AppMgr and MoreEXM. ■



Screen 1: The opening screen of X-Finder can look like Application Manager



Screen 2: X-Finder displays more information than Filer



Screen 3: X-Finder can link with remote drives for backup



Screen 4: X-Finder can serve as an icon viewer as well as a program launcher



Screen 5: X-Finder can show the date and time stamp for all files

remote drives and the split screen file manager. It is also configured to open the Phonebook and Appointment PIMs, to run CHKDSK on either A or C, and to do remote backups. This is my personal configuration. However, with X-Finder, you can adopt the configuration provided with the initial installation, tweak it a little or tweak it a lot as I have. Almost everything about XF is user-definable.

The screen items are defined in what I call the "X-Files" (they use extensions .xfd, .xfe, .xff, .xfk, .xfl, and .xfm). These will be located in their own directory (C:\PALMTOP is the default) or they may even be kept in an LZH archive. The X-Files contain drive or directory paths for the file manager (.xfd), executable DOS and/or XF commands (.xfe and .xfm), symbolic links (.xff), or nothing at all (.xfk and .xfl). These last two are zero byte files with the hex code of an application hotkey or the name of an EXM as their name! If you download XFP3.ZIP from SUPER, it contains X-Files for drives, .xfk zero-byte files for built-in apps and a program that will create .xfl zero-byte files for all the EXMs installed in App Mgr and MoreEXM.

Secondary launcher screens (See Screen 3) are set up by creating a directory that includes a caret (^) in its name. (The one shown is called REMOTE^). This will use the same system of X-Files to define items for launch. A symbolic link can then be created with the main /Palmtop screen.

The order of icons on the screen is alphanumeric by default, but can be changed in the FINDER.ENV file or from the menu. Reverse date/time sort works best for me. Icons are contained in the C:_DAT\ICON.LZH file and are used directly from the archive. Each icon shares the name of the associated X-File. For example, if you have a file called FORTH.XFE that starts HP-Pygy Forth, then the icon would be FORTH.ICN. Icons can also be associated with file extensions. A collection of icons to use with

XF is available as XICONS.ZIP.

XF can launch more programs than the built-in Application Manager. However, it does not have the ease of use of App Mgr. There is no "Add-an-application" key. Rather, you have to create an .XF? file in the Palmtop directory.

The File Manager

Some configurations of the XF file manager may resemble Filer, but it's really a lot more. Like Filer, it can use either a full width or split screen (Screen 4) display. It can also provide a GUI file listing - also full width or split screen. If you use the list view, you can tell XF to display the date and time the files were last modified.

At the bottom (just above the function keys) a status line shows the number of marked files (for copy, move, or delete), the name of the file at the cursor, its size, date/time stamp and attributes. Read-only files are underlined in the listing (Screen 5).

The [Tab]key switches the cursor from one side of the split screen to the other. Pressing [Shift][Tab] toggles between split screen and full-width display. The format for each side of the split screen can be chosen independently. Zoom ([Fn][Spacebar])

rotates the display mode between Detail (including date/time info), List (names only - two columns per half-screen), and Icons.

Probably the most significant advantage is that XF treats .ZIP and .LZH archives like directories. This is transparent to the user. Selecting an archive will bring up a file listing exactly like a directory. File copy, move, delete, and rename work as usual. Archived text files can be viewed or edited. About the only differences between working in a directory and an archive is that file attributes can't be changed in archives.

XF provides the ability to associate file extensions with certain programs (similar to using FILER.INI on the HP 200LX). However, unlike the associations in FILER.INI, XF will let you link a file to several different programs. You choose which program to use by the [Enter], [Shift][Enter], [Ctrl][Enter], or [Ctrl][Shift][Enter] keys. For example, .pcx, .gif, .jpg etc. files are associated with LXPIC. Selecting the file and hitting [Enter] displays the image. A .doc file could be displayed using LIST when [Enter] is pressed, and with VIEW if [Ctrl][Enter] is pressed.

This multiple association feature

could let you eliminate the FILER.INI file along with the CHOICE.LXB file and the LXBatch program if you use them. XF does everything these programs and files can do and more. If you haven't tried using CHOICE.LXB, spend your time setting up XF and save the LXBatch program for something else.

The file association logic works with DOS programs, EXMs, and the built-in apps. Lotus .wk1 worksheets can be opened in 123, databases in the appropriate app, HTML documents in HV etc. Add as many associations as you want in FINDER.ENV.

XF can use long file names for both files and for the path headings on the file manager screen. Using this feature is very simple. For files, just move the highlight (or box cursor in the icon screen) to the file, and hit the comma key to bring up the "Extra Name" dialog box. Type the name and [Enter]. For paths, hit [Shift][.] (use the . on the numeric pad!) for the "Extra Title" dialog.

Another powerful capability of XF is the creation of symbolic links. This can be used to add entries to the Palmtop launcher screen. To use this feature, select a file in the file manager, press [Spacebar] to mark it, move to the /Palmtop screen or directory then hit [Ctrl][-]. Press [Enter] to confirm and the link is created. This adds an .xff file to the palmtop directory and gives the .xff the original filename as an alias. Symbolic links to databases will let you open them in their proper application. EXMs and DOS executables can be run from symbolic links. XF treats symbolic links exactly as if the linked file was selected in the file manager.

For easy recovery of deleted files, XF uses a trashcan. This, by default, is C:\TRASH. Deleted files are moved there. Files deleted from Trash are gone. Trash can fill up quickly, so it's a good idea to check it periodically, and clean it out. Trash is also used as a temporary directory when working with archives.

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MUPs

Wonder what Palmtoppers do with their vacations or travels? Here are some more Messages Upon a Palmtop from some Most Unusual Places.

By Linda Worthington

It's summer in the northern hemisphere. Palmtop users are out-of-doors, taking in the sights, travelling and recreating. They also want to let the rest of the Palmtop community know that they haven't left their personal computers at home.

Here then is the latest batch of Most Unusual Places from which to send a message with a Palmtop.

Under water...

This message is written while scuba diving near Isla de Roatan, Honduras C.A. There's no phone line in the water. Will send this later.

Happy bubbles,

Larry Nielsen, 104475,2520

In the air...

We are preparing to deploy our HIANG (Hawaii Air National Guard) KC-135 tankers to France. As aircrew and PAX (passengers) go through final briefing, AG inspection, baggage loading and PAX boarding, there is an increase feeling of excitement and an anticipation as we all realize we are finally "good to go." IANG aircraft and crew will be supporting Bosnia No-Flying NATO operations and refueling NATO fighters, should be interesting, if the air strikes start.

We flew 8 hours to a midwest ANG air base and stopped for fuel and aircrew rest. It was easy to work on my HP 200LX on a smooth riding KC-135 tanker cruising at 35K at

Mach.85 (about 500 knots TAS). I have a small Zelco clip on, flexible neck flashlight with a red lens so I can see the HP 200LX screen en route. The main difficulty is using the keys with nomex glove and the small print on the screen, so I have to enlarge the screen. I will be using asCIS4 to get email and get forum messages while I am TDY (temporary duty) in France. I am also trying to use WWW/LX to get on the web. Can I use my HPF1011A AC/DC adapter (100-240V ~0.3A)? Are the phone line connections the same? Forum members have been quite helpful in getting me set up to use my HP 200LX while on TDY. Aloha, Ando "Sensei"

Richard Ando, Jr., 110562,2741

March 19, 1999 Hickam AFB, HI

In Brazil...

This was almost an "almost" MUP because on my way to the skylift, it started to pour down rain, so I ducked under the eaves of a storage shed to start this. Then I only had to keep wiping the splashes of water from my screen.

The skylift was built over the Rio Tagabi by Klabin Industries in 1959 to

help their workers get to work from the town of Telemaco Borba, Parana, Brazil. I pay one Real to cross both ways. I am staying at the Ikape Hotel which is part of a small very peaceful community named Harmonia. Originally only supervisory employees of the mill, and their visitors, could enter here. The community is pretty much self-contained, although the only supermarket moved into town a few months ago seeking new customers.

From the skylift I have a good view of the valley. Most of the poorest homes cluster about the banks of the river, their only water supply, while better ones sit atop the ridge. However, some of the more affluent citizens apparently decided they wanted to share the river too, as I see some nice homes and some under construction on the higher banks. Telemaco Borba is a city of perhaps 50,000 people (my guess) set across three small mountain ridges with the river between two of them. It takes about 4 hours to drive here by car from Curitiba. There is an airport here used by only the brave or foolish. (Since I fit both categories I may try it



ABOUT THE AUTHOR

Linda Worthington is a native New Englander living in Maryland. She is a fly fisherman and loves hiking, photography and computing. Linda's company, LOW-TECH, is designed to help people choose and use portable computers. She also uses computers to do extensive volunteer conservation-related work for several organizations.

sometime. It can't really be more dangerous than the highways!

When the rain stopped I continued my 1-km now slightly muddy walk to the terminal, and boarded the car. I am glad I started this before, because too much typing spoils the view! Anyway, the ride each way is only 3.4 minutes.

Now I am back in my room with the air conditioner on to dry my clothes. I cannot connect my HP 360LX directly to CompuServe (without making unacceptable changes to my CIS configuration), so I had to upload this file to my laptop for that. Now I will see if I can get this sent out. Lately I have been able to get CompuServe to work only one out of three or four logins. I think it is bad telephone lines here, although it does seem to work better when I use the 800 number. (It is not practical to log into the Sao Paulo number because it is long distance anyway, is very slow, and almost always busy.) So I dial back through AT&T to the USA. Usually it's cheaper that way, but not with all the problems I've been having the past few days.

Marvin L. Zinn, 70714,1310

On the road...

Greetings to everyone from Bob Newins, my mother and me! We are having a late dinner at TGI Fridays in Richmond, Virginia. My mother and I are passing through Richmond on our way to Rock Hill, South Carolina where my mother will be moving into her new home. Bob was kind enough to help me with recommendations of a place to stay and eat. I planned out the route with Delorme Street Atlas, and then fed the routing info into my GPS so that I won't get lost. I also used GPSCGA to have a moving map display on the palmtop for the time I was driving the back streets of Maryland to stop at my uncle's house for lunch. Bob came to the restaurant with a huge brief case full of fun stuff like an Omnibook 600CT, Pentax printer, cell phone, paper maps, pocket modem, etc. I think he had a kitchen sink in there also, but he would not let me look inside.

Well, it is time to finish eating and get going. I will plug in my new Smart Modular ApexData 33.6 PCMCIA modem and connect to my cell phone to send this message.

Stan Dobrowski [TeamHP], 71031,2162

In a plane...

I am flying from Pittsburgh to Albany at about 11:00pm on Friday, April 17. We are at about 35,000 feet and there is a spectacular display of the Northern Lights off the left side of the plane. Don't know if any of you saw it from the ground.

Victor Roberts, 70413,1423

On the stump...

Right now, I am sitting on a tree stump on the grounds of a beautiful retreat house in north central New Jersey. The tree stump I am sitting on has some special significance. It used to be a giant pine tree. Several years ago, the folks from Rockefeller Center bought the tree for use as their Christmas tree in New York City. The Sisters here told us all about how the Rockefeller Center people picked out the tree and took care of it for a while so it would not get damaged after it was chosen. Then, when the time came, they cut it down and hauled it away. The tree is long gone now, but the famous stump will live on in MUP history.

As is my policy with MUPs, I will attempt to transmit right from the MUP sight. So, I will whip out my cell phone and new PCMCIA modem to go online right now.

Stan Dobrowski [TeamHP], 71031,2162

On the grass...

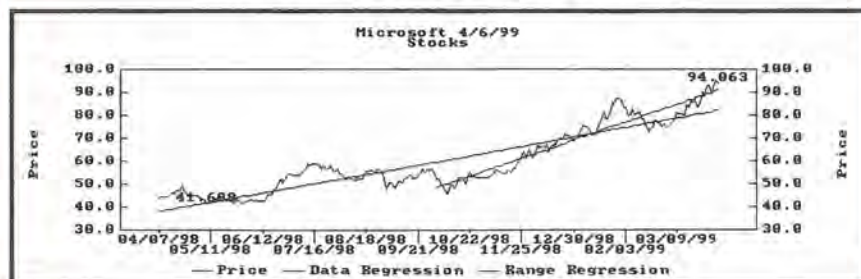
Greetings from Panoply, Huntsville's annual Spring festival of the arts. We are sitting here on the grass of Big Spring Park listening to Inkari, an Andean music group.

Earlier on we watched some dance (Ballet and tap). The children got to meet Arthur (PBS character) and the Puzzle Place characters put on a song and dance routine. Faces were painted, Helium balloons were tied to wrists, fish were drawn and colored, tambourines were made, sand pits were dug through for buried treasure and now we are resting before heading off to find something to eat.

Gary Spiers, 74603,3001

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A Light at the End of the Tunnel

For those who want to use their Palmtop in the dark, there may be a solution in the works.

By David Sargeant

EDITOR'S COMMENT: David presents an illuminating article that describes the "why's and why not's" of producing a backlight upgrade for the HP Palmtop. At the end of the article he mentions that several people are working on a solution. We do not like to print articles that pre-announce future products. The products all too often do not make it to market because of "technical difficulties beyond our control." We chose to print this article because, if nothing else, it shows that avid users of the HP Palmtop are still interested in making something that works well, work even better.

During all the years that I've owned an HP Palmtop, the one thing I've wished for was a backlit display.

I often use my palmtop in conditions where lighting is not the best. But isn't that the whole point of a palmtop: to boldly go where no other computer can go? Yet, when I'm in a darkened classroom, my dimly-lit living room or trying to read an etext in a car on a poorly-lit freeway, I can't help but think that this is an all too evident deficiency in the palmtop's design.

I realize that there are already some ways to bring portable lighting to the Palmtop. For example, the best-selling solution has been the Flexible Pocket Light sold by the Palmtop

Network and more recently by Thaddeus Computing. While this solution is decent, the lighting is not very even and the light itself adds bulk to a portable setup.

Recent discussions on the HPLX-L mailing list have focused on the Photon LED (light-emitting diode) as an external light source. The interesting thing about this choice is that it's economical, if you have a Palmtop serial cable. You just insert the leads from the LED into the cable, and plug the other end of the cable into the Palmtop. The Palmtop's batteries supply the power. Stefan Peichl has even written a custom program to turn the proper serial port signals on and send power to the LED. However, in my opinion, external light sources are not ideal. You have to carry something extra with you and, no matter how you adjust the light, you always wind up with "hot-spots" and dim regions.

What is really needed is a full-fledged backlight. However, this is

easier said than done.

The screen of the palmtop is not really meant to be opened. There is a metal retaining clip around it that must be removed to install any back-lighting device. While it's not terribly difficult to remove this clip, it does require bending pieces of metal back and forth and at any point one of these metal clips could snap off, which would render the entire screen useless. So even opening the screen carries risk.

There is also very little room inside the display part of the Palmtop. There is a one or two millimeter clearance between the glass part of the display and the printed circuit board behind it. Any backlighting solution is going to have to be extremely thin. If it's too thick it will press against the LCD glass producing the characteristic discoloration we're all familiar with when liquid-crystal displays are put under pressure. Even worse, the display might crack.



ABOUT THE AUTHOR

David Sargeant lives in Boulder City, Nevada with his wife and two little girls. He is a computer engineering student at the University of Nevada at Las Vegas and computer system administrator for a local company. In his spare time he maintains the www.hplx.net Web site that is devoted to things "LX". David can be reached at david@hplx.net

It should also be noted that any light source would require some support circuitry whether it is merely wires to a power source or a full-fledged digital circuit board. This, too, must be small enough to fit inside the palmtop. (Most of the backlight kits developed in Japan use an external power source to get around this problem, but this means that you have to carry around a power pack.)

The greatest problem is that the screen is not designed for a backlight. To produce the typical light gray background on the screen requires an aluminum sheet stuck to the glass. This aluminum sheet reflects the light that hits the screen and allows you to see the images on the screen. The dark gray text and images come from polarizing filters that block the reflected light. Simply putting a light behind the display won't do anything since light would not penetrate the aluminum sheet. One way around this is to remove the aluminum sheet and let the dark green circuit board act as a reflective surface (imagine black letters on a dark green background!). Better yet, it might be possible to substitute a "transflective layer" that would allow light from behind to come through while reflecting light like the regular screen does. This would be a better solution since the backlighting would not have to be on all the time.

So given all the problems with backlighting the 200LX screen, is there any way to get the job done? The answer is "yes."

Since the HP Palmtop originally came to market, the producers of screens for PDAs have come up with at least two ways to make them more readable. The two techniques are LEDs and electroluminescent panels. Let's take a look at these.

LEDs are the little red, green or yellow lights that glow on your desktop computer or TV and VCR control panels. This type of lighting device is too large to fit in the cover of the Palmtop. However, surface mounted LEDs come in packages

small enough to slip under the screen very neatly

A big advantage of surface mounted LEDs is that the power requirements are low and there is very little need for extra circuitry. Theoretically, all you'd need would be some wires and a switch to turn the LEDs on and off. However surface mounted LEDs have a drawback. They produce uneven lighting. A point of light in the middle of the screen just won't cut it. On the other hand the HP 320LX, a Windows CE handheld device, uses just two surface mounted LEDs to light the whole screen. The LEDs are mounted sideways on the right of the display and shine into a plastic panel with a frosted back. This panel diffuses the light evenly across the screen and produces a bright, clear backlight.

Unfortunately, such "light-pipe panels" are not sold separately. You have to buy the whole display which is two to three millimeters too thick to fit in the Palmtop. A custom solution might be possible but this could cost quite a lot to develop.

A better solution to backlighting is the electroluminescent display.

Many people are familiar with this technology. It is used in wristwatches and display panels for bedside radios. EL panels produce a very even light in a wide variety of colors. The most common color is a blue-green because this is the most power-efficient color for EL technology. In addition, EL panels are thin and don't use much battery power. EL displays are rarely used to light areas as large as the 200LX screen (about 10 inches square), however there are EL panels of this size available and they will fit behind the screen with minimal fuss. Could this be the perfect backlighting solution? Well, not quite. While EL panels are power efficient, the power requirements are unusual to say the least. Rather than a simple, 3-5 volt, direct current, EL panels require a high-voltage, high frequency alternating current. To convert the power in the palmtop to something that

would drive an EL display requires something called an inverter circuit. These circuits consist of a bulky transformer and some transistors and other components, which would not fit in the Palmtop. The solution to this problem, common to most of the current backlight upgrades, is to carry along an external power supply for the backlight. The power supply uses several AAA batteries. As an experiment, I installed an EL panel in a Palmtop and can report that it works quite well. I ran wires from the screen into an external earphone jack on the side of my palmtop and put an earphone plug on the external inverter pack. Plugging the power supply into the jack and hitting a switch brings up a brilliant white light, suitable for operating the Palmtop in any lighting conditions. It's hardly ideal, and I haven't installed it in my regular palmtop because contrast, without the light on, is terrible but it's nice to know that backlighting can be done.

Some newer versions of EL backlights from Japan use an inverter circuit that is small enough to fit inside the Palmtop and is powered by the Palmtop's batteries. This may be a good solution for the palmtop, but there is still room for improvement. With this in mind, several people are working to produce a commercial, backlight upgrade for the Palmtop. With the talented engineers working on this, it may not be too long before we have a low-power, high-brightness, software-controlled backlight. We promise to keep you posted about the progress of this endeavor in future issues of *The HP Palmtop Paper*. ■

User to User

What if HP were to discontinue the Palmtop? Can the latest HP Windows CE Jornadas pick up where the Palmtop leaves off?

By Hal Goldstein

Rumors abound. We haven't heard anything official but there is the possibility that HP will discontinue the HP 200LX by year's end.

Since 1995 we have seen two HP OmniGo organizers and seven Windows CE PC Companions from the HP Handheld division. Meanwhile the HP 200LX remains the same and is, as many claim, the best of the lot.

The HP 200LX continues to sell despite HP's reluctance to market it. On the other hand, it's possible that sales of the Palmtop have dropped to a level that HP can justify omitting it from their product list. Let's hope this is only a rumor: another in a series of false alarms.

So What if HP Does Discontinue the 200LX?

How might discontinuing the 200LX effect HP Palmtop users? The answer is "not very much." HP has a policy of supporting its products (repair, warranty, tech support) for three years after it ceases production.

We at Thaddeus Computing expect to support the HP 200LX with repairs, software, knowledge products and upgrade services for a number of years after HP stops selling it. We can make that claim with confidence. We've been down this road before.

When HP quit producing the Portable Plus laptop in 1987 our business actually increased. We had more

sales and upgrades than ever before. We continued supporting the Portable Plus until 1991 when HP introduced the Palmtop. At that time we spun off the Portable Plus business so that users continued to have support until 1994.

Although used palmtops are in short supply now, if HP discontinues the 200LX, we expect to be able to get large numbers of HP 200LX's from corporations and end users. That means we will be able to recycle and keep available HP 200LX's and HP 1000CX's for years to come at reasonable prices.

Furthermore, as this issue of *The HP Palmtop Paper* demonstrates, hardware and software solutions continue to be developed for the HP 200LX. I am hoping that in our next Ultimate Palmtop Catalog we will be able to offer a backlight upgrade for the HP 200LX. See David Sargeant's article for more details. We also keep finding new software from Japanese programmers. It's amazing what a program like X-Finder can do to enhance the Palmtop. We can't thank Toshiki Sasabe enough for translating the Japanese documentation into English.

See Peniel Romanelli's article for more about X-Finder.

In addition, the "open source" movement for palmtop software continues. Pioneered by Gilles Kohl and the PAL project the open source movement means that new software can be designed much more quickly since programmers can build on the source code written by others and not have to reinvent things.

To find out more about these developments and to get your Palmtop technical support questions answered by strong, experienced users, I recommend the HPLX-L mail list. Thanks goes to Al Kind for moderating the list on his university's site and keeping the messages focused on the Palmtop.

HP's Latest Windows CE Machines?

In the past six months HP has introduced the Palm Pilot-sized HP Jornada 420, the almost-200LX-sized Jornada 680 and the mini-notebook-sized Jornada 820.

Our companion publication, *Handheld PC Magazine* (www.hpcmag.com) has reported on Windows



ABOUT THE AUTHOR

Hal Goldstein (hal@thaddeus.com) is Publisher and Executive Editor of *The HP Palmtop Paper* and *Handheld PC Magazine* and president of Thaddeus Computing. He has published, edited, and written for five magazines on portable computing since founding Thaddeus Computing in 1985. He lives with his wife, Rita, and sons, Thaddeus and Solomon, in Fairfield, IA.

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HV (Hypertext Viewer)

HTML browser to view Web downloads.

PE (PalEdit)

A MEMO-like editor with many enhancements including spellchecker.

VR (Vertical Reader)

Lets you read doc files and electronic books, vertically on the palmtop.

DBV (DataBase Viewer)

Fast phone, appt and database file viewer.

View

Lets you view files from a variety of word processing formats.

Tune

Metronome and musical tuner.

ZIP

Fast PC to palmtop serial transfer program.

Draw

Palmtop drawing/paint program.

PC Outline

Enter thoughts, plans, ideas, and organize them into a hierarchical structure.

Stereo Shell

DOS File Manager.

garlic

Fixes corrupt database files.

PKZIP

File archiver/compressor.

LHA

File archiver/compressor.

LXPIC

Lets you view GIF, JPG, BMP, PLX graphics files.

Andrew3

More readable palmtop font.

CloseFlr

Close Filer to save memory.

Buddy

Zillion utilities in one.

fastdb

Speeds up database programs (e.g. Phone).

MoreEXM

Breaks system limitation of 7 EXM files. Enable software like ZOOM.

Typing Tutor

Type faster on the palmtop.

Zoom

Wonderful Magnify-like program that enlarges and makes more readable any section of the screen in built-in apps. For example, can blow-up datacard for more readable phone numbers.

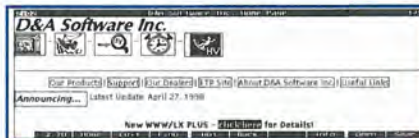
Subst

DOS 5 utility superior to ASSIGN.

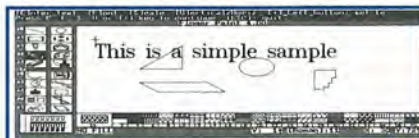
Vclock

Whole screen clock and timer.

Here's a brief preview of what SUPER Software Carousel does for your palmtop!



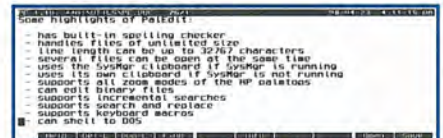
Use HV and LXPIC to view web documents graphics.



Paint, Flowcharts and maps with Draw



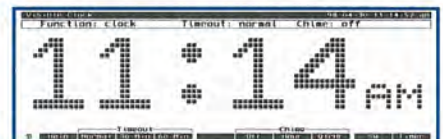
LXPIC can view PCX, BMP, JPG, GIF files on your palmtop.



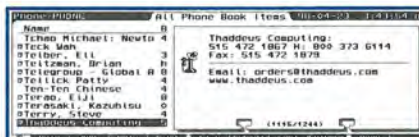
Advanced editing with MEMO-like PalEdit with spell checker.



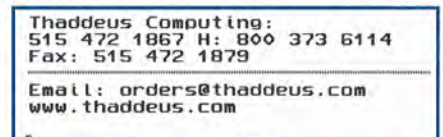
Read literature or documentation on palmtop sideways.



Visible Clock: Full screen clock, timer, stopwatch.



Zoom blows up any phone book, appointment book, or database item. Above is a before and after view.



Games

Dominoes	Golf	Mine Sweep	Solitaire (many kinds)
FreeCell	Blackjack	Reversi (Othello)	Therapist
Yahtzee	Bridge	Sokoban	3-D Tic Tac Toe
42 LX	Hearts	Boggle	Worm
Cribbage	Backgammon	Chess	
Tiles (Mah Jongh)	Checkers	Go	
Klondike	Tetris	777	
	MasterMind	Go-Moku	

How to Order

Super Software Carousel comes on a CD with complete, easy-to-follow installation instructions and a concise electronic User's Guide.

If you have Thaddeus Computing install it while your palmtop is with us (free installation) you'll still receive the CD. (You can even send your palmtop just for the free Super Software Carousel installation.)

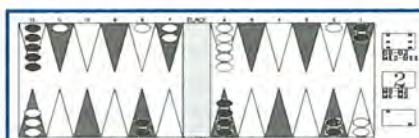
If you are upgrading from a previous version of Software Carousel, see "How Do I Upgrade?" on page 6 to save \$60.

Super Software Carousel (New) \$139.95 # SSCN

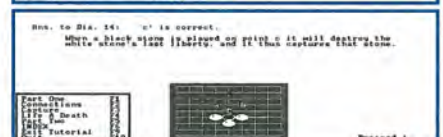
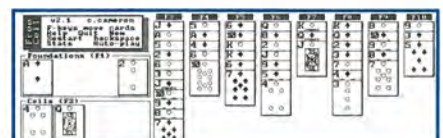
Super Software Carousel (Upgrade) 79.95 # SSCU

System Requirements

Includes the complete version of Software Carousel, plus lots of additional software. Runs on HP 100LX, 200LX, or 1000CX on flash disk or in system RAM (C drive). Full package requires 5 meg: a little over 2 meg for applications, 2 meg for games, and 1 meg for Software Carousel sessions. Even more applications than listed are included on CD.



Here's how Backgammon, FreeCell, Chess, and a Go tutorial look on the palmtop. Other games include Tetris, Checkers, a music selection, and a palmtop therapist.



Apps

Zoom Anywhere

Games!

Hewlett-Packard's Hot NEW Trio of Windows CE PC Companions

Jornada 680 Handheld PC



Jornada 820 Mini-Notebook



Jornada 420 Palm-size PC



have to wait for Windows to load before I can type in an idea. It only takes a second or two to start the ROM-based Pocket Word or Pocket Excel. The Jornada 820 is small and light and easily fits in my backpack.

One of my biggest objections to Win CE in the past has been that you could not read native Word and Excel documents created on a Windows 95/98 machine on a Windows CE machine. The latest version of the Windows CE Pocket applications for both the Jornada 820 and 680 eliminates this objection. You can now import and export desktop Word and Excel files directly on a Windows CE device. If someone sends me an email with an Excel spreadsheet attached, I can read it! I don't have to mess with Microsoft's temperamental serial transfer software. (Unfortunately, you can't read a Lotus WK1 file directly. You still have to save the WK1 file on a desktop, load it in a full version of Excel and then transfer it to the Win CE computer.)

Enter Jornada 680

When HP sent us the three different Jornadas, Rich Hall, former editor of *The HP Palmtop Paper* and current *Handheld PC Magazine* editor, immediately laid claim to the palmtop-sized Jornada 680. I acquiesced, telling myself that I already had a 64 Meg Palmtop, my HP 200LX. So I wound up with the larger Jornada 820 but Rich has let me play with "his" J680. After trying out both units, I know that Rich got the better deal. The HP Jornada 680 is the first Windows CE device I would even consider carrying with me as my regular handheld. Will I switch? No, but the HP J680 has some pretty tempting features. It has the same built-in software as the HP J820 plus limited macro capability and a NoteTaker-like program. Both handheld PC's have built-in 56K modems with Pocket Outlook for email and Pocket Internet Explorer along with several additional applications and utilities.

The HP J680 has a touch screen which I prefer. The most tempting fea-

CE since its introduction in 1997. In spite of the fact that we publish the only Win CE magazine, I haven't used a Win CE machine until this year.

Using the Jornada 820

So here I am, in a crowded airport, typing this article on the mini-notebook-sized Jornada 820. I have to admit, the full-sized, color, backlit, VGA screen is easy on the eyes. Pocket Word, a subset of MS Word, has all the features that I need. I'm not shooting for a finished product but rather something that I can turn over to our layout artist. The keyboard is

well laid out and responsive. Touch-typing is a breeze. The HP J820 uses a touch pad as its pointing device. I'm not fond of it since it takes some getting used to. I'd really prefer a touch screen or a pop-out mouse. However, given a choice between a sleek, sexy Windows 98 laptop and my Windows CE Jornada 820, I'd have to go with the latter.

With the Jornada I don't have to worry about battery life. The J820 will keep on ticking for 10 hours or more on a full charge. When I have a ten-minute break, I can turn the machine on and work for ten minutes and not

ture of the J680 has to be the keyboard. Even though the keys appear cramped, the engineers at HP did a superb job with the layout and key sculpting. I can actually touch type on this machine. Since I take a lot of notes at meetings and seminars and spend much of my time on the road writing documents and email, I like the idea of a useable keyboard on such a small device.

So Why Not Switch

On the other hand, the Jornada 680 is bulky and barely pocketable. I seldom wear a jacket, which means I carry my 200LX in my pants pocket. Given that the Jornada 680 is 1 inch longer, 1/2 inch wider, and weighs about 8 ounces more than the HP 200LX, it is an uncomfortable fit in my pocket.

Secondly, although the battery life of the J680 is good for a color handheld (6-8 hours), it doesn't come anywhere near the battery life of the HP Palmtop. The HP J680 requires rechargeable batteries and, even though I favor rechargeable batteries for ecological reasons, I realize there are times when the convenience of using off-the-shelf, AA batteries is necessary. This is especially the case on long trips and when AC is not available. I don't like being dependent on an AC adapter and having to remember to bring it with me. It means the Jornada 680 is truly not self-sufficient. (HP does offer an additional bulky, but long-lasting, second battery for the 680.)

Thirdly, although the built-in Win CE applications are getting better and less dependent on the desktop, I find the 200LX built-in programs are more capable and stable. The built-in 200LX database engine is more powerful than Pocket Access and the Windows CE phone application. Lotus 1-2-3 and HP 200LX HPCalc are far superior to Excel and the Win CE calculator. Addressing the weakness of the Win CE calculator, HP has included a second calculator modeled after HPCalc called OmniSolve (written by a third party, LandWare). Omni-

Solve has most of the HPCalc functions but omits two of my favorites: List and Solver. Furthermore, the number of applications that work on the 200LX far exceeds what is available for Windows CE.

In fairness to Windows CE, its applications work well. HP has gone the extra mile and included additional software needed to make its devices more useable (and more 200LX-like). In addition, new Windows CE commercial, freeware and shareware appears every day.

A fourth problem with the HP color Jornadas is that they are not very readable out of doors. HP has done a respectable job addressing this limitation and even has a configuration setting for reading outside. However, the 200LX is definitely more useable outside and the Jornadas are not readable in direct bright sunlight.

Fifth, Microsoft still hasn't gotten its synchronization/file transfer right, especially for those who use Windows NT. You really need a free serial port on your desktop, one that you can dedicate to H/PC communication. Hopefully these problems will be solved in the next few months with a free update.

A sixth concern is Pocket Outlook. You can always get inbox, outbox, sent files, when connecting to Outlook at your office. However, depending on your Windows CE setup, you may not be able to access or use one or the other of these folders, and you cannot synchronize Pocket Outlook with Outlook Express.

Seventh, the HP 200LX works well for me. I have it well trained and organized and am used to the keyboard and numeric keypad. I also have too much of my business locked in my Palmtop to leave it all behind and start over. Granted, it's possible to convert most of the data to Win CE format but the conversion process is time-consuming and prone to error.

The cost of the Jornada 680, \$895, is the final barrier to switching from a Palmtop to a palmtop-sized, H/PC machine.

Palm-size Jornada 420

The palm-size Jornada 420 is impressive in its own way. Like the other two Jornadas it has a color, backlit display. The voice recorder works well and it has a useable set of dials and buttons on the left side of the machine that lets you navigate through menus and voice recordings. Even so, I prefer a keyboard and longer battery life.


Next issue I hope to examine, in detail, a DOS emulator for the Win CE machines and data transfer strategies between the 200LX and Windows CE machines. ■

HPLX-L maillist — See sidebar Page 32 for signup procedure to become part of this newsgroup.


Commercial products mentioned in this article

HP Jornada 820 H/PC Pro - \$999
HP Jornada 680 H/PC Pro - \$899
HP Jornada 420 Palm-size PC - \$519

Prices from HP's online shopping site, www.hpshopping.com. Also available at Mobile Planet, www.mobileplanet.com. For more information, contact your local HP dealer or Hewlett-Packard Company; Phone (USA): 800-443-1254; Web: www.hp.com/handheld.



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Connecting the Palmtop to MS-DOS and Windows NT 4.0

An HP Engineer shares his experience and Palmtop software as his division moves from DOS to Windows NT.

By Steve Grotheer

I manage a manufacturing test group of 14 people. The HP Palmtop has been my main tool for keeping track of my own activities as well as those of my employees. I've used one or another of the HP Palmtops since the days of the HP 95LX. Although I view myself as a Palmtop power user my wife has her own way of viewing things. She often suggests that I need to find a "Palmtop Anonymous" group to work on my addiction. She's a long-time user of paper organizers and we often have friendly banter over which system is better. I take every opportunity I get to "one-up" the paper systems.

My Desktop Companion

My Palmtop is never far from my side. It wanders the world with me and, when I'm in the office, it's plugged into my desktop PC.

Over the past several years, I've developed some unique ways of using the Palmtop as an extension to my PC. All of these tools I developed were meant to work with Windows 3.1 PCs.

Since my company has recently switched to Windows NT, I have had to develop a different set of tools to work with NT. Perhaps I'll never use the DOS and Win 3.1 procedures again but maybe you will. I'll gladly share my DOS connectivity tools with you and share what I've created for WinNT with the understanding that I have not had as much time to build robust NT tools.

Many Uses for ZIP.COM

Perhaps the most important thing I do when my Palmtop is connected to the DOS machine is to perform incremental backups. I've tried all the connectivity software that's available for the Palmtop and had settled on Eric Meyer's ZIP.COM program. ZIP is small, very fast and can be run as a standalone program on the PC and the Palmtop. However, the thing that makes ZIP.COM ideal for my use is the fact that it can be run from within DOS batch files. When using ZIP I put the Palmtop in server mode and run all ZIP commands from the PC. To make ZIP easier to use, I wrote several DOS batch files to automate frequent tasks. These tools allow me to keep files on my Palmtop where I can always have access to current information when away from my desk, yet allow for easy access from my desktop PC when I am at my desk. Not only do I use the desktop to back up the Palmtop but I also use it to edit, print or mail Palmtop files. Here's a brief description of each of the batch files I have created. They all start with "z" to indicate that they work with ZIP.

ZPR.BAT gets a file from the Palmtop and then prints it from my desktop computer using QEdit.

ZEDIT.BAT copies a file from the Palmtop, edits it using QEdit on the desktop and then saves the modified file back to the Palmtop. This lets me use the faster keyboard and the larger screen of the desktop while preserving the integrity of my file on the Palmtop.

ZBACK.BAT backs up the A and C drives from my Palmtop to the desktop. It copies only those files that have changed. It also reminds me to close applications on the Palmtop before doing the backup. I have a ToDo item in my appointment book that reminds me to run ZBACK once a week.

ZDIR.BAT displays a directory on the Palmtop in case I can't remember where the file I want is located.

ZAPT.BAT was written by Ed Keefe and lets me get the current appointment file from the Palmtop, edit it using the Appointment Book from the HP Connectivity Pack and copy it back to the Palmtop.

In addition to the batch files, I created a C program that will let you build batch subroutines using various formats of the path name or filename of the file on the Palmtop. This program is called BLDZCMD.EXE.

That summarizes the tools I pulled together for DOS or WINDOWS 3.1. Unfortunately, once I upgraded to WinNT, the ZIP program no longer



ABOUT THE AUTHOR

Steve Grotheer is a Manufacturing Test Manager with Hewlett-Packard. He uses his Palmtop for personal and work organization. He can be reached at steve_grotheer@hp.com

worked. It relies on DOS calls and direct hardware access. WinNT will not tolerate that. So I started searching for an NT program that would provide the same script control and flexibility of ZIP.

Columbia University has recently introduced an NT version of Kermit software. Kermit has become much more flexible over the years and now has the capabilities needed for file backup including recursive copy and file date checking. I used K95 for WinNT and MSKermit version 3.16 on the Palmtop.

I've developed a set of Kermit script files analogous to the ZIP batch files I used under Windows 3.1. These are not as robust as the ZIP versions yet, but I'm working to improve them. For NT, I have a KEDIT, KDIR, KPR, KBACK and KGET. All are similar to the ZIP versions. KGET gets a copy of the file and puts it in the temporary directory for use as an email attachment. KBACK.BAT utilizes a Kermit script file called BACKUP.KSC. I also had to update the BLDZCMD. EXE file to accommodate the "/" character required by some Kermit commands.

Kermit

Kermit is infinitely configurable. Getting both Kermits set up optimally took a lot of experimentation.

I found that a baud rate of 57600 was the fastest I could communicate without getting too many errors or timeouts. I first set Kermit95 to fast mode which sets up large packets and optimizes many other Kermit parameters for high-speed communication over clean connections like a direct serial connection. Then I reconfigured some of the options set by the "fast" command so that I minimized errors during transmission. I can't provide a technical explanation as to why these sub-optimal settings are required when connected to the Palmtop but I do know they were necessary to achieve reasonable file transfers.

Kermit has a nice statistics command that I used to measure average transmit rate for sending a combina-

tion of files. I used this tool to determine if my adjustments increased or decreased throughput time.

The first thing I had to do was set windows to 1 or off. Multiple windows allows Kermit to send and receive multiple packets simultaneously to increase average communication speed. When I tried to use the windows option I got too many timeouts. Receive packet size can be anywhere from 100 to 9000 bytes and I chose 4000 so that if an error did occur the retransmit time was optimal. Surprisingly I had to set the transmit packet length to 100 bytes to avoid errors and timeouts. The Palmtop must have a small receive buffer and cannot use larger packets. Kermit also has a mode called "transfer slow" that starts communication of each file with very small packets and gradually gets larger as confidence in the communication increases. I set this to off because this can waste a lot of time when transferring many files at one time. I also set carrier detection off because I am not using a modem. I set "file collision update" which always checks for the existence of the file you are transferring and, if one exists by that name and has an equal or newer creation date, it will not make the transfer. This is very good for efficient backups and prevents accidentally erasing a more current version of a file.

Now that the desktop INI file is established, I created the mscustom.ini file on the Palmtop to match this one. The commands are identical to the desktop version, so I just had to copy the pertinent initializations from the Kermit95custom.ini file.

I chose to use MSKermit 3.16 on the Palmtop because it's the only version of Kermit that will automatically copy directories within directories. The program is still in the beta stage but it seems to work well. I considered using the built-in DataComm program on the HP 200LX. DataComm has a very basic Kermit server mode built in. However, this version of Kermit does not send file attribute information so it was not

possible to do date checking and avoid backing up files that had not changed since the last backup. This is a very important feature on Palmtops with up to 32 MB of RAM disk and very large flash disks.

I have only been using Kermit on my NT system for a short while and thus I have not worked out all the quirks yet. I would also like to hear feedback if you try these tools and have any suggestions for improvement. Here are some things you should be aware of if you use this method.

1) I have not completely figured out the file and path formatting requirements between K95 and MSKermit. It is not as obvious as you might think. For example, I cannot issue a "remote cd a:\bin\tools" command on K95 to change a directory on the Palmtop. I have to do it in three steps: "remote cd a:", "remote cd /" and then "remote cd bin/tools". Note the use of forward versus back slashes.

2) I still get intermittent hangs or timeouts when communicating and have not had time to work these out. But communication works good enough for now.

3) Kermit is a very large and feature rich tool and there may be more elegant ways of doing some of these things that I have not tripped over yet. Unfortunately, I must say that ZIP.COM under windows 3.1 is still faster and more reliable than my WinNT Kermit setup. But they are getting closer.

As you can see, I already have a PC, and traveling, Companion that does everything I need. The most valuable thing about my Palmtop Companion is that I can make it do what I want rather than what some other programmer wants. I can add software and even enhance the software to suit my style of working. If you like the way that I do things, please give my small programs a try and let me know what you think.

In closing, let me mention that MS-DOS Kermit 3.16 is available as copyrighted freeware. However, as of June, 1999, the license prohibits anyone else

from distributing it. You have to get it directly from the Kermit Web site. MS-DOS Kermit 3.16 and Kermit 95 are two programs well worth having in your collection.

My Traveling Companion

I work with people in many countries and travel quite a bit. The WorldTime feature is very valuable for me. Whenever I travel I create a special directory for that trip. In it I store an electronic copy of my travel itinerary, a copy of my expense tracking spreadsheet and any other files I will need on the trip. When I arrive in a new city I start WorldTime, find the city I'm visiting and switch to local time for that city.

In the notes section of WorldTime I include travel hints that my co-workers or I will use when we travel to this location again. I include information about hotels such as phone and fax numbers and facilities they have such as exercise equipment or restaurants. I also include information about local transportation, tolls and directions to businesses, etc. This information is very useful the next time someone travels to that location.

Phone application

As many users have done, I have modified the standard phone database

to meet my specific needs. I use only one PhoneBook file to improve speed. The combination of the category field, subsets and sorting order allows me to view phone book entries for as many groups as needed such as my business, personal, medical and others categories. I have added an email address field, a Christmas list checkbox and changed the address fields to be more internationally friendly.

At Christmas time I use a subset and a smart clip to save all my Christmas card addresses in a comma delimited format. I import this file into MS-Word on my desktop PC and use mailmerge to print custom Christmas card envelopes very quickly.

Appointment Book

Here are a few things that I do with my Appointment Book that I have not seen before. When storing anniversaries I use the following format:

Description: Steve&Vickie anniv
Location : 1990

This way, in the weekly and monthly views I can see "Steve&Vickie". In the daily appointment view. The anniversary year shows up for birthdays and anniversaries.

NoteTaker

To better organize my personal and business information I decided to keep all information about people or businesses in Phonebook. I store information about projects that my staff or I are working on in a database. I use NoteTaker for information about things or processes. I have notes divided into categories for the 200LX, Modems, my PC, Home, and various work topics. One of my NoteTaker files contains 60 notes for political topics. It contains lists of politicians with categories for state and US congress and senate as well as local county and city categories. I keep track of how the politicians vote and how I can get in contact with them. When I want to do a letter writing campaign for my favorite issue I have all the necessary contact data and have information about how they have voted

recently. It is easy to write a form letter, copy addresses into it and reference recent voting practices.

Software Carousel

Due to the larger size of Qedit with its spell checker and the large size of some of the files I edit, I could not run QEdit in DOS and more than one built-in application at any given time. Enter Software Carousel for the Palmtop. This task-swapping program lets me run Qedit in another work area with lots of available memory while having all my built-in applications running in another work area. When I want to switch back and forth, I just swap to the other environment by using Shift F1 or by pressing any of the Blue application keys. It is very quick as long as you put the task swapping file on the C drive and not a stacked A drive. Great application!

ClipVue

Unfortunately, the authors of Software Carousel or Qedit have not developed a way to use the Palmtop clip buffer to transfer information from DOS to the built-in applications, so I use ClipVue written by Gilles Kohl, CIS:100114,3146. With Qedit, I use the ^k^r and ^k^w to read from and write to the clipvue.txt file. I press the ClipVue hotkey to enter ClipVue and either load or save the information I want to transfer.

Buddy

This application is terrific. It does so many useful things and provides many shortcuts to frequent operations. I am sure that most Palmtop users are aware of it by now. I have used it for so long that when I am showing a new Palmtop owner how to use their new toy, I have to think very carefully which features are original Palmtop features and which ones are Buddy features. My favorite features of Buddy are the typing aids such as double click caps and autocaps for new sentences as well as the caps lock for making ALLCAPS words. I also like the file open function keys. ■

Commercial products mentioned in this article

HP Connectivity Pack, and Software Carousel are both available from Thaddeus Computing at www.PalmtopPaper.com

Kermit 95 file transfer program is available at www.columbia.edu/~kermit/k95.html

Shareware/Freeware mentioned in this article

Qedit, shareware text editor from TSE is available on the 1999 CD InfoBase from Thaddeus Computing, Inc.

ZIP.COM (version 2.12) shareware communications program (\$30). ClipVue and Buddy200 are available on the 1999 CD InfoBase from Thaddeus Computing, Inc. as well as at www.PalmtopPaper.com/download.htm.

MS-DOS KERMIT 3.16 Beta This formerly freeware communication program is only available from www.columbia.edu/~kermit/ The most recent license expressly forbids distribution through software collections and other Web sites.

Through the Looking Glass: Doing Windows on the Palmtop

Ed discusses the pros and cons of running Windows 3.0 on the HP Palmtop.

By Ed Keefe

If you've thought about running Microsoft Windows on your Palmtop read this article. It will give you some insights into the problems that you'll encounter.

After you've read the article, you may decide that the problems are not worth solving and you'll save a lot of time and money in the process.

Some Background

In the 1996 book *PC In Your Pocket!*, on page 11, we stated:

"The Palmtop will not normally run Windows. Granted, some users have shoehorned Windows 3.0 onto the Palmtop. They've declared the results of their experimenting as interesting but not very useful."

In the past four years some things have changed for the better. We now have Palmtops that run at twice normal speed and have C: drives with up to 64MB of disk space.

These hardware innovations have encouraged more users to resurrect copies of Windows 3.0 and try running them on their upgraded machines. With the extra memory on their C: drive they found that they didn't have to shoehorn the program into the Palmtop: there was plenty of room. With a double speed Palmtop, they found that much of Windows runs at an acceptable speed.

The hardware may have changed but the consensus of those who have tried Windows on the Palmtop

remains the same. Most of the experimenters agree that Windows on the Palmtop does have a "gee-whiz" value but its usefulness is minimal.

More than a year ago, David Lawrence proposed an article for *The HP Palmtop Paper* on how to install and use Windows 2.03 on the Palmtop. His reason for using Windows 2.03 was to share documents and spreadsheets between his desktop machine and his Palmtop without the hassle of converting the documents from one format to another. Since legal copies of Windows 2.03 were extremely hard to find we put the article on hold.

A later version of Windows (ver 3.0) was more readily available. Several people had copies of the program from recycled PC/AT computers and it seemed that Windows 3.0 might be an alternative to the Palmtop's built-in System Manager. Both programs can do task-switching and the Windows environment might appeal to users who like the way that Windows does things.

To make things easy for first time Windows users, Stephan Peichl wrote

a set of instructions for configuring Windows 3.0 to work on the Palmtop. He also wrote a small program, SLEEP-ON, that configured the Palmtop's screen for Windows operation.

Several users tried Stephan's approach and reported success. They then tried adding other Windows programs to the mix and found that very few, if any, of these programs worked. The usual error message was that the program would not work in Real mode and required the Standard or Enhanced mode of operation. A brief explanation of this terminology is in order.

When Win 3.0 first came to market, the computer industry was in its usual state of flux. Many people still had older PCs with 8088 CPUs. The standard computer, at the time, was a PC/AT with an 80286 CPU. Intel 80386-based computers were relatively new.

The folks at Microsoft tried to accommodate all three markets. They made sure that Windows 3.0 could run on a PC/XT. This mode of operation was called "Real mode." It only required 640K bytes of conventional (real) memory and a mouse.



ABOUT THE AUTHOR

Ed Keefe is an author and editor of *The HP Palmtop Paper* and the book *PC In Your Pocket: Information When You Need It*. Ed is also a former college instructor of logic and computer science and a consultant in the computer industry. Ed can be reached at ed@thaddeus.com

What Others Say About Windows on the Palmtop

When I tried Win 3.0 on the palmtop, I used a Logitech trackball and its DOS mouse driver. This worked fine. I used the HP serial cable and the DB9-DB9 HP adapter to connect to the mouse cable.

I was even able to run SysMgr as an application under Windows. I was not able to do much else but run a screen saver with it because all of the old Windows apps I could find needed Windows to be running in Protected (Standard) Mode.

— Stan Dobrowski [TeamHP] 71031,2162

Running Windows on the Palmtop strikes me as a good idea only for its WinCE appeal. In other words, the idea of Windows 3.0 on a machine the size of a 200lx (1) is cute; (2) has 'gee-whiz' appeal; (3) is, practically speaking, useless; and (4) is likely to distract from useful work. This gives it almost all of the characteristics of the typical WinCE device. Now if you can make it cost a lot, then it will have all of the characteristics of WinCE...

—David Ness DNess@HOME.COM

While running Windoze on the palmtop does have a substantial gee-whiz/ wow factor, I don't see how it could really be useful given the issues of disk space, available RAM, speed, pointing devices, functionality, etc. Although I've done it once, I don't think I'd bother with it again. HP and many of the other developers who have contributed to the palmtop have done such a good job with it that running Win 3 would only be a giant step down. It's do-able on the desktop but a pain in the palm.

—Richard A. Smith rsmith@ENOL.COM

Your efforts to redistribute Windows 3.0 have not gone unnoticed and demonstrate your continued commitment

to the LX platform as a powerful, portable, computing tool. Please allow me to share my experiences with you...

About a year ago I did quite some searching for useful apps (shareware and freeware) able to run in real mode under Windows 3.0 and came up empty. I even had a small but capable group from the HPLX-L news group involved in this project. The apps we found all required standard or enhanced mode Windows, neither being capable on the 100/200LX.

Although Windows 3.0 runs acceptably well on a speed-upgraded machine with a fast disk and a generous helping of EMS for good measure, the only real reason I kept it was for Excel 2.1. Even the early version of Word that runs in real mode (1.x) is slow and didn't prove of very much use to me especially since I had suspected that printing would be a problem (and the print preview was very sloooow and tedious to pan around in). Another compelling reason for Windows was the thought of using a full-blown fax program like WinFax but even the early version I found was nothing short of frustrating since 'printing' to the WinFax driver was the major stumbling block.

Using Windows 3.0 without Excel or Word would leave you with only the bundled software like Write, Terminal, Calculator, etc., all of which are handled better by the Palmtop's built-in apps.

—Ian Melville imelv@TSTT.NET.TT

I have Windows 3.0 loaded on my Palmtop and it is stable and works A-OK, but it's really just a novelty for me. Although I sometimes use WinFax to send a fax, I do so mostly to impress myself. I would be willing to bet that you would sell quite a few copies of it, so I say "go for it."

—Jeff Johns jeffj@SCOTT.NET

The next mode of operation was called "Standard mode" and required an 80286 CPU and extended memory. Finally the 386- "Enhanced mode" required an 80386 CPU.

Since the Palmtop has an 80186 CPU it is limited to the Real mode of operation. This means that, for a Windows-based program to work on the Palmtop it must run under Windows and both programs must fit in 640K bytes of memory.

There were a few programs written for Windows 2.0 that could use this Real mode of operation and Microsoft sold Word for Windows

and Excel, a spreadsheet, that both worked in Real mode. Each program cost \$495.00 at the time. Of the hundreds of other programs designed to run under Win 3.0, only a few were able to run in Real mode.

Before people could raise a cry for more Real mode programs, the PC world had moved to '386 computers and Windows 3.1 had entered the market. Real mode Windows programming was all but abandoned.

It was our hope that we would be able to offer Windows 3.0 along with Word, Excel and several other Real mode programs to the Palmtop com-

munity so that both beginners and old hands could use them.

First Problem: Finding a Legal Copy of Windows 3.0

Before offering Windows 3.0 we needed a source for legal copies of the program.

Hal Goldstein, the publisher of *The HP Palmtop Paper*, took on the challenge of getting Microsoft to revive the Windows 3.0 program and let Thaddeus Computing sell licenses for the program.

For the better part of a year Hal negotiated with the marketing and

legal departments in Redmond, WA. All too often he found himself dealing with people who had never heard of the HP 200LX. He had to explain again and again why we wanted to use Win 3.0 and not Win 95/98.

In the end, Microsoft agreed to let Thaddeus Computing sell a limited version of the product. The catch was that we would have to write our own Users' Manual since the Microsoft manual was a separate product and could not be duplicated.

Hal also asked Microsoft for permission to sell the Real mode versions of Word and Excel. Microsoft had a one-word response to that request: "No!"

At this point, no one at Thaddeus Computing had a legal copy of Windows 3.0. That's when fate stepped in. Hal and I found two shrink-wrapped copies of Win 3.0 in a curio-shop in Fairfield, Iowa. The total cost for both copies: \$10.00!

Was this "too good to be true?" Yes. It took us the better part of an afternoon to convert the software from five 5.25-inch disks to 3.5-inch disks and test the integrity of all the files. Now that we had legal copies of the software we were ready for the next challenge.

Second Problem: Mouse or No Mouse

Some people claim that you can use Windows 3.0 without a mouse. I maintain that without a mouse, you'll have an experience akin to driving a car without a steering wheel. You'll get just so far before you have to stop. I had to decide on what pointing device to use and how to get it to work on the Palmtop. My choices were a standard mouse, a trackball device or a touch pad. A mouse would work but needed a flat surface. A trackball would also work but they were hard to come by. After a couple weeks of experimenting, I settled on a Cirque Easy Cat touch pad. The touch pad is stationary and requires little room on a desktop or car seat. It doesn't need a flat surface

and it's available for a nominal cost through most mail-order catalogs. The Cirque Easy Cat does not come with any mouse software so I tried various mouse drivers to get it to work on the Palmtop. Only later did I discover that the touch pad worked fine using the Windows built-in mouse driver.

Third Problem: Installation Woes

Once I had the touch pad working, it was time to install Windows.

I tried installing the program according to the instructions from Stefan Peichl and David Lawrence. Sad to say, their directions did not apply to the version of Windows that we had. Their directions mentioned using an EXPAND program that was nowhere to be found. Our version insisted on using the SETUP program so that it could detect the type of screen and how much memory was available.

I tried installing Win 3.0 on a desktop computer on the assumption that

I could transfer a pre-installed version to the Palmtop. I was wrong. Installing the program on a desktop computer and transferring the files to the Palmtop resulted in an error message that said in effect "this is not an original installation of Windows." The program would go no further.

It was best to let the SETUP program have its way. This meant freeing up 6 M bytes on both the C: and A: drives of my Palmtop, copying all the files from the five installation disks to the A: drive on the Palmtop and running the SETUP program from there.

This approach worked smoothly and resulted in a C:\WIN directory containing about 170 files consuming approximately 4.5M bytes of disk space on the C: drive. To reduce the number of files, I started renaming one file at a time and restarting Windows. If Windows ran, I deleted the file. That was another mistake. Windows might start but it would often die when I tried to run one of

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the built-in applications. I reinstalled Windows again and adopted the motto "if it works, don't fix it."

Fourth Problem: Memory Considerations

To give Windows as much room as possible, I set it up to run in a separate Software Carousel session.

Others Windows users who do not have Software Carousel use MAX-DOS or use the [MORE, MENU, Applications, Terminate all...] command to get the maximum amount of memory for Windows.

Actually, using MAXDOS or quitting System Manager might be a better way to run Windows. My reason for choosing to use a SC session was to let me switch between a System Manager session and the Windows session without losing my place in either session. However, when I switched to the System Manager session and then back to the Windows session, the touch pad no longer worked. I had to shut Windows down and restart it to get the touch pad working again. This practice sometimes caused Windows to lock up the machine with the error message "wrong DOS version. MS-DOS 3.1 or better required." Since the Palmtop uses MS-DOS 5.0, this error message made no sense. Perhaps Windows only sees the COMMAND.COM stub program in the D:\DOS directory and gets confused. Who knows?

I also noticed that when I opened a DOS box in Windows the screen "colors" would be reversed and would stay that way when the DOS box was closed. If I tried to run a DOS program, e.g. PalEdit, from within Windows, and then quit the program, I would get the error message that I was using the wrong DOS version and the Palmtop would lock up.

Further Problems

As long as I didn't try switching from one SC session to another, I could put the built-in applications through their paces. The Paint Brush program worked well but it was difficult to

determine what all the tiny tool-icons represented. The calculator functioned just like the calculator in every version of Windows I've used. The File Manager proved to be a real challenge. To copy a file from one disk to another I had to open four windows on the screen and move the cursor from one to the other without disturbing any of the underlying windows.

The Write word processor turned out to be less than ideal. Even on a double speed machine, typing was agonizingly slow. After every keypress the whole paragraph would redraw itself, letter by letter, on the screen.

To make Windows a worthwhile product, we proposed bundling as many shareware and freeware programs as possible with the Windows program. To expedite the search for more applications, I found a book/disk called Windows Gizmos that contained over fifty different games, utilities, text editors, data bases and financial managers purportedly designed for Windows 3.0. I anticipated that 50 programs would make up for the inability to offer the Word and Excel programs. Perhaps one or more of these programs would turn out to be a "killer app."

Sad to say only three of the fifty programs worked in Real mode. The rest required Standard mode or better and many required an EGA or VGA screen.

We searched the Internet far and wide for Real mode programs but came up empty handed.

Conclusions

We originally thought that the goal of turning Windows 3.0 into a turnkey program for the Palmtop would be a worthwhile project. We hoped that Win 3.0 would be useful especially to new users who could start with a familiar operating environment while learning the nuances of System Manager and MS-DOS on the Palmtop.

However, it appears that Windows 3.0 is a tool for power user's rather than beginners. Getting the hardware and software properly configured is

a challenge worthy of any software experimenter. The sense of accomplishment may be reward enough. Windows is definitely not something I would give to a person who is new to the Palmtop or to MS-DOS.

To confirm our belief that Windows is not a good product for the Palmtop, we posed a question on CompuServe and in the HPLX-L news list. We asked for the opinions of those who had used Windows on the Palmtop. We've included their replies in the sidebar for this article.

On the basis of our experience, the opinion of many Palmtop users, and the simple economics of the situation, Thaddeus Computing has decided not to pursue the development of a Windows 3.0 product.

If you want to explore Windows on your own and do not already have a copy of Win 3.0, look on several of the World Wide Web auction sites for copies of Windows 3.0, Word for Windows 2.0 and Excel 2.0. I have a hunch that the cost of all three programs will be far less than the cost we would have had to charge for a commercial product. ■

Commercial products mentioned in this article

Cirque Easy Cat touchpad (\$31) available from www.cirque.com and from many computer retailers.

Windows Gizmos by Brian and Margie Livingston, IDG Books Worldwide, Inc., 1983. No longer in print.

... QUICK TIPS ...

All Quick Tips are by Ed Keefe unless otherwise noted.

General

Set Screen Contrast Manually

The LCD screens in many HP Palmtops show a variation in the contrast levels. This may be due to the variation in the transistors, resistors, and other hardware that go to make the display.

The HP Palmtop lets you adjust the contrast in System Manager through the Setup (CTRL+Filer) program. In that application simply press MENU, Options, System, OK and Tab to get to the Contrast Slider. Use the right or left arrow keys to adjust the contrast to a level that seems best for you and press Enter to get back to the main screen.

You can also adjust the contrast with the [ON][+] and [ON][-] keys. This keyboard method of setting the contrast level is useful if you are running Software Carousel. The contrast setting in System Manager only effects the main SC session. In the other SC work areas you can set the contrast from the keyboard. The setting will stay in effect until you reboot the machine.

Use CONTRAST in AUTO EXEC.BAT

If you want to have the same contrast setting in all your different SC sessions without the hassle of pressing [ON][+] or [ON][-] repeatedly you can use a small program called CONTRAST.COM. The program will set the screen's contrast level to a specific value.

For example, if you are running Software Carousel, you could run CONTRAST 22 in one session and CONTRAST 16 in another session. However the most common way to use this command is to put the statement CONTRAST 22 in your Autoexec.bat file and reset the Palmtop. The command will set the contrast level for all sessions of Software Carousel.

The number after the CONTRAST word is a value that you determine for yourself. Just set the contrast level in System Manager's Setup and then press CTRL+123 to get to the DOS prompt. Type CONTRAST at the DOS prompt and press Enter. The program will tell you the contrast value to use.

DOS

Games

Mike Wagstaff, has made available a Web site for those who want to collect more games for their Palmtop. The "HP LX Fun! Factory" can be found at <http://dSPACE.dial.pipex.com/town/plaza/aj93/waggy/hp/>

The page contains links to the following games:

Anti-Ballistic Missile, Blockade, Bowling Champ, Commander Keen 4, Electrobody, Galactic Battle, Jill of the Jungle, Off Road, PC Darts, Rush Hour, Spacewar, Striker, Tetlix, and Xonix.

If you're interested in adding these games to your collection, now is the time to do so. The links to the sites may not be maintained indefinitely.

As disk space permits, we plan to put one or more of these games on future issues of *The HP Palmtop Paper ON DISK* for those who do not have access to the World Wide Web.

Database

Some Tips on Exporting and Importing Data from the Built-in Database Applications

If you use the note field in Phonebook, Database, NoteTaker or the Appointment Book applications to write more than a few lines of text you may want to break the lines into readable chunks by pressing the [ENTER] key to create paragraphs. If you do this and then decide to export the information to another application you'll have to do some additional processing.

The HP Connectivity Pack exports note fields that contain carriage returns with a tab character substitution. So if you want to use these files in another application, you need to use a word-processor to convert these to carriage return/linefeed pairs.

SmartClip adds its own carriage return/linefeed every 60 or so characters, creating a situation that is fairly difficult to correct even with a word processor.

GDBdump substitutes \n for imbedded carriage return/linefeeds and a word-processor is again required if you wish to retain the paragraph structure of the original file.

Using Word for Windows on a desktop computer, along with the text exported by the Connectivity Pack I have been able to solve my export needs for the phone book, database and notepad and my import needs for NoteTaker.

If all you need to transfer is text, categories, numbers and notes, then the connectivity pack or GDBdump plus a word processor should work just fine.

If you do not need note fields with imbedded carriage returns, then SmartClip is the easiest way to export ASCII text.

If you need to transfer check box information use any technique except the SmartClip feature: it won't work.

If you need "/" delimited dates from your appointment book you are probably best off with SmartClip or ADBIO.

If you need am/pm time format in addition to "/" date delimiters you are mostly out of luck except for exporting with SmartClip. Microsoft Access and Excel allow you to specify the format of date imports and you should be able to manipulate the information for transfer to another piece of software, if desired.

If your note fields are less than about 512 characters, Excel might work fine.

If you can live with shorter note fields, you could process most of these delimited files using the built-in 123 spreadsheet and calculating date and time values for

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output to another program. This, however, requires a moderate degree of sophistication in the use of 123 functions.

How To Set Up an EXP Modem

To make an EXP modem/flash card work concurrently with other flash cards follow these simple rules:

- Place any drivers that need to be loaded during start up on your C: drive and NOT on a removable A: drive. There has to be enough space to do so because you can't put ALL drivers on ALL cards in the same directory.
- Load the EXP card driver LXM-DRV.SYS on start up even if there is no card or another flash card in the slot. This prepares your system to accept the EXP card when needed.
- Avoid any reference to the A: drive in your startup files CONFIG.SYS and AUTOEXEC.BAT. Remove the lines SUBST E: A:\ or PATH=A: or DEVICE=A:\LXMDRV.SYS or similar commands from both files. That will avoid the error message "drive does not exist" or similar annoying messages during start up and makes your system "ready for all".
- Get a copy of DOS-5 SUBST command (if you don't have it yet) to close the "gap" in the drive letter chain.
- In AUTOEXEC.BAT add the line SUBST E: D:\.

LXMDRV.SYS, by default, assigns drive F: (or G: in case of a 32 or 64MB palmtop) to the flash memory part of the card and leaves the drive letter E: unassigned.

Closing the gap avoids the error message "drive not ready" because any request to E: drive is redirected to the D: drive, a drive which does exist as long as your palmtop is alive. (The usually recommended SUBST E: A:\ will break if no card is in the slot!)

If all drivers and TSRs are loaded from C: drive you have to reboot your system once. From now on you can swap your cards without rebooting. But don't forget to turn off your HP before swapping cards, at least while inserting a new card!

This solution to the problem with the EXP flash/modem card is really a group effort. Avi Meshar, Andreas Garzotto, Alexander Gutfeldt, Steffen Demuth, Daniel Legendre, Tom Rundel, David H. Fisher and a lot of others from HPHAND forum did most of the work. My part has been to put some order to the solution so that it could be understood<g>.

Gottfried Burckhardt

A Doctor's Rx: Dr. Max Maizels has a unique way to use Software Carousel

The doctor has categorized his daily activities into Business, Home and Avocations. He maintains Databases, Phone Books and NoteTaker files for EACH of these categories.

To make it easy to switch from one set of files to the other he created three different Software Carousel sessions, all of which run System Manager. In each SC session he loads and runs the appropriate Database, NoteTaker and Phone Book files.

The technique of opening multiple database applications in several SC sessions is potentially dangerous. But the latest version of Software Carousel, v.7.07, prevents this from happening. Doctor Maizels uses a combination of Addkeys and Key200 along with special SC startup scripts to perform his magic. Needless to say a good backup system is the first prerequisite to such a practice.

Rather than print his semi-secret prescription and risk the wrath of someone who loses a PhoneBook or Database file we've chosen to keep the prescription in its original electronic form.

If you use Software Carousel and this sounds like something you'd like to try, look for the file called MAIZELS.ZIP on this issue of *The HP Palmtop Paper ON DISK*. The file will also be available on the S.U.P.E.R. site on the WWW. (Go to www.PalmtopPaper.com/download/htm and put MAIZELS in the search field and click the Fetch button. Download the file and unzip it to your disk. You'll be able to read the prescription written by the doctor. Trust me, it is a rare work of computing art that will take hours of study and experimentation to appreciate.

I've studied the prescription but, on the advice of my doctor, have not implemented it. I don't want a reoccurrence of my obsessive-compulsive disorder.

DOS

EXMBATCH Revisited

We mentioned EXMBATCH in the last Quick Tips columns. Since then several users have asked that we explain what the program actually does. Here's a more detailed review of this product.

In the days of the HP 95LX, users of the UTIL Forth programming language figured out how to create "loader" programs on-the-fly. Loaders were small System

Manager compliant programs that could be added to an APNAME.LST file. The purpose of the loader was twofold: 1) it would make it possible to assign a hot key to the loader program and 2) have the loader program run a DOS program. For example, if you used the VDE editor, you could create a VDE.EXM loader program to which you could assign a hotkey, say ALT+V. Then you could run VDE.EXE simply by pressing ALT+V.

EXMBATCH is basically a generic loader program for the HP 200LX. Instead of using Forth to create a loader on the fly, you use DEBUG to modify the EXMBATCH.EXM file and then rename the file to whatever you want. Then you can install the modified loader in Application Manager and give it a hot key.

EXMBATCH will let you create loaders for any .COM, .BAT or .EXE program. The loaders can also be set up to specify how much memory to give to a DOS program and whether or not you'll need to press the Enter key to return to System Manager when the program ends.

Rod Whitby, the author of EXMBATCH, created the generic loader and wrote a set of instructions describing how to use DEBUG to tailor the loader for each DOS program you want. Rod is also thinking of creating a program that will create specific loaders as needed without the use of DEBUG. A word of encouragement from satisfied users of EXMBATCH would probably tip the scales in favor of this extra program.

EXMBATCH version 1.5 is available on the previous issue of *The HP Palmtop Paper ON DISK*. The latest version of the program may always be obtained from <http://exmbatch.hplx.net/> (or www.hplx.net/exmbatch/ for WWW/LX users.) ■

Shareware/Freeware mentioned in this article

CONTRAST.ZIP and **MAIZELS.ZIP** are available on this issue of *The HP Palmtop Paper ON DISK* as well as from www.palmtop.net

EXMBATCH.ZIP is available on the previous issue of *The HP Palmtop Paper ON DISK* as well as from www.palmtop.net

GDBdump and ADBIO are available on the 1999 CD InfoBase from Thaddeus Computing.

• • • BASIC TIPS • • •

Unless otherwise noted, the Basic Tips are by Ed Keefe.

Lotus

Break the Six Range Limit in 1-2-3 Graphs

With the Lotus 1-2-3 Graph command you can specify which set of values to use for the X-axis and up to six different sets of values for the Y-axis.

There may be an occasion when you would like to have more than six values displayed on the graph at the same time. Here's how to do this for graphs of the x-y type.

1) Set up a spreadsheet as usual for the X-axis and for up to the six data ranges (A - F) for the Y-axis. In Screen 1 the columns A-F will become the Y-axis values and the G column will become the X-axis values.

2) Copy the X-axis values into the same column below the first set of X-axis values. Leave one blank row between the two sets.

3) Construct up to six additional ranges, using the same columns as previously defined for ranges A - F but, again, leave a blank cell between the sets of values.

4) Repeat steps 2 and 3 if you want 18 ranges instead of 12.

5) Tell the Graph program that you want to plot an X-Y graph and identify your ranges as extending from the first row of the first set to the last row of the last set.

For example, in the spreadsheet above,

the X-axis values are in cells G1..G11. The A-F values are in cells A1..A11 through F11..F11.

Be sure to leave the blank cells between the different data sets or else you'll get stray lines connecting the first and seventh series, the second and eighth and so on.

When you're ready, view the graph by pressing the F10 key or by choosing the View command in the 1-2-3 Graph menu.

You should see a graph like the one in Screen 2 in which there are twelve different lines on the chart.

The technique can be extended to handle as many "pseudo ranges" as you like. However, on the Palmtop, the screen resolution is such that too many lines produce a blur.

System Macros

Enhance System Macros with Pushkeys

In the Mar/Apr 1994 issue of *The HP Palmtop Paper*, we printed an article that described how to find and use the built-in, hidden PUSHKEYS TSR program that plays back ALL the macro commands in a macro file.

Here is the summary of the article.

How to Find Pushkeys

Pushkeys is a hidden program in the D:\BIN directory of the HP Palmtop. You can't see the file name using Filer. However you can go to the DOS prompt (use FILER MENU, Options, DOS and at the DOS prompt, type D:\DOS\ATTRIB D:\BIN*. * and press Enter. You should see the reply: D:\BIN\PUSHKEYS.COM

How to Use Pushkeys

To install Pushkeys use MORE, MENU, Applications, Terminate All... At the DOS prompt type D:\BIN\PUSHKEYS /I and press Enter. Type 100 or 200 to restart System Manager.

To create a macro file for use with Pushkeys, open the System Macro application (CTRL+MORE) and use the MENU, File, Save As... command to save any current macros as CURRENT.MAC. Then use the MENU, File, New command to start a new set of macros. Type a macro into the first macro's Contents field. Here is a sample:

```
{Enter}{More}{Menu}AT{Enter}DIR
D:\S/B>C:\DIR_D.TXT{Enter}#1000
#200{Enter}{Memo}{Menu}FOC:\DIR_D.T
XT{Enter}
```

The above macro will terminate all Applications (be careful that Lotus is closed before using this macro) and create a list of the files on the D: drive and store it in a file called DIR_D.TXT. Then the macro restarts System Manager and opens the DIR_D.TXT file in Memo.

Use the MENU, File, Save As... command to save the file as PK.MAC in the C:_DAT directory.

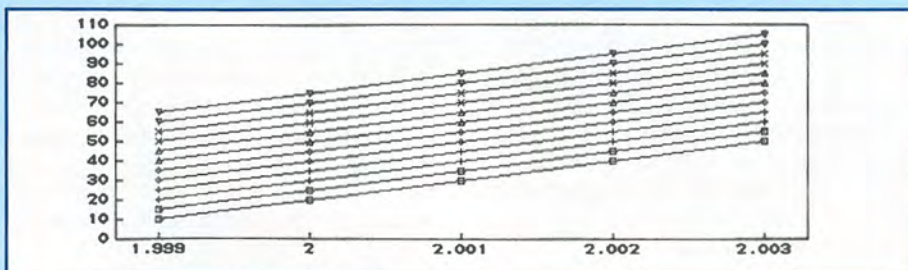
Create a batch file that contains the line D:\BIN\PUSHKEYS C:_DAT\PK.MAC and save this file as C:_DAT\TESTPK.BAT.

To run the program, start FILER and point at the TESTPK.BAT file and press Enter. The batch file will load and run the PK.MAC file. After a slight delay, you'll see System Manager start and you'll see a list of filenames in Memo.

In the case of Pushkeys, System Macros MAY contain commands to exit System Manager and run DOS commands and then return to System Manager. (This is something you can't do with an ordinary System Macro.) Also in

A1: (G) [W6] 10									
	A	B	C	D	E	F	G	H	
1	10	20	30	40	50	60	1999		
2	20	30	40	50	60	70	2000		
3	30	40	50	60	70	80	2001		
4	40	50	60	70	80	90	2002		
5	50	60	70	80	90	100	2003		
6									
7	15	25	35	45	55	65	1999		
8	25	35	45	55	65	75	2000		
9	35	45	55	65	75	85	2001		
10	45	55	65	75	85	95	2002		
11	55	65	75	85	95	105	2003		

Screen 1: A Spreadsheet with 12 different graph ranges



Screen 2: An X-Y type graph with 12 different values for the Y axis

the special case of Pushkeys macros, you can have macros with up to 2,550 characters. Each of the 10 macros in a macro file can hold up to 255 characters. Pushkeys automatically goes from one macro to the next. You don't need to use the CHAIN command.

Pushkeys macros may contain another unique command, #xxx#. For instance in the sample macro I used #1000# which delayed the execution at that point in the macro by about a second or two. This is a totally undocumented command that is only used by the Pushkeys program. It seems to work only once per execution and you may need to experiment with the delay number to see what it does on your machine.

CALC

Don't Do This in HP Calc

If you press the Date or Time keys in HP Calc, the Palmtop will beep at you and display some strange numbers on the Calc line. In Calc, use the MENU Clear Stack command and press the Date key, the Palmtop will flash some numbers and end up with a number such as 99 on the calc line. This number is the last two digits of the current year. The Y register will contain the value for the day of the month. When you press the Time key you'll wind up with a value such as 913 which is hour and minutes, i.e., 9:13AM.

This is a bug that was present in HP Calc from its earliest days. HP Calc should prevent the Date and Time keys from functioning at all. Instead, when you press those keys, System Manager tries to put a date/time number on the calc line. The calculator tries to format the number according to its own formatting options.

When the bug was first reported on the HPHand forum on CompuServe, the response from an HP representative was that this was one of those bugs that could be fixed by the user. The command to use is "Don't do that!"

To complete the picture, the Date Calc application in HP Calc uses a special format for dates, namely DD.MMYYYY. For example May 10, 1999 would be keyed in as 10.051999.

And, just in case you were wondering, the date calculations in HP Calc are Y2K compliant.

Conversion Values in HP Calc

The conversion routines in HP Calc

(CALC, MENU, Applications, Conversions) will let you convert between Currency, Length, Area, Volume, Mass and Temperature. You simply key in a value, press the appropriate function key and all the other values appear on the screen. I've looked at several different conversion programs and I still prefer the HP Calc program. It requires the fewest number of keystrokes to get an answer.

On the other hand, HP Calc won't let you convert values from miles/hour to feet/second. You can use HP Solver for this type of conversion. For instance key the following formula into an empty Solver editor field and press F10 and then F9 to run the equation. $FEET/SEC = (5280/3600) * MILES/HR$

Enter 60 and press F3. Then press F2 and you should see $FEET/SEC = 88.0000$.

Note that, in this case, the conversion factor (5280/3600) is actually a constant value. This means that you can also use the Conversion function to find the answer.

The only conversion routine that allows for additional entries is the Currency converter. However, before making any changes to the built-in Currency conversions, close HP CALC. Open FILER and go to C:_DAT and copy the CALC.ENV file to CALCENV.BAK. Otherwise, once you key in a new set of conversions and close HP CALC, you'll lose the currency conversions.

Return to HP Calc and open the Currency Converter. The Currency Conversion sub-application can hold up to 21 possible conversions. Press the More (F10) key a couple of times until you see a screen that is only partially full of entries. Press the F2 (Edit) key and move the highlighter to the first empty line. Press the F2 (Name) key and type in MPH and press Enter. Enter the rate, 1, and press Enter. Move the highlight to the next blank line and press F2 (Name). Type FPS and press Enter and type in the rate, 1.466667, and press Enter. Press (ESC). In the Currency conversion screen, key in 60 and press the MPH function key. The FPS line will immediately show 88.0000.

If the conversion factor is a constant then you can use the Currency converter to do the conversions. However if the conversion involves a formula or expression then you need to use Solver.

To restore the original currency conversions, close HP CALC and run a simple batch file called SWAPCONV.BAT that you can create in MEMO.

```
REM SWAPCONV.BAT
@echo off
```

```
ren calc.env xxx
ren calcenv.bak calc.env
ren xxx calcenv.bak
```

Do not run SWAPCONV.BAT while HP CALC is open.

Memo

Use Memo to Announce Upcoming Appointments and ToDo's

Appointment Book can't warn you more than 24 hours in advance of a future appointment or event. It would be more helpful if it could warn you a week in advance of upcoming birthdays. That would give you more time to purchase a gift and send it.

It's possible to correct this shortcoming by using the Appointment Book print option to print all appointments and events within a range of dates to a text file. This text file can then be opened in Memo to give an instant view of what is coming up soon.

This can be automated by using a simple macro to generate the file and load Memo to display it. This will make the feature a single keystroke away. To further automate the process the macro could be set to run automatically at night so that when the Palmtop is turned on in the morning, your next few days of appointments and events are on screen.

Here is a System Macro that will give a one week look-ahead.

```
{Menu}fp{Alt+H}{Tab}{Home}a{Tab}{Tab}
++++++{Alt+L}{Alt+F}{Alt+O}1{Alt+T}{F1
O}c:\todo\event.txt{F10}{Memo}{Menu}foc:\
todo\event.txt{Enter}
```

Laurence Harvey
laurence@harvey-l.freeserve.co.uk

Create Headers And Footers In Memo Documents

You can create simple headers and footers in Memo documents. Open MEMO and press (MEMO) Forma(t) Header/Footer. You are presented with a dialogue box with the cursor resting on the Header line.

Type in your header and press (<Tab>) to move to the Footer line. Type in your footer and press (ENTER) to return to the main MEMO screen. You will not see the headers or footers on the screen, but they will be there if you print the document out.

New Products

continued from Page 6

The ccLXPOP (clicks-pop) program by Brian McIlvaine will let you use cc:Mail as the email reader and composer and then connect to a POP3 email server when you want to send and receive messages. ccLXPOP makes use of the LXTCP utilities written by Rod Whitby and has the following capabilities:

1. It can send and receive email using ccMail as the means to view and generate email. You can access multiple email accounts for receipt of email.

2. It can be used to read newsgroups. You can download newsgroups and then index that mail in ccMail into a separate folder where your email goes. This indexing is done off line.

3. ccLXPOP can be used on a desktop or laptop computer as well as on the Palmtop.

4. The address book and address list functions work cleanly and efficiently. ■

Shareware/Freeware mentioned in this article

OLC2LXinst.EXE - available directly from members.aol.com/freewhl44/lxgames.html.

Also available on this issue of *The HP Palmtop Paper ON DISK* as well as at www.palmtop.net

OL2LX_02.ZIP is available on this issue of *The HP Palmtop Paper ON DISK* as well as at www.palmtop.net. It is available directly from www.tuug.org/~hysky

PALRUN.ZIP, **VDE187a.ZIP** and **CCCLXPOP.ZIP** available on this issue of *The HP Palmtop Paper ON DISK* as well as at www.palmtop.net

TOD021.ZIP is available on this issue of *The HP Palmtop Paper ON DISK* as well as at www.palmtop.net and directly from hp.vector.co.jp/authors/VA014919/soft/todo.htm

X-Finder

continued from Page 10

The Icon Viewer/Manager

The file manager also acts as an icon viewer when the iconized listing is selected. This makes it simple to add icons to the ICON.LZH and ICONFLD.LZH files used by XF. Just browse through the icons, mark the ones you like, and press [Shift][Enter] for ICON.LZH or [Ctrl][Enter] for ICONFLD.LZH. Icons are automatically added to the .lzh archives in uncompressed form. You may need to rename the icon(s) in your .lzh file, but this is done transparently, just like renaming a file in a directory.

Remote Links

Using the remote link feature of XF requires the installation of a small program (XFS.EXE) on the remote machine. This works with IBM compatible Windows or DOS computers (including palmtops). The palmtop (client) and the server are linked using the connectivity cable. Starting XFS on the remote machine and selecting a remote drive in XF will show the remote drive in the XF file manager screen. Drives and directories on the remote machine are handled just like local drives and directories. This is very similar to using Filer to transfer files between a palmtop and the HP Connectivity Pack on a desktop computer. You can even run programs on the Palmtop using commands from the remote computer.

To transfer files between palmtops using XF you'll need a cable. XF/XFS doesn't have IR capability.

Summary

X-Finder offers incredible power and versatility for managing applications, files, and archives. It's easy to install but not particularly intuitive to customize. Because so many aspects of XF are configurable, there's a lot to learn and master. ■

Commercial products mentioned in this article

MAXDOS.ZIP, **ICONEDIT**, **MOREEXM**, **LHA255.EXE**, **CLOSEFLR**, **UNZIP.COM**, **LIST.EXE**, **VIEW.ZIP** are all available on the 1999 CD InfoBase, previous issues of the *The HP Palmtop Paper ON DISK* as well as at www.palmtop.net.

XICONS.ZIP, **XFMACICN.ZIP**, **XFS.ZIP**, **XFP3.ZIP** and **VDE187a.ZIP** available on this issue of *The HP Palmtop Paper ON DISK* as well as at www.palmtop.net.

LHE102.LZH is a very fast .LZH file extractor and is only available at: www.vector.co.jp/common/dos/util/arc/lha/lhe102.lzh

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PAWXFIC2.LZH and **PAWXFPLS.LZH** are available at: member.nifty.ne.jp/paw00/

Letters

continued from Page 2

Like you, I long for the heydays of *The HP Palmtop Paper*, when advertisers and authors vied for space in each issue. Back then folks were always describing new and interesting ways to put the Palmtop to work.

Like you I've noticed the thinness of the past several issues (That may be due to the lack of advertising).

I know that the quantity of material in PTP is approximately the same as before. In the past four issues I've tried to increase the technical quality of the articles, pushing the built-in apps to their limits and discussing the more popular add-in applications. ■

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Software on The HP Palmtop Paper ON DISK

July/August 1999

You can find all the software described in this issue at www.palmtop.net/super.html which is now sponsored by our Web site www.PalmtopPaper.com.

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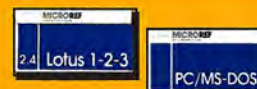
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