



Mapping the market

Mark Whitehorn looks ahead to **Pocket PCs** and puts an organiser from Sharp through its paces.

And so it came to pass that the PDA market became fragmented. Various classes of device exist at present, with specifications ebbing and flowing as manufacturers try out a new tack. Broadly speaking, four classes of PDA can be identified.

At one end of the scale are machines like the Sharp Organiser (see below): they come in clamshell cases, have a keyboard and all the features you'd expect of a Personal Information Manager (PIM). They're also cheap, cheerful and amazingly useful, but there's not much opportunity for expansion with additional software – think of them as a sort of grown-up calculator.

Then come the Palm-type devices, such as Palm Computing's Vx. These don't have keyboards, you write on the touch-sensitive screen and lots of software is developed for them, from games to business tools. These cute little machines, which have more of a hold on the national psyche in the US than over here, can inspire evangelical devotion in their users.

The third class is the Psion-type unit:

In 10 years' time I don't expect to be carrying a separate phone, PDA and GPS unit

like a PIM, it has a clamshell case. However, it differs in that it has a keyboard large enough for the device to be used as a word processor. It also has a touch-sensitive screen. People develop software for these devices too, and in equally vast quantities. Like the Palm devices, the Psion has many users who are fanatical about their digital companions. (I'm not knocking this fanatical devotion, I fall in love with all these machines as well.)

Both Palm and Psion-type devices offer a degree of synchronisation with a desktop machine. There are two issues here: first, how easy is it to connect the device to the PC and get to the point



Here are two skins for the Windows Media Player, compatible with the Casio Cassiopeia E100 and E105, Compaq Aero 1500 and 2100 series, and Hewlett-Packard's Jornada 430se, at www.microsoft.com/windows/windowsmedia/en/software/WinPortPlay.asp.

where the two can see each other at the opposite ends of the wire. Second, how successful is the actual synchronisation process. While it may be simple enough to dump Outlook data to a PDA application and vice versa, when an

all be in a single, neat package. This is also the way that Symbian is moving.

Microsoft's offering for this market thus far is Windows CE. More specifically there is P/PC, a variant for Palm-sized devices in direct competition with the Palm. P/PC however, hasn't been faring very well. Microsoft is hoping for a change when it launches its new operating system for the PDA in mid-April. Called Pocket PC (a sensible name for once), it has been totally redesigned, is very different from its predecessor and will, I feel, generate a fifth class of PDA device. I won't be reviewing it here as the extensive changes to the operating system are covered in the *Reviews* section, but it does, however, signal an interesting development within the PDA marketplace.

Microsoft has crammed a whole heap of stuff into Pocket PC, enabling it to do a lot more than the average Palm-type device. During the redesign process, Microsoft did something which bordered on the fiendishly clever: researchers looked at Palm sites on the Internet to find out which software was downloaded most frequently and then built these applications into the core

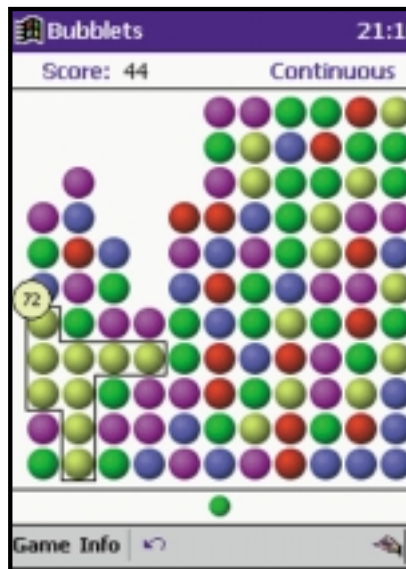
element of conflict resolution is required, things aren't so straightforward. Conflict resolution is inherently difficult: how can the synchronisation process decide whether the contact details you edited in your PDA on Tuesday should supersede those entered into the PC on Wednesday? It's a tricky area, and implementations vary in complexity and usefulness.

Lastly, there are the combination phone and PDA devices, championed by Nokia with the 9110 Communicator. These are surely the future: in 10 years' time, I don't expect to be carrying a separate phone and PDA and GPS (Global Positioning Satellite) unit, they'll



Above: Ah, this brings back memories and is surprisingly playable, even on a small screen

Right: Another addictive game for Pocket PC



PC operating system. We are talking about a 100-200MHz 32bit processor, 16MB of RAM, a 320 x 240 16bit active matrix colour display and support for 44.1KHz 16bit stereo sound. One happy bonus of the screen size is that many DOS games, such as ShadowGate, were written for this screen spec and can be ported

functionality of Pocket PC. The popular downloads were:

- Quicksheet/MiniCalc (spreadsheets)
- Pocket Chess
- ScreenWrite (handwriting recognition)
- HandMap (gazetteer)
- Datebk3
- Personal Money Tracker
- TealDoc (word processor)
- Word Doc Converter (exchange Word documents with the Palm)
- Avantgo (to allow connection to the Avantgo website: <http://avantgo.com>).

When you buy a Palm-type device running this new operating system, you'll open the box and, as well as the PIM-type features you'd expect, all the most popular software is ready and waiting. There's also heavy emphasis on Internet connectivity and email, and as if that wasn't enough, the device is also an MP3 player.

Consequently, manufacturers will need to stuff large amounts of processing power and memory into their hardware to run the Pocket

across with very little work.

The gulf between Pocket PC and Palm is sufficiently huge to qualify the Pocket PC for a class of its own. Whatever Microsoft might say, to compare a Pocket PC device with a Palm is, in my opinion, out of the question: a Pocket PC machine is much more like a PC from three years ago and a screen from five or six years ago, miniaturised. On cost grounds alone they're in different leagues, with the Pocket PC devices likely

Palms for fashion victims

What is the well-dressed Palm wearing these days? A Chameleon, of course.

To protect your Palm from the rigours of its social whirl, Scribble (www.scribble.uk.com) will supply you with a rigid black case inside which a Palm lies snugly, held in place by a hinge that makes ingenious use of the left-hand pointer slot. My only concern is the thin rubberised coating to the case which might, as it did on the early Psion 5s, prove prone to abrasion.

The Chameleon is so called because it comes with a range of coloured snap-in panels for the front and

back: the ones I've seen have a fine metal flake paint effect in red, gold and British Racing Green. It's a stylish solution for the colour-conscious. Make mine BRG.

Scribble's sister company, Palm-Tec, (www.palmtec.com) offers hard cases for the Psion, although I haven't seen these in the plastic.



Cross my Palm with colour?



to sell for about twice the price of a Palm.

With the launch of Pocket PC devices, the confirmed user of keyboardless PDAs will have an interesting choice. If you want standard PIM functionality with the option of adding games and other applications from third parties, the Palm will do all this neatly and competently. Don't even think of buying a Pocket PC. If you want to do data and processor-intensive stuff like play full-colour games, watch videos, listen to MP3 music as well as PIM activities, you may be tempted to pay the extra for a Pocket PC device.

Sharp ZQ700

It can be refreshing, every now and again, to return to one's roots. I've become quite used to the idea of middle-aged spread in PDAs (think of the slim Psion 3, the cuddly 5 and now the portly 7) and the creeping featurism that accompanies this expansion. As an antidote, I've recently been playing with a Sharp ZQ700 – a genuine PDA, a personal digital organiser in the old sense of the term. It's light, neat and measures 16 x 8 x 2cm, runs on two AA batteries, has a clamshell case with a qwerty keyboard and a backlit non-touch-sensitive mono screen.

The Sharp has a telephone list and a diary/agenda, you can write memos on it and you can synchronise data with your PC. There are lots and lots of things that it doesn't do but I suspect that many PDAs are used for just these tasks and not a great deal else. My own primary use

Emulate and check mate

Here are some useful websites from readers.

● Andy Davis wrote in to say he was glad to see the Spectrum making an appearance in March's *Retro* column. He wanted to point out that there are a couple of emulators available, one for WinCE and one for the Psion Series 5, at:

www.void.demon.nl/emulators.html.

● Microsoft's trawl of the Palm sites tells us that Chess is an ever popular application for PDAs. I do play, but not well and am therefore



If you are good enough, you may be able to beat this guy at chess. I, almost certainly, can't

totally incapable of judging the level of expertise of any particular package. However, ChessGenius has, apparently, won awards as a world championship-winning chess program for the Palm computing



platform. Serious chess players can find it at: www.chessgenius.com.

press Enter, they don't refer to the one to the right of the keyboard, next to your little finger, but to the one on the right of the screen that says Enter on it. It may be logical but it's also unwieldy.

Then again, the Sharp multi-tasks – well, sort of. If you're editing a memo, you can go and look up a phone number, but should you want to add a new number, you can't do this until you've finished editing the memo.

under the collar when one journalist said: 'I used my Palm for five days at Comdex and it never crossed my mind to change the battery; WinCE can't do that.' That, apparently, is different. Microsoft's contention is that PIMs get used in short bursts to take a note, add a contact, search for a phone number and that if they were in continuous use, that battery life would be equivalent to that of WinCE machines. All of which is fine, but the very fervour with which the information was delivered (complete with slides!) suggested that a nerve had been hit. I'm not sure anyone went away convinced.

The new Pocket PC devices are likely to be even more power-hungry than CE rivals. Some of the more industrial-strength prototypes had slim, interchangeable and rechargeable battery packs (about 2mm thick) that slot onto the back of the device. It will be interesting to see what the various manufacturers can come up with to pacify the massed arm-wavers.

The new Pocket PC devices are likely to be even more power-hungry than CE rivals

for my Psion is as a handy and rapidly-accessible telephone list; I find it indispensable and it would be the feature I'd keep if I could retain but one. For around £100, the Sharp is well worth considering if you mainly use a basic feature set: you could get 90 per cent of the functionality you need for 20 per cent of the cost.

Sadly, even a device as simple as this still manages to have niggling interface faults. For example, unbelievably, it has two enter keys, one on each half of the shell, one labelled Enter and the other with the right-angle arrow symbol. When the on-screen instructions tell you to

In spite of these handicaps, the Sharp is compact, light and cute. It has a number of rough edges, but for the money it has a good set of basic features.

Assault and battery

Battery life has been discussed more than once in this column and it always proves a contentious subject. If you've ever suffered from the low battery syndrome, you'll be delighted to know you're definitely not alone. During a recent visit to Microsoft in Seattle (to see the Pocket PC in prototype) it was the only issue to provoke raised voices and waved arms. Microsofties became hot

CONTACTS

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