



# Connection correction

**Without connectivity, the mobility of PDAs is limited. Mark Whitehorn shows you the way to get around this. Plus, the new Psion 3MX.**

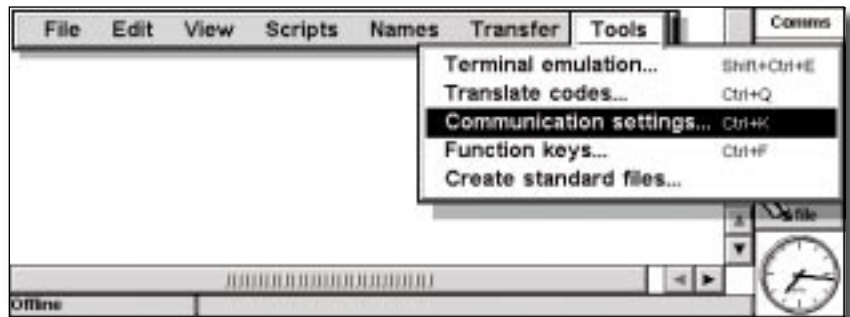
**P**eople want to move data between a PDA and a PC or a LAN for several reasons; it all depends on the use to which they put their PDA. Many people produce work (documents, worksheets) on a PDA and want to move it wholesale to the PC for further editing, printing and dispatch across the internet. This is a two-way process because partially-completed work can be moved to the PDA for editing while on the move.

People also use PDAs primarily as an address-list-cum-organiser. Such users are not really concerned with moving specific documents; instead, they want to synchronise data held in applications on both machines. Such people typically use proprietary applications like Microsoft Outlook and Psion Agenda, or Lotus Organizer and Outlook on a WinCE machine. Corporate users maintain a database at work. Typically, it has a proprietary back end such as Oracle and a custom front-end application. These users are keen to move the application to a PDA. A number of interesting problems accompany this, not least of which is maintaining data integrity with a disconnected device.

All these functions can be performed from PDA to PC via a bit of wire and a serial connector on the PC. However, for some PDAs and some applications, the same can also be done via a network connection. This is usually more expensive but offers the promise of a much greater transfer rate.

## Net connectivity

The two easiest ways of connecting to the internet are via a service provider or through the LAN at work. There are several PDAs out there — Pilots, Psions, WinCE machines (of various flavours). We cannot



**FIGS 1 & 2 SOME PDAs HAVE BUILT-IN COMMS SOFTWARE LIKE THIS (IN THE PSION 5)**

possibly cover them all, so I'll try to be as general as possible while describing the most likely options. Let us assume that you want to connect via an internet service provider (ISP). You'll also need a modem. But before you rush off and lay out money on either, you need to know some of the background to all of this comms stuff. Why? Because most ISPs will expect you to be using a PC or a Mac to connect to their service and that is what you haven't got. It's going to make a major difference.

***A network connection is more expensive but offers a much greater transfer rate***

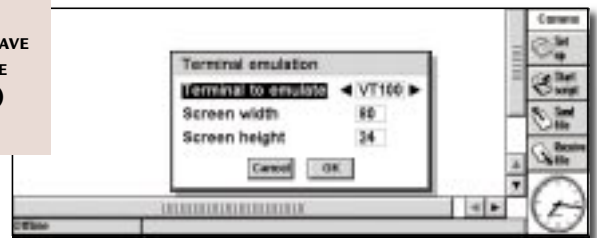
**A tiny slice of history** is relevant here. In the good-old days when I was a boy, PCs used DOS. No GUI, just a good old-fashioned text-based interface. When companies like CompuServe and CIX started up, they weren't really ISPs because the internet was still in its infancy. They were Bulletin Boards (BBs) where you could send messages to other users of the same service, read primitive news groups and so on. You used a modem to reach the bulletin board and ran a piece of software on the PC that was known as a terminal emulator. This effectively dumbed-down your PC so that it became a device for sending and receiving text characters. Whatever you typed on the keyboard appeared on the screen and was

sent via the modem to the BB. If and when the BB deigned to send characters back, they appeared on-screen. You could issue special commands to send and receive files, but basically the entire exchange with the BB was text-based.

Nowadays, all that has changed. Not only does your PC run some flavour of Windows, but the ISP will provide special "front-end" software which runs on your PC. This software is by no means dumb. In fact, a great deal of the art of providing a good ISP service lies in the cleverness of this software. The smarter it is, the less data has to be transferred down the phone line to you and the faster the service appears to run. So, you plug in and configure the modem, load the front-end software and connect to the ISP. (Yawn... no-one likes history lessons, but the relevance of this one is, hopefully, becoming clear.)

You have a PDA, but a PDA will not run the special software provided by the ISP — not even if it is a WinCE machine. So, unless the ISP happens to provide a special front-end for your particular PDA, you cannot connect to the ISP via the normal route. Even if you could get a connection, you would want to surf the web, for which you would need an internet browser; but neither Netscape nor IE will run on your PDA.

**There is a solution**, however, otherwise we wouldn't be going through all of this. The first, and potentially easiest, remedy is



to go in via the historical route. Most PDAs either have a terminal emulator built in [Figs 1 & 2] or you can find one on the internet. (Yes, I realise there is a "Catch 22" built in to that statement, but we'll work on it.) If your chosen ISP still provides a text-based interface then you can enter via that. Terminal emulators can be a pain, but their saving grace is that they dumb everything down to the lowest common denominator: the ISP software cannot tell if your machine is a PC or a PDA and neither will it care. It will simply send and receive text characters. This still won't get you to the stage of surfing the web, however, because HTML demands that your machine is running some form of browser.

**The second approach** is to find some form of software that will run on your PDA and which provides a GUI interface to an ISP and includes a browser. And here we reach another potential stumbling block. Web browsers are, theoretically, very simple. They receive a string of data in HTML format and turn it into text and pictures on your screen.

In practice, modern browsers are large, complex bits of software. The most recent version of Netscape takes so much processing power that it totally socks a 486/25 with 8Mb of RAM. I know — I've just dragged out an old machine and tried it. Now look at your PDA: if it's a Psion 3c, then as much as I dearly love that machine, it lacks the horsepower to run a fully-featured browser at anything like "normal" speed. (*I wonder about the 3MX though? — see panel, below.*) The end result is that browsing from a PDA is usually slow and/or the browser offers a reduced feature set.

## Off and on

All this must sound like I'm trying to put you off the whole idea. Well, I most certainly am not. I love playing with these machines and there is oodles of fun to be had in connecting to the internet. But if or when you finally get there, it would be a shame if you were disappointed with the result. A PDA is nothing without software and there has been an explosion of applications

## PSION SENSE

### ➡ The PsiSync alternative

I had a go at PsiWin in a recent column, only to discover that Bob Walder, who writes *Hands On Networks*, had done the same in the August '98 issue. Bob kindly forwarded this email to me from reader Jake McMurchie [jakemc@netcomuk.co.uk](mailto:jakemc@netcomuk.co.uk):

*"I read your article in the August issue of PCW and have to agree with Bob Walder's opinion of PsiWin. Fortunately, Psion pointed me to PsiSync,*

*an item of shareware written by Brian Cadge and available from [www.kerswell.demon.co.uk](http://www.kerswell.demon.co.uk)."*

This software allows full and easy transfer of information between Outlook Contacts, Calendar and Notes files, and Psion agenda and database files, neatly setting up the notes as entries in a database on the Psion. It won't translate Word files to your PC, but since you have to shell out for PsiWin if you want the connector cable, you can use the Psion software for that.

And the best thing about it? It's yours for £14. So, if you are unhappy with PsiWin, try this.

### ➡ Psion tip of the month

If you are performing any spreadsheet calculations, zoom in as far as possible if you need to perform a major recalc — it really does seem to make a significant difference to the speed. This applies particularly to the 5, but also to the other models.

appearing in the past six months. All seem to be of interest so, for the next few instalments of this column, I'll try to touch on all these topics in one way or another.

## Love story

I think I'm in love (*sigh...*). I've got it bad. There you are, thinking that you are happy in a stable relationship, when suddenly, across a crowded room, your eyes meet. OK, so that was three eyes in total, because the current object of my affections has only one eye (and, yes, technically, that eye does see in infra-red) but hey, love is blind.

The Psion 3MX is my new love. Oddly, it looks and feels more like a 3a than a 3c because the rubbery coating of the Psion 3c has been dropped. According to Psion, that was because it looked rather "nineties" and the 3MX is a machine for the new millennium. According to the scuttlebutt on the newsgroups, it's because the rubber coating tended to peel off and

make the Psion look old and tatty before its time. Nevertheless, the change has a delightful side effect. I used to carry my 3a in a custom case that I was forced to abandon when the coefficient of friction of the 3c's surface rendered insertion and extraction impossible. I dug out the case and the new Psion nestles comfortably inside — safe (or at least safer) from the effects of careless handling. However, if this had been the only difference I could have achieved the same effect with a potato peeler.

**Another reason for pensioning off** the 3c in favour of a Psion 5 was that I craved speed. The 3c stored my full list of names and addresses but the search time was too sluggish. In addition, I found that I was giving the 3c increasingly difficult spreadsheets to calculate and they were becoming slow. Oddly, the migration to the 5 never felt as if it produced the speed gains I was expecting, although I never actually performed any tests (*but see time trials and results, this page and next*).

**The great selling point** of the 3MX is that it is substantially faster than the 3c. Rising to the challenge, I decided to move the data back but this time to take some measurements. The results were surprising.

How Fast?	Find record	Paste	Recalc 1	Recalc 2
Psion 3c	2	9	6	10
<b>Psion 3MX</b>	<b>1</b>	<b>3.5</b>	<b>2.5</b>	<b>4</b>
Psion 5	3.5	6	7	43
HP 620LX	1	2	1.5	2.5





## TIPS AND TRICKS FOR WIN CE

Reader Jon Whiten [whiten@usa.net](mailto:whiten@usa.net) recommends a great freeware site at [www2r.biglobe.ne.jp/~tascal/english/index.htm](http://www2r.biglobe.ne.jp/~tascal/english/index.htm).

It includes such items as:

**TascalLha** (compression software)

**HexDump** (hex file viewer)

**TascalSearch** (file searcher)

**Daughter in the box** (a simple board game)

**TascalFile** (file manager)

**TascalExplorer** (file manager)

**TascalWPC** (a utility for changing windows wallpaper)

**Bmp2bp** (bitmap file converter)

**TascalRegedit** (registry editor)

I have looked at this site before (*see the screenshots, below*) and it appears to be run by a real enthusiast who seems happy to write really good shareware.

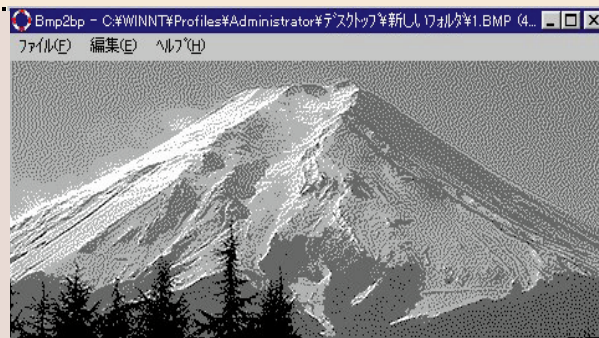
If you have access to a network (or a Network Interface Card in your PC) and have Windows CE 2.0, go and buy a PCMCIA network card and you will find that Backup, Active Sync and program installation are much faster.



FROM THE TASCAL SITE, AN INTRIGUING GAME. YOU HAVE TO "TAKE OUT AN INNOCENT GIRL WHO KNOWS NOTHING OF THE WORLD"...

...AND FROM THE SAME SITE, IMAGES FOR YOUR WINCE MACHINE

THE TASCAL WEB SITE POINTS OUT THAT ITS "SOFTWARE ARE [sic] AWARE OF ENGLISH WINDOWS CE MACHINES"



## Time trials

I carried out four tests: one in the database and three in the spreadsheet.

Find record. The time, in seconds, to find the 466th database record out of 469.

Paste. The time, in seconds, to paste the formula =RAND to 1,000 cells with the screen fully zoomed-in (i.e. large cells, few visible).

Recalc 1. The time, in seconds, to recalculate =RAND in 1,000 cells with the screen fully zoomed-in (i.e. large cells, few visible).

Recalc 2. The time, in seconds, to recalculate =RAND in 1,000 cells with the screen fully zoomed-out (i.e. small cells, many visible).

Psion is right: the 3MX is considerably faster than the 3c (*see the table, "How Fast?", p265*). Fair enough, it is essentially the same machine with a faster processor. Interestingly, the 3MX is also faster than the 5. Indeed, the results for the 5 suggest that it is not significantly faster than the 3c at processing data (I'd always had my suspicions after I swapped). The main speed hit on the 5 seems to be screen redraw.

Once I started speed-testing, I couldn't resist doing the same tests on a WinCE machine, the trusty HP 620LX. This was just under twice as fast as the fastest Psion, which is what you might hope considering the price difference between the two machines.

## The speed factor

The take home message about speed is that if it is your number one priority, try out a WinCE machine. (Remember, though, that not all WinCE machines are created equal, so other makes may differ from the HP620.) If speed is an important but not overriding consideration, think about the 3MX because, for the price, it really doesn't scream along. But of course, speed isn't everything, so all the other factors — keyboard, screen and so on — which make up a PDA are still likely to be more important to most people.

## PCW CONTACTS

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