



# Go to work on a Jornada

Mark Whitehorn enjoys **HP's new 680**, and an upgrade helps him appreciate Pocket Access.

**W**hy do I love PDAs so much? I'm sitting on a slow train to London and have with me a laptop and a PDA. Naturally, I'm writing this on the smaller of the two brains, but it wasn't even a conscious choice: both are available but I automatically pulled out the PDA.

Trying to analyse this, I think it was probably the immediacy that tipped the balance; I could extract the PDA and be writing within ten seconds. The laptop, which runs Windows NT, takes perhaps two minutes to boot — and three percent of its battery life as well. Of course, when I get to London I'll be using the laptop as a database server, a function the PDA can't provide, but my choice shows that I rate startup speed over keyboard size.

**The PDA in question** was Hewlett-Packard's new Jornada 680, the replacement for the 620. This is a smaller and much improved version, with twice the memory at 16Mb, a 125MHz processor, a built-in modem and, according to HP, twice the battery life. Keyboards are always a matter of personal taste, but I prefer the new one, as it requires less effort to drive.

The only downside is the screen, which is slightly smaller and less readable than before. This seems to be because it has a transparent plastic shield, or covering, which is supposed to improve readability when outdoors. In fact, it reflects more light and it depresses inwards when the touch-sensitive screen is used, which, of course, draws your attention to the reflections because they bow inwards towards the point of contact.

The 680 has some interesting software built in. I suspect natural selection will drive PDAs to a closer physical similarity; after all, the same has

happened to PCs. Remember all those delightfully different machines from the early days — the Apricot F1s, the original

Compaqs, the early Amstrads? They've all become subsumed into the beige porridge that now constitutes the standard PC. So, if hardware isn't the differentiator, it has to be the software.

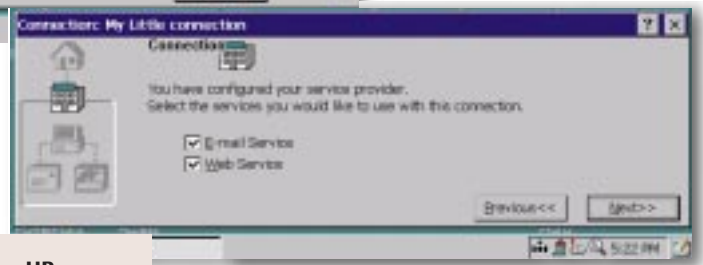
One to note is **HP Dialup**, designed to make connecting to the internet easier. In the July issue of *PCW* I looked at how to perform this process manually. It's perfectly possible, if a little Byzantine, because of the different places that Windows CE requires you to place the information. HP Dialup asks you for the info, and then puts it in the right place for you. It's a great idea.

Another of note is a, ahem, note taker, the **HP Quick Pad**. Notes have a title, on the left of the screen, and a

content, on the right. Simple, yet effective. Trust me, I know what I'm talking about; I got this wrong last time, when the Psion 3c arrived. It had a similar feature, the Jotter, about which I spoke harshly. I said it was a spare part because the same functionality was provided by the Word



▲ USING HP DIALUP

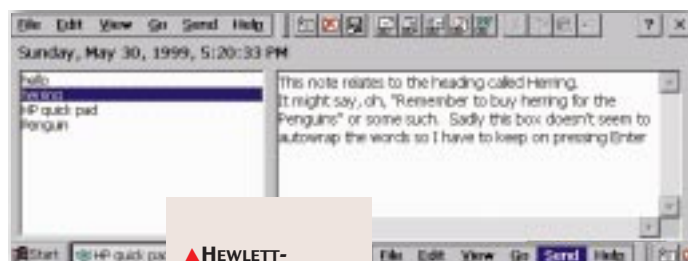


application and all you had to do was apply a little organisation. The only problem was that three months later, I was an avid Jotter user. You can use Word to hold notes, but the organisation required meant that I never did in practice. The Jotter tipped the balance, making it easy enough for me to bother to keep notes on the Psion.

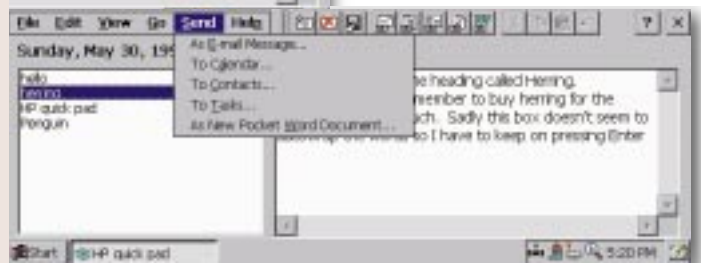
## ◀ Programming on the Psion

We've been looking at programming with OPL and I'm tempted to leave the subject, now that we've got as far as developing reasonably error-trapped applications. If you disagree, let me know and we can do some more.

In the meantime, if you want to know more about programming, try Steve Litchfield's website at [3lib.ukonline.co.uk/programm.htm](http://3lib.ukonline.co.uk/programm.htm). You could also look at [www.cracker.com](http://www.cracker.com).



▲ HEWLETT-PACKARD'S NOTE-TAKING SOFTWARE IS FUN  
▶ AND YOU CAN SEND NOTES JUST ABOUT ANYWHERE...



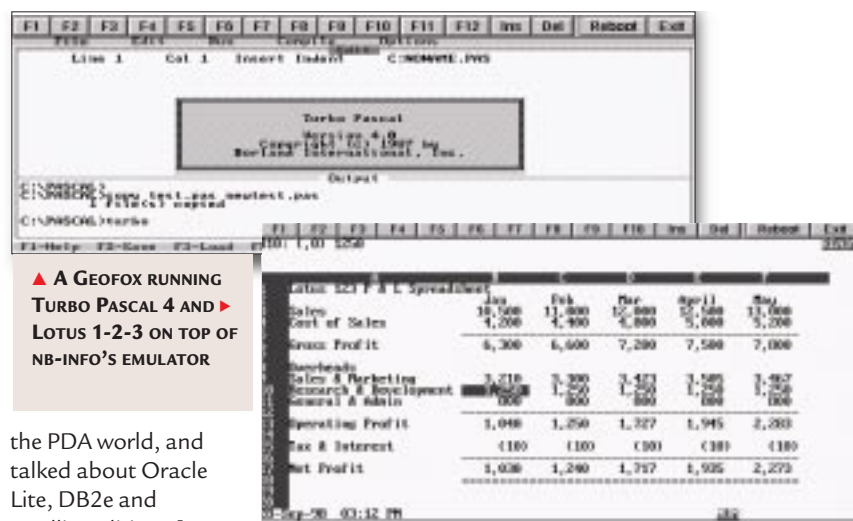
[u-net.com](http://u-net.com) which has programs and programming tutorials.

In addition, the diehard OPL programmer will be delighted to know that a company called Neuron is developing a number of dialogue OPXs to bring the diverse controls currently only available to C++ developers within the reach of those who use OPL32.

Those who want to spice up their OPL apps are directed to [www.neuron.com](http://www.neuron.com).

## When is a Psion not a Psion?

When it's running a PC Emulator, of course. A company called nb-info has created an emulator of the XT which enables a device using Epoc32 to run all those old DOS programs you have sitting



▲ A GEOFOX RUNNING TURBO PASCAL 4 AND LOTUS 1-2-3 ON TOP OF NB-INFO'S EMULATOR

the PDA world, and talked about Oracle Lite, DB2e and satellite editions [see

also this month's Hands On Database column, page 224].

A glaring omission has been SQL Server Somewhere. Why haven't I written about it? Well, mainly because

Microsoft hasn't invented it yet. The big M has been very quiet about databases on PDAs, so when I met

Marina Stedman, Microsoft's new SQL Server product manager, I asked her whether an

equivalent product was on the way for SQL Server.

She said Microsoft has no specific comment to make on this subject at present. I take that to mean that someone, somewhere in Microsoft is working flat out on an equivalent, but that it's some way from appearing, even in

beta. So, if you need to do mobile database work, for the moment look to Oracle or IBM.

Of course, Microsoft now has Pocket Access, but that's a totally different animal: it doesn't pretend to supply the same functionality, namely the replication capability. Pocket Access is supplied as part of Windows CE version 2.1 Professional Edition. Surprisingly, Microsoft has supplied Northwind as an example file. Northwind is a big, relatively complex application, and supplying it tends to highlight the parts of Access that have been chopped out of the pocket version.

But any version of Access is a major improvement on none, so let's look at what we get. For a start there are tables. Tables can be viewed in Form or Table view, or both at the same

▼ THE DATA IN THE TABLE CAN BE FILTERED...  
▼ ...AND YOU CAN PERFORM SEARCH AND REPLACE

under the stairs at home. Now you can relive the joys of Lotus 1-2-3 for DOS running in CGA mode.

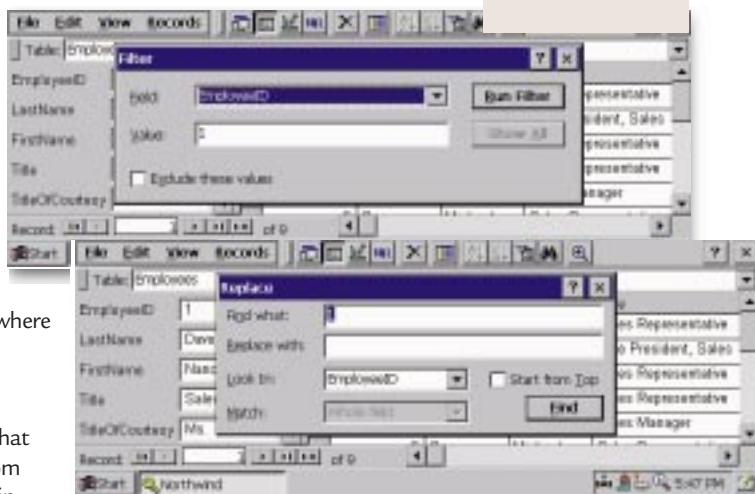
Intriguingly, the nb-info website <[www.nb-info.co.uk](http://www.nb-info.co.uk)> shows Turbo Pascal running. So I couldn't resist asking whether you could run TP4 on a Psion, develop an application, compile it, and then run the application on top of the emulator. The answer came back that, as far as nb-info knows, it should work. But you don't have to take their word for it: you can try a special time-limited version in our CD-ROM Software Library, in the zipped file called s5tmpcw.zip.

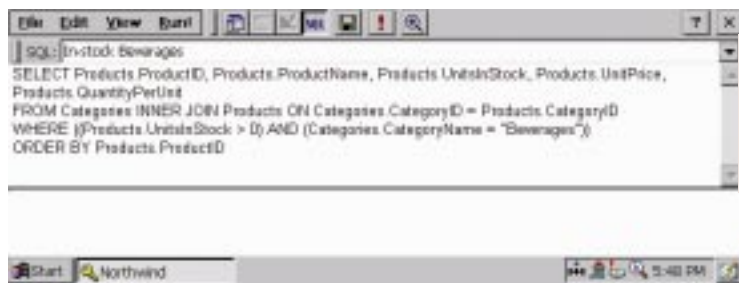
It's such a wacky idea, it must be worth doing. So give it a try and let me know what runs. Bear in mind that you need a licensed version of DOS as well, so rummage through those old disk sets.

## Mobile databases

I have written in previous columns about the merging of the database world and

▲▲ POCKET ACCESS — NORTHWIND'S TABLES  
▲ TABLES CAN BE VIEWED AS FORMS AND/OR AS TABLES





◀ **QUERYING IS STRICTLY BY SQL ONLY**

nervous about hardware upgrades,

time. However, you can't edit the layout of the form view: it's WYAGIWYG technology (What You Are Given Is What You Get).

You can perform search and replace on the data, filter the views and edit the data itself. You can also build and store queries, but there isn't a GUI query builder so it's back to SQL. And that's basically it. No GUI design tools, no joins between tables, no referential integrity. This is a very basic version of Access, but it's still fun.

If you think you need Pocket Access, you will want to upgrade to 2.1.

### ➤ **Upgrading your Windows CE OS**

To tell the truth, it was the lure of Pocket Access that led me to upgrade my LG Phenom Express to 2.1. One of the great beauties of the PDA is, as I've already said, the speed of its startup. This speed is, in part, a result of keeping the operating system and basic applications in ROM.

The downside is that upgrading requires a chip change, which can be an expensive and unnerving experience. Being a software person, I'm always

but this one was a cinch.

The upgrade pack (cost, £50 to £70) will probably contain a ROM board for the PDA and a CD-ROM containing Windows CE Services 2.2. The route you follow to upgrade will, of course, depend upon your machine, but the basic strategy remains the same. The upgrade involves wiping all your data and all the extra applications that you've installed, so be careful.

Clearly, if the instructions supplied with your upgrade differ in any way from these, follow the instructions supplied by the manufacturer. Don't perform the upgrade with wet hands, don't dry your hands in a microwave first, and so on.

So, how do I know that step 12 is essential? Well, my upgrade worked but had a bizarre side effect. All seemed well at first, but then I noticed that the screen

response to tapping was slow. Even more oddly, this effect was worst at the bottom of the screen, kind of middling in the middle and undetectable at the top.

Conversations with LG revealed that this was a known software anomaly (in other words, it's CE, not their hardware) and is caused by impatient users not waiting for the requisite two minutes. Severely chastened, I went through the whole process again, waited for three minutes just to show willing, only to be greeted by the same fault. (Ah ha! I thought I'd waited the allotted interval the first time around.)

Now, LG is of the opinion that I have a rogue machine, but the good

news is that I found a workaround. If I switch the CPU speed to Auto, or indeed to Low, the fault disappears. So you shouldn't see the fault on any Windows CE machine if you

follow the instructions, but if you do, try tweaking the CPU settings.

In the course of upgrading and downgrading the machine about six times, trying to get rid of the software

***The downside is that upgrading requires a chip change, which can be an expensive and unnerving experience***



▲ **UPGRADING THE LG PHENOM**

anomaly, I learned something else.

You know how a new machine asks you to play a game called 'Press The Screen Where The Cross Appears'? It turns out that this game isn't to enable the machine to fine-tune the touch-screen settings; if you miss out this step, the touch-screen is totally unusable, so be warned.

## UPGRADING YOUR OS, STEP BY STEP

Make sure the PDA's battery is well charged, then:

**1 Install** Windows CE Services 2.2.

**2 Back up** the entire PDA (in CE Services choose Tools, Backup/Restore, Full:Back Up all files).

**3 Back it up again**, and put a copy on a floppy disk.

**4 Once more** for luck.

**5 Check** that the

backups really have put files onto the PC.

**6 Remove** the main battery from the PDA and remove the backup battery (or, in the case of a built-in rechargeable backup battery, switch it off).

**7 You have now lost** all of your data and the extra applications, but that's OK because you have backups.

**8 Open up the cover**

and unclip the existing ROM board if it's there (some PDAs just have an empty slot).

**9 Insert** the new one.

**10 Put** the battery back.

**11 Perform** a Full reset (not a quick one).

**12 Wait** for two minutes (this is important, so wait the full two minutes).

**13 Turn on** the PDA.

**14 Reconnect** the backup battery.

## PCW CONTACTS

Mark Whitehorn welcomes your feedback on the PDAs column. Contact him via the PCW editorial office, or email [pda@pcw.co.uk](mailto:pda@pcw.co.uk)