



# On the transfer list

Mark Whitehorn **surrenders Palms-up** to the fact that data transferral is no bed of roses.

In the November issue of PCW, I made plain my feelings on the longevity of Windows CE after attending, in

rapid succession, the Symbian and WinCE developers' conferences. I came to the conclusion that WinCE is here to stay. I did try to forestall the potential flood of hate mail from Psion users by trying to make clear what I was not saying:

➤ That WinCE is technically better than Epoc. I think the reverse is true, but technical excellence is not going to be the deciding factor.

➤ The Psion PDA line is finished – Psion can continue to produce machines that I hope will sell well. I like the machines the company produces.

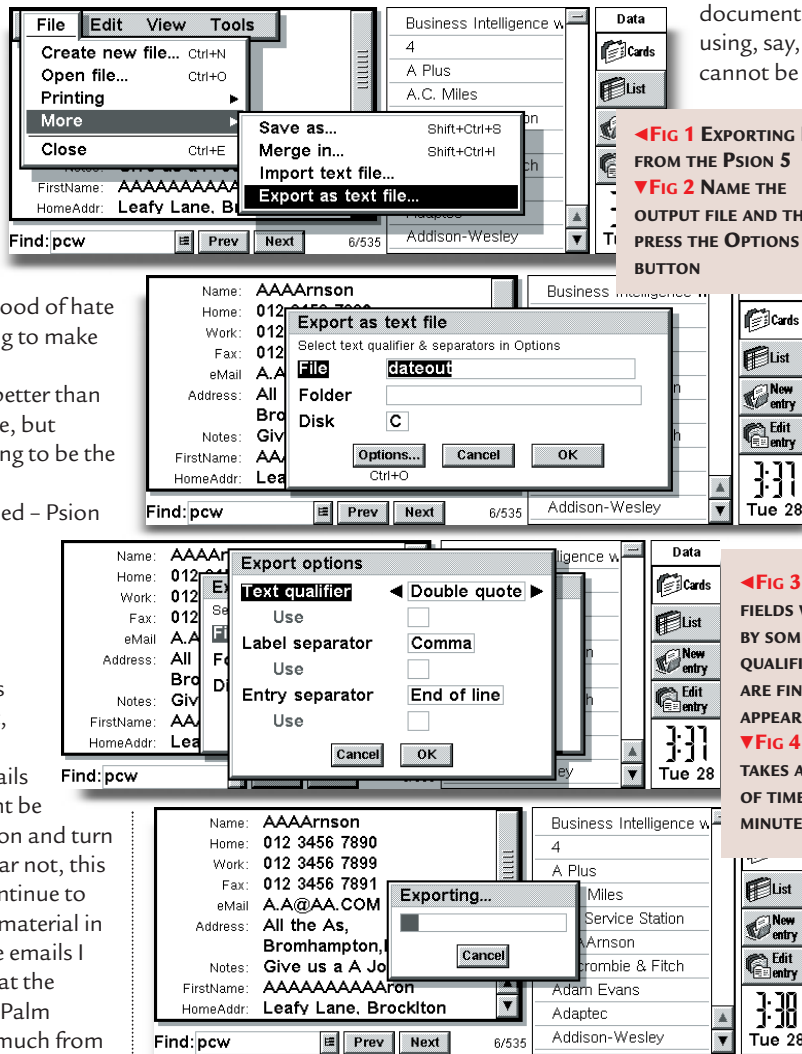
➤ That might be right.

To my intense surprise this worked; at least up to a point, no-one was actually abusive. However, I did get several emails expressing the fear that I might be intending to abandon the Psion and turn this into a WinCE column. Fear not, this is a PDA column and I will continue to try to keep the proportion of material in approximate balance with the emails I receive. Indeed, I often feel that the column under-represents the Palm community, but I don't hear much from Palm users (hint to Palm users).

**So, just to prove** that I still love my Psions, I'll use them as the example in this look at how to move data between non-compatible applications. However, in order to placate the WinCE and Palm users, bear in mind that the Psion is just the example – almost all the material is simply about data and moving it between both applications and platforms. So you could use it to move data from a PC to a Palm, a Palm to a WinCE machine or from any reasonable variation thereof.

### ■ Boldly moving data

This was prompted by an email from George Hendricks. George has a Psion 5,



document written and saved using, say, SuperWriter; cannot be directly read into

Microsoft Word. Of course, some transfers (eg Word-Perfect to Microsoft

Word) are so common that import mechanisms are built in to the different packages.

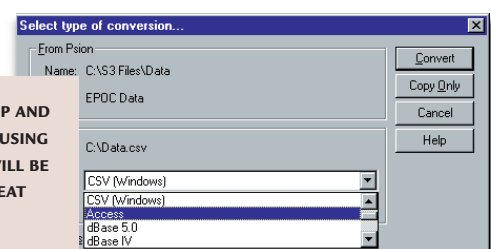
➤ **Fig 1 EXPORTING DATA FROM THE PSION 5**  
➤ **Fig 2 NAME THE OUTPUT FILE AND THEN PRESS THE OPTIONS BUTTON**  
➤ **Fig 3 MAKE SURE THE TEXT FIELDS WILL BE SURROUNDED BY SOME FORM OF TEXT QUALIFIER. DOUBLE QUOTES ARE FINE, UNLESS THESE ALSO APPEAR IN YOUR DATABASE**  
➤ **Fig 4 THE EXPORT OFTEN TAKES A SURPRISING AMOUNT OF TIME – A COUPLE OF MINUTES OR SO**

However, the point is that it is the application-specific nature of data, rather than the

movement from one machine/operating system to another, that is the cause of most of the aggro. So that is what we will have to concentrate upon. We have essentially three alternatives:

➤ **Intermediary applications**  
We can use an intermediary application that can read/write files from both the

which is slowly but surely failing. Being a committed Psion fan he has purchased a Psion 3mx to replace it. So far so good, but there is no automatic way to transfer the data on the contact list on his database (as there is from the 3 to the 5). At the risk of teaching my parent's maternal parent to evacuate avian ova containers, it is important to remember that virtually all applications, be they word processors, databases or contact managers, store their data files in some form of proprietary format. So, a



➤ **Fig 5 IF YOU PICK UP AND MOVE THE DATA FILE USING PsiWIN, THEN YOU WILL BE OFFERED A RATHER NEAT CONVERSION UTILITY**

applications. This is the easiest solution... as long as you can find such an application.

As a rule, most applications can read and write text files. So, we can extract the data from the source application (in this case Data in the Psion 5) as a text file and import that into the target (Data on the Psion 3). The only problem is that text files are not as simple as they first appear (see panel on the next page).

We can use a combination of the above mechanisms – extract the data as a text file, pop it into an intermediate application (such as Microsoft Access for manipulation) and then export as a text file for import into the target application. This sounds long-winded, but it does enable us to get the best of both worlds.

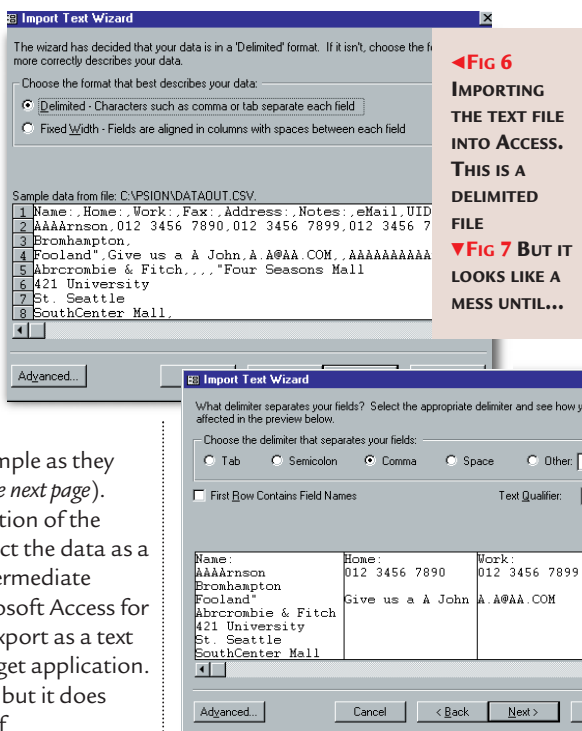
### Extracting the data

Given that it's a simple application on a PDA, the Data application on the Psion 5 has rather impressive export facilities. We can export using the File, More, Export As Text File option [Fig 1].

You can enter the name and location of the export file [Fig 2] and from the Options section [Fig 3] you can choose the various export options – see panel for details. (I have chosen to wrap double quotes around the text fields.) Then you just set it running [Fig 4] and when complete, you transfer the file to the PC.

That demonstrates the typical export mechanism of many applications, in fact PsiWin also offers relatively sophisticated translation abilities. So you can close the Data application on the Psion; connect to the PC with PsiWin; browse to the Psion's disk; pick up the data file and drag it to the PC. Whereupon it will be transferred and you will then be offered a conversion utility [Fig 5]. You can select CSV format, or any one of a number of existing data formats. For my own sinister reasons (actually just to demonstrate that this is also possible) I'll do an export like this into Access format.

At this point I have the file on the PC in two known formats (CSV and Access)



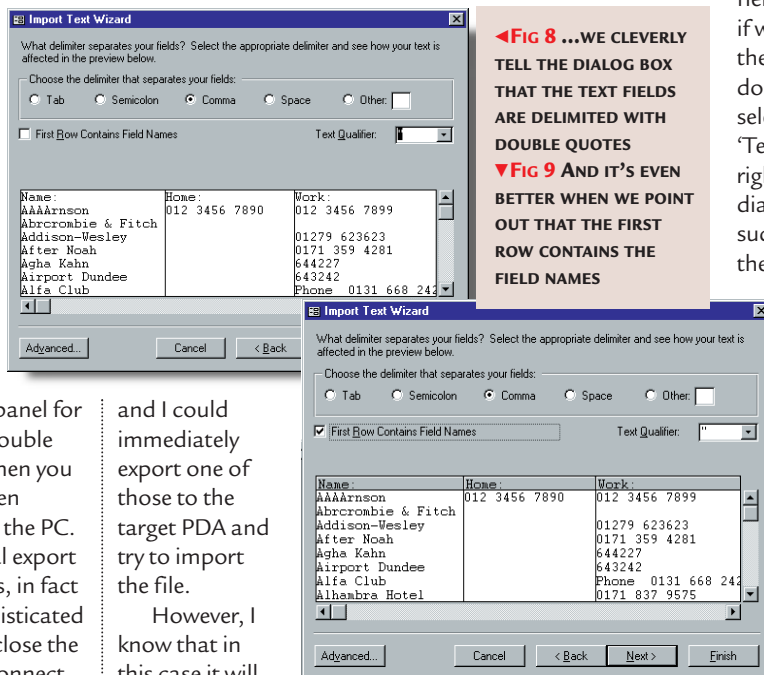
all of this on the Psion 5 before I started the export, but the data has to go through the PC in any case, and Access is a better tool for looking at the data overall.

### Modifying the data on the PC

You can simply open the Access file that PsiWin generated, and there is the data in an Access table – very neat. If you have gone the CSV route, to import the data from there you need to start Access; open a new database; select File; get External Data; Import; choose Text file from the dialog box; navigate to the CSV file and a dialog should appear [Fig 6]. It is at this point that your intimate knowledge of text files comes to the fore. We elected to put double quotes around the text fields, which is just as well because, as it stands, the data looks like a mess due to the carriage returns in the Address

field [Fig 7]. However, if we tell Access that the text fields have double quotes by selecting the correct 'Text Qualifier' (on the right-hand side of the dialog box) all is suddenly well because the carriage returns are

ignored [Fig 8]. If we also tell the import wizard that the First Row contains the field names, it looks even better [Fig 9]. The rest of the wizard is straightforward [Fig 10] and the data appears in an Access table.



and I could immediately export one of those to the target PDA and try to import the file.

However, I know that in this case it will fail because the database I started with on the Psion 5 has 13 fields with an average length of 50 characters. To save you from the mental maths that's about 650 characters. I know that the target application (Data on the Psion 3) will only import lines of 255 characters or less because I read the manual before starting. So I want to use Access to search through the data, remove redundant fields and reduce the field length of others. I could have done

Having got your data as far as the PC, I'll leave you on tenterhooks waiting for next month's exciting issue.

### Painting package for WinCE

I was asked about a Paint package for WinCE. Apparently there is a monochrome one to be found on the Microsoft website at [www.microsoft.com/windowsce/products/download](http://www.microsoft.com/windowsce/products/download).

To my intense shame I have lost the



## TEXTUAL FIELDING

**T**ext files consist of, well, text. But the data in a text file can be laid out in several ways.

### ■ Delimited, also known as CSV

One common format is called Delimited, usually (and less accurately) known as Comma Separated Value.

Suppose you have a data file which contains 200 contacts. These are stored as five fields FirstName, LastName, Phone, Fax, email.

If you export these as a CSV file, that file will contain 200 lines, each laid out like this:

```
FirstName, LastName, Phone, Fax, email
Fred, Barnett, 01234 567 8901, 01234 567 8902, F.Barnes@FB.COM
Samantha, Jones, , SJ@Jones.co.uk
```

Note several points:

- ➡ The fields of information are separated by commas
- ➡ Each line holds one record
- ➡ Missing data can be deduced by commas with no data between them
- ➡ The field names may, or may not, appear. If they do, they

will be the first line of the text file.

Clearly, if our data happened to contain any commas (for example, if we have an address field that contains data such as '23 Acatia Gdns, Bolton') we are in deep trouble because the system is using commas to work out which data goes where – so the extra commas will throw that out completely. Carriage returns inside fields will cause exactly the same problem.

So CSVs may use something other than a comma to mark the separation between fields. The application you use to create a CSV may offer you a choice of separator to use in place of the comma. Clearly you should choose one which is NOT found in the data.

It may also offer to wrap text fields up in quotes "like this". Any commas or carriage returns that appear between the quotes are then ignored.

### ■ Fixed width

Another common way of laying out data in a text file is to pad out the fields with spaces:

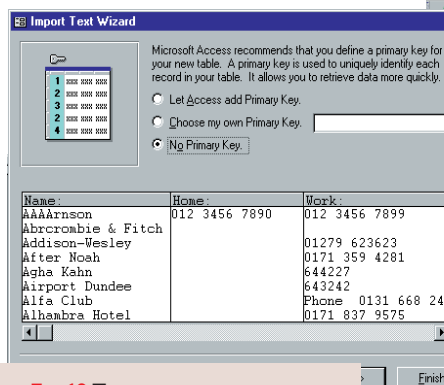
```
FirstName LastName Phone Fax email
Fred Barnett 01234 567 8901 01234 567 8902 F.Barnes@FB.COM
Samantha Jones , SJ@Jones.co.uk
```

These are easier for humans to read, less worrisome (because the commas don't cause a problem), but are typically much larger than CSVs because of all the padding.

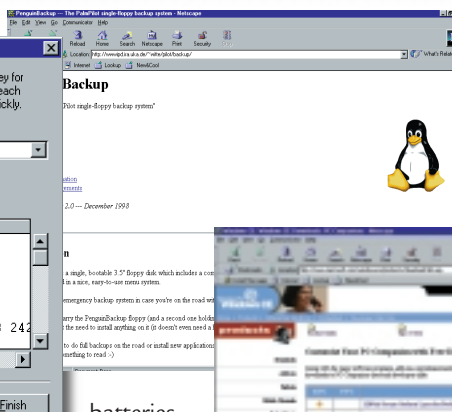
Another more general problem is that many applications will only import/export text files where the maximum line length is less than or equal to 255 characters. This happens to be true for our example.

Another point to bear in mind is that text files, by definition, do not include formatting information. If the data to be moved is from, for example, a database, it may consist of data that is heavily 'typed' – for example, dates.

You can probably transfer that information as text but, depending upon the sophistication of the target application, you may have problems turning it from text back into 'real' dates.



**▲ Fig 10 THE REST OF THE IMPORT WIZARD IS FAIRLY STRAIGHTFORWARD. SELECTING A PRIMARY KEY IS NOT ESSENTIAL BECAUSE THIS DATA IS ONLY GOING TO BE IN ACCESS BRIEFLY**



**◀ Fig 11 PENGUINS EVERYWHERE  
▼ Fig 12 MICROSOFT'S WEBSITE IS WELL WORTH A VISIT FOR CE USERS**

suite which you boot up from the floppy and follow the menus. It works on any PC with a serial port and a floppy. It's simple, fast and very reliable, ie it backs up everything.

The name gives it away: it's a compact Linux on a floppy with Pilot backup programs. It's written by Rene Witte <[witte@acm.org](mailto:witte@acm.org)> and

email of the noble reader who supplied this info, but thank you anyway.

### ■ Penguin power

On the subject of monochrome, here is a little something from the Penguin part of the world. Bob Towers <[bob.towers@lineone.net](mailto:bob.towers@lineone.net)> writes: With my Pilot I religiously do the hotsync thing every day before I leave work. Then the

batteries died on me 20 miles from the backup at work and one mile from a new set of batteries. I lost everything on the Pilot but, no problem, I'll hotsync all the stuff back on to it from the work machine. Except – as I later discovered – hotsync is not a complete backup! I lost a spreadsheet program and all its data.

Anyway, I decided I needed a proper back-up program for the Pilot and came across Penguin backup, a single floppy

the home page is <http://www.ipd.ira.uka.de/~witte/pilot/backup>.

## PCW CONTACTS

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