



# WinCE without pain

Mark Whitehorn guides you through **connecting to the net** with Windows CE.

In the May issue, we looked at connecting a Psion to an Internet Service Provider (ISP). This enables you to surf the internet and to read mail from your handheld device. Now it's the turn of WinCE.

**This step-by-step guide** refers to Windows CE 2.0. I know that 2.1 is already out but my guess is that most people have 2.0, so I will use that.

Concerning the Psion, I could give fairly definite step-by-step instructions because Psion hardware and software is the product of a single company. Windows CE can vary between different devices so I cannot be quite so exact. This should not cause too much of a problem, though. If your setup differs in some small detail, just apply common sense and all should become clear (*he typed, hopefully*).

First the background... or not. This was spelt out in detail for the Psion, in the May column, and much of that is relevant to WinCE. But here's a *précis*, in case you don't have that issue to hand.

## ■ Theory and background

You will need: a WinCE machine, an account with an ISP (Internet Service Provider), a modem, and sticky-backed plastic. (*Anybody who is now actually looking for sticky-backed plastic is taking all this too seriously!*).

## ■ ISP information

For your WinCE machine to be connected to the internet, it needs to have a unique IP address allocated to it. This number is made up of four values, between 0 and 255, separated by dots. For example, 124.56.78.9. This is either allocated to you when the account is set up (static allocation) or a different one is allocated by the ISP every time you connect (dynamic allocation).

So, before you ever get to the stage of trying to connect to the internet, find out from your ISP:

- Whether it allocates IP address statically or dynamically?

- If statically, what is your assigned IP address?

In addition, you also need to obtain the following information from your ISP:

- The number to ring to connect.
- Other IP addresses — namely those for the primary and secondary DNS.
- User Name and Password.
- POP3 Host and SMTP Host addresses (only required if you intend to use email).

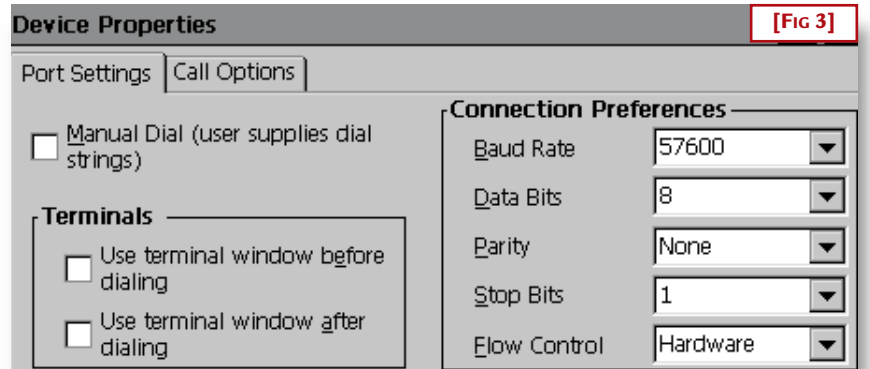
For reasons outlined in the May issue, I have found Demon Internet to be more 'PDA friendly' than some other ISPs. This



[Fig 1]



[Fig 2]



[Fig 3]

is not based on scientific study of a reasonable number of ISPs, so your current ISP may be fine. If you do not yet have an account, my advice is to try Demon.

## ■ Modem

Some WinCE machines, such as the Phenom Express which I used for this demonstration, come with a modem built in. This makes life relatively easy. If your machine is currently a modem-free device, you will need to obtain one. Whatever you buy, make sure that it is compatible with WinCE machines.

The Phenom also came with drivers for a Hayes-compatible modem which means that I could

have used one of those, connected to the serial port if required.

## ■ OK, let's get started...

From the Start menu, select Programs, Communications, Remote Networking and double-click on the 'Make New Connection' icon. Give the connection a slightly more sensible name and make

sure that Dial-Up Connection is selected. See [Fig 1].

➡ **Click** on 'Next' and select your modem [Fig 2]. Then hit the Configure button. You need to fill in reasonable values in here [Fig 3].

Yes, I know that is an unhelpful thing to write but the choices you make will depend partially on your modem and partially on the ISP. For example, your modem might be limited to 19,200 as a baud rate, or indeed the ISP might be limited to that. However, 57,600 is likely to be reasonable for most modern kit and ISPs. The connection preferences are determined by the ISP, but eight data bits, no parity, one stop bit and hardware flow control are all reasonable.

In the Call Options tab, the defaults are reasonable. If your modem needs special instructions (such as AT&F which resets Hayes-compatible modems) this is the place to put them, but mainly you can leave this blank.

➡ **Close** this dialogue and select TCP/IP settings [Fig 4]. Demon uses static addressing, so here I am in the process of

**If your machine is modem-free, you will need to obtain one**

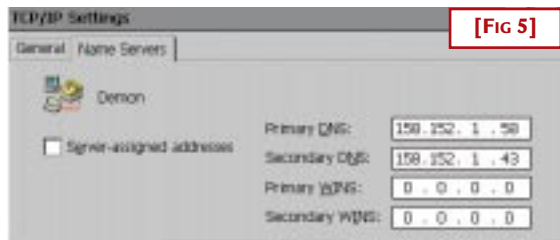


[Fig 4]

inserting my IP address in the General Tab; you would insert your IP address, not mine, in here. The rest of the selections seem to work fine.

➔ In the Name Servers tab [Fig 5], the figures shown are those required for a Demon account.

- Primary DNS — 158.152.1.58
- Secondary DNS — 158.152.1.43



[Fig 5]

Oh, and you do need to de-select the 'Server-assigned addresses' option, as shown. I know that it was Demon who assigned these addresses but Demon's server is not dynamically assigning these addresses every time you log in.

➔ Close that dialogue and move on to the next [Fig 6]. Here you fill in the dialling details of your ISP. The details shown are for Demon.

With that, you should reach the end of the dialogues and be able to close



[Fig 6]

them and look at the new icon which has appeared [Fig 7].

You might expect that you'd done enough to be able to try connecting at this point, but you'd be wrong; there is



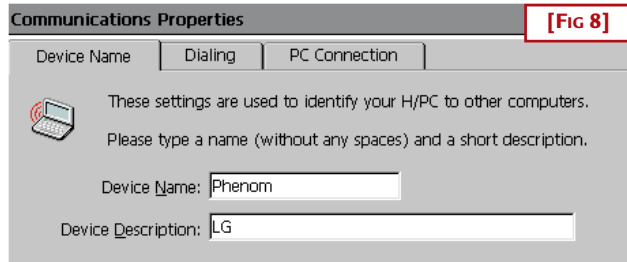
[Fig 7]

still a little work to do. Now, there are at least two different ways of doing the next bit so if you have already got a connection working and the next bit

doesn't sound familiar, don't panic.

➔ Fire up the Start menu again, choose Settings, Control Panel and double click on the Communications icon, whereupon the dialogue in Fig 8 appears.

➔ Select the Dialing tab, press the New



[Fig 8]

button, and give the New location a meaningful name. If you typically connect in from your home, then 'Home' would seem to be a reasonable choice! Fill in your local area code, your country code, and select

Tone dialling (unless you still use pulse) [Fig 9]. Disabling 'call waiting' is not



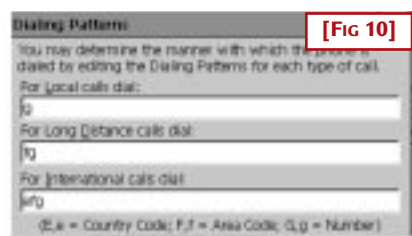
[Fig 9]

something I have to do, but it sounds worth doing if you have that service. I presume that you do not want your downloads to be interrupted.

Now, surely they think it's all over, but no. There is a gotcha waiting. I write from bitter experience, having been caught out by this one myself.

➔ Press the 'Dialing Patterns' button and fill in these apparently meaningless codes:

g  
fg  
efg



[Fig 10]

And here, in Fig 10, you are telling the WinCE machine which bits of the numbers to use under what conditions:

e = country code,  
f = area code  
g = number

So, the fg setting for long distance calls tell the machine to use 0845 and 2120666 when dialling Demon. Simple really, but it will not work if you do not fill in the boxes.

➔ Close all of that down, including the Control Centre and go back to Remote Networking (which is reached via Start menu, Programs, Communications).



[Fig 11]

Double-click on the Demon icon and press the 'Dial Properties' button.

➔ Select Home as the location from which you are dialling and close down that dial-

logue. You should find that a cryptic 'T08452120666' appears next to 'Phone:' [Fig 11]. This shows that Tone dialling will be used and the number dialled will be as shown. If this doesn't look right, go back and check the setting in the 'Dialing Properties'.

If all looks OK, make sure that:

- The WinCE machine is connected to the modem.
- The modem is connected to the telephone socket.
- The modem has power.

Then fill in your user name and password, take a deep breath and press the connect button. If all goes well, you



[Fig 12]



# hands on

## PDA's

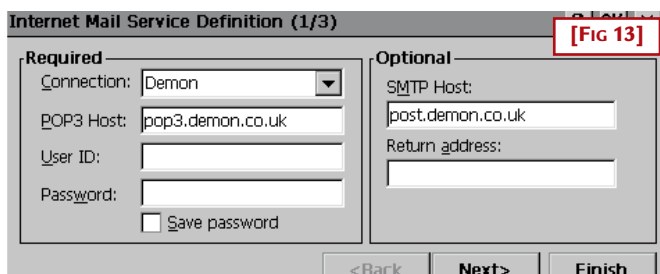


will hear a surprising array of beeps, squeaks, clicks and buzzes coming from the modem, and a dialogue should appear, telling you that you are connected. Fire up Pocket IE, say, and you should be on the internet [Fig 12]. Wow!

### ■ Setting up email

If you want to send and receive email, you can use Pocket Outlook, but first you have to input more dialogue.

Fire up Start menu, Programs, Pocket Outlook, Inbox. Pop down the Service menu and choose Properties. This is where you need the POP3 and SMTP host addresses. You also need to select the Connection (Demon) and fill in your User ID and password [Fig 13]. The setting in the next dialogues are basically up to you — the defaults will almost certainly get you going.



With any luck, all you have to do from this point is to pop down the service menu and choose Connect. You'll be asked for your password and then the WinCE machine should dial out and you should be able to read and send email.

### ■ The art of connecting

Connecting machines to the internet is still something of an art form, so please don't regard these instructions as the definitive set; instead regard them as a starter set which should get you much closer to connecting than otherwise. If the connection doesn't work immediately, go back through the

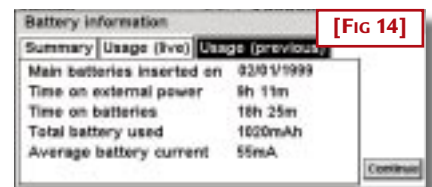
steps, applying common sense wherever possible.

### ■ Psion 5 battery life

Andrew Poulter <[A.J.Poulter@btinternet.com](mailto:A.J.Poulter@btinternet.com)> writes: 'I would like to agree with Geoff Dennis' letter (PDAs, April). I, too, have no problem with battery life on my Psion 5. I buy my batteries from Tesco, specifically their own brand 'Long Life Alkaline' batteries. Using these batteries in my Psion on a daily basis, I get an average battery life of 15-20 hours. To prove I'm not making this up, I have taken a screenshot (with Ctrl-Fn-Shift-S) and put it on my web site. Have a look at [www.btinternet.com/~a.j.poulter/Psion5Pic.html](http://www.btinternet.com/~a.j.poulter/Psion5Pic.html).

*If all goes well, you will hear an array of beeps and buzzes*

'Furthermore, I use a daily wake-up alarm in the morning and, often, other alarms during the day. I also occasionally use the backlight to read details in



low lighting conditions. I bought my Psion in October 1997 and it is OS version 1.01(145). I have read similar criticism of the Psion 5 before, and I am now starting to wonder if some of the later models are faulty?'

To save you looking at Andrew's web site, here is his screenshot [Fig 14], clearly showing 18+ hours of battery life. I have said before that I reckon some machines use a great deal more power than others. I have had two, and one was dreadful while the other was OK. But OK still means it only gives me about eight hours, maximum. My feeling is that the earlier versions soaked up more power, but who knows? — Psion perhaps?

### ■ GPS connection solution

As a gadget fan with a propensity for attaching GPS units to PDAs, I am delighted to note that this is a growing trend. I published a URL to a site with instructions on how to build cables for connecting to Psions, to which the response was enthusiastic. Psions need slightly strange cables that can be a pain to make up, so I looked for a company that will sell you a ready-made cable.

The company that I discovered is Exportech <[exportech@compuserve.com](mailto:exportech@compuserve.com)> (PO Box 3465, Southbourne, Bournemouth BH6 3YF; call 01202 422570, or fax 01202 422870). The firm can also supply a 12v cable that will let you run your GPS unit from your car's cigar lighter. Cables cost £39 (plus £2.50 p&p and VAT). If you also buy a GPS unit, the cost falls to £33 (plus p&p and VAT). This may sound expensive but having looked into the price of the components you need, it's a cost-effective solution, especially if you're not handy with a soldering iron.

## PCW CONTACTS

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