Key ideas and importing

Mark Whitehorn asks whatever happened to the Microwriter and revisits data transfer.

Does anyone remember the Microwriter Agenda with its chord keyboard, or have any information on where to find add-ons? Mark Allen (webdesign@dtn.ntl.com) is trying to track some down.

For anyone who doesn't remember this strange machine, it was a device to be used with one hand: it had five keys (one for each finger and the thumb) and each letter was formed from combinations of these keys (screenshot 1). For instance 'a' was typed with the thumb, little and middle fingers, a combination that represented the outline of a capital A. People who liked the Microwriter (such as our resident Unix expert Chris Bidmead) liked it a lot, citing fast text entry and smacking their foreheads at those still pecking away at QWERTY keyboards.

It failed to catch on, but one of the original designers of the device, Chris Rainey (Chris@bellaire.demon.co.uk) was alive and well last time I heard. At that time he and a colleague were developing a keyboard wedge that enabled users to input data to a PC in the same way. The unit was about 110mm square and 30mm high (to the top of the keys) and plugged into a standard DIN five-pin keyboard socket of an IBM PC. The standard keyboard piggy-backed onto the plug, allowing either device to be used for key entry

Screenshot 1 The Microwriter with the special input keys highlighted

It was called Cykey as a tribute to the late Cy Endfield, who was co-inventor of the Microwriting system with Chris. Whether this got off the ground is unclear but, at the time of writing, more details can be found on the BOOG online homepage at http://easyweb.easynet.co.uk/~len/boog. BOOG? You mean you haven't heard of the British Osbourne Owners' Group? Shame on you.

It had five keys and each letter was formed from combinations of these keys

Importing data

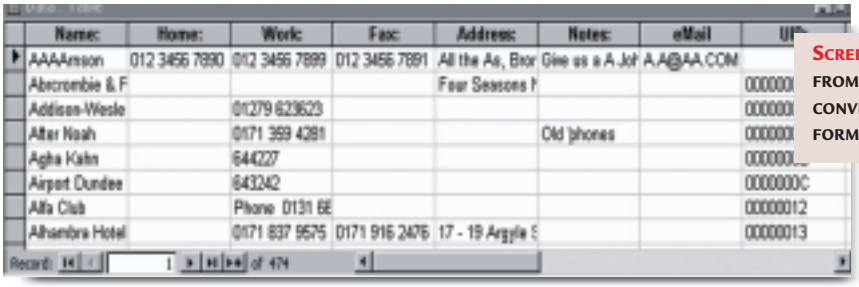
In the January issue I started to look at the joys of moving data between PDAs. I said I'd complete the topic in February, but that column filled up before this could be slotted in so, belatedly, here it is – my apologies for the delay.

As I said at the time, the problems (and their solutions) have more to do with the applications concerned rather than with the flavour of PDA that you are using.

In response to a request from George Hendricks I was moving a data file (in fact a file from the application called Data) on the Psion 5 and the destination was the Data app on a Psion 3 (Psion doesn't provide an automatic way of making this transfer).

We had extracted the data from the Psion in two ways:

- The data source file was moved to the PC using PsiWin. This offered to convert the file to a PC format and I chose Access. The data now appears in an Access table (in this case called Data – see screenshot 2).
- The same data was also exported from the Data application as a CSV (comma separated value) file. This CSV file was then transferred to the PC (without using PsiWin to perform the conversion) and imported into Access as a table called DataOut (screenshot 3).



Name:	Home:	Work:	Fax:	Address:	Notes:	eMail	UID:
AAAAmson	012 3456 7890	012 3456 7899	012 3456 7891	All the As, Bror	Give us a A Jol	A.A@AA.COM	
Abercrombie & F				Four Seasons H			000000
Addison-Wesle		01279 623623					000000
After Noah		0171 359 4281			Old phones		000000
Agha Kahn		644227					000000
Airport Dundee		643242					000000C
Alfa Club		Phone 0131 6E					00000012
Alhambra Hotel		0171 837 9575	0171 916 2476	17 - 19 Argyle S			00000013

Record: 1 of 474

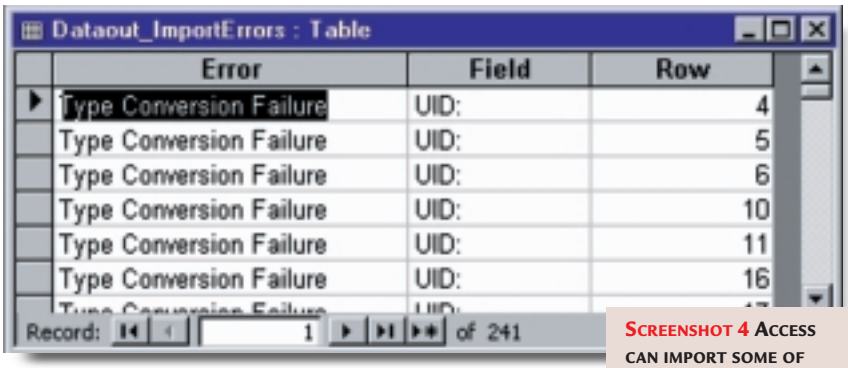
Screenshot 2 Data from the Psion converted to Access format by PsiWin

One of the 'dangers' of the second route is illustrated in screenshot 4 (see next page). This shows that Access failed to correctly import some of the data from one particular field – UID. This field is used in Psion 5 databases to uniquely identify each record. The field contains

Name:	Home:	Work:	Fax:	Address:	Notes:	eMail	UID:
AAAAmson	012 3456 7890	012 3456 7899	012 3456 7891	Alperton,	Give us a A Jol	A.A@AA.COM	
Abercrombie & F				Four Seasons H			4
Addison-Wesle		01279 623623					8
After Noah		0171 359 4281			Old phones		
Agha Kahn		644227					
Airport Dundee		643242					
Alfa Club		Phone 0131 6E					12
Alhambra Hotel		0171 837 9575	0171 916 2476	17 - 19 Argyle S			13

Record: 1 of 474

Screenshot 3 The same data moved as a CSV file and then imported into Access



Screenshot 4 Access can import some of the data incorrectly, which can produce problems – but these can be overcome

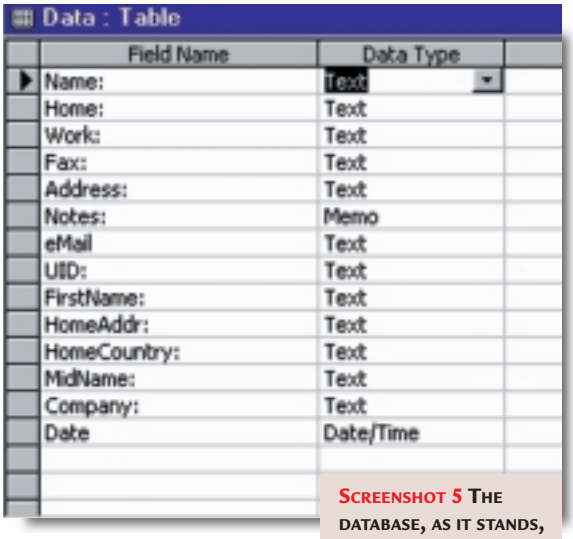
numbers in hex such as 00000004, 00000029 and 0000002E. The import wizard looks at the data in the field and decides what sort of data it is.

Clearly, in this case it has looked at the first record, seen a value such as 00000029 and decided that this is a number field. Of course, in the broad scheme of things this is a number. It is a hexadecimal number equal to 43 in decimal. The trouble is that the import wizard has set the data type of the UID field as 'number' and when values such as 0000002E are imported, the number field refuses to accept them because it sees the E part of the hex number as a text character. It is a case of 'for hex, read text throughout'.

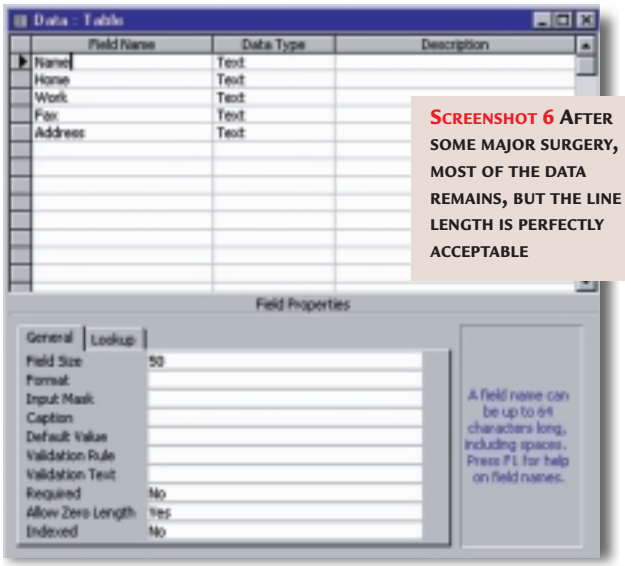
We can fix this by deleting this table, re-running the import wizard and manually changing the data type for this field to text. But I won't bother, because the other problem I have is that the database currently has a record length of 14 fields by approximately 50 characters, equalling about 700 characters (screenshot 5). The target application (Data on the Psion 3) only imports lines equalling less than 255, or at least, that's what it says in the manual. So I pulled the data into Access in order to shorten the lines and, since the UID field isn't required in the target, it is about to be deleted anyway.

In my case, most of the fields had been so little used that some serious pruning could be carried out while leaving 99.9 per cent of the data intact. The field sizes shown in screenshot 6, reading from the top, are 50, 20, 20, 20, 20, 100 – which is well inside the limit.

After that, select File, Save As/Export (screenshot 7 opposite) and Access provides a file export wizard (similar to the import wizard) where you can configure the output. It is worth selecting the option that adds the field names as the first line of the file.



Screenshot 5 The database, as it stands, is going to generate lines that are too long to import into Data on the Psion 3



Screenshot 6 After some major surgery, most of the data remains, but the line length is perfectly acceptable

All that remains is to connect the Psion 3, drag the file to the Psion, allow PsiWin to convert it to a Psion Data file and, once the file has been moved and converted, open it with Data.

The bottom line is that, if you are going to move data between PDAs, use a converter if one is available. If not, text files are a good carrier and you can use tools such as Access to tidy the data as it passes through the PC.

Get with the program

A while ago I moaned about the lack of a built-in programming language in Windows CE. Some form of OPL has always come with members of the Psion family and its easy availability has led many people to write a lot of good software. Tools are certainly available for programming WinCE machines, but none are provided as standard with the kit: anyone wishing to program must first locate, purchase, download and install the chosen package.

John Parr (chromedome@shockwave.nwnet.co.uk) wrote in to recommend visiting www.aristar.com, which has developed something called Dialect. According to John this allows you to write programs with a normal text editor or the integrated development environment. You can define a GUI front for your programs with the full array of text boxes, labels, command buttons, radio buttons, drop-down menus, establish network connections and do file handling. The basic version is free for non-commercial uses and the licensed version is only $99 (£61.88). But John says the best thing about it is that the code can be transported to Win9x & NT, because Dialect is also available on these platforms. Once ported to these, Dialect can generate a free-standing EXE.

My own current favourite is Visual CE

Wonders of the web

Remember, remember, the fifth (version) of DeVender. Mark Wheadon tells me the PDA version of the arcade game Defender has been ported to the Psion Revo. www.rmrsoft.com/epoc/defend.htm.

Penguin power
Simon Wright (simon@pogner.demon.co.uk) reports problems reaching Penguinbackup, that wonderful backup utility for Palm Pilots. This is stored on a single floppy disk and works on any PC with a serial port and a floppy. It's a compact version of Linux, complete with Pilot backup programs. Boot up from the floppy and follow the menus.

Unfortunately, due to an errant dot in the January issue, the site address was given as www.ipd.ira.uka.de/~witte/pilot/backup, which doesn't work because the address is: http://wwwipd.ira.uka.de/~witte/pilot/backup/. Note the lack of dot between www and ipd.

Another URL
Russell Howe (rhowe@mindless.com) recently discovered the site www.palmtop.nl/ where, he says: 'It seems like they do quite a lot of PDA software and the page www.palmtop.nl/free.html is quite good. They even have a Spectrum emulator which means an extra "6,600 games for your Series 5, Series 5mx or Geofox"!'

4.0 from Syware (www.syware.com) because it has excellent hooks into databases. Features include support for Pocket Access, a good range of data types, as well as an ODBC driver for accessing data in CE devices from Microsoft Access, Lotus Approach, Delphi and Visual Basic.

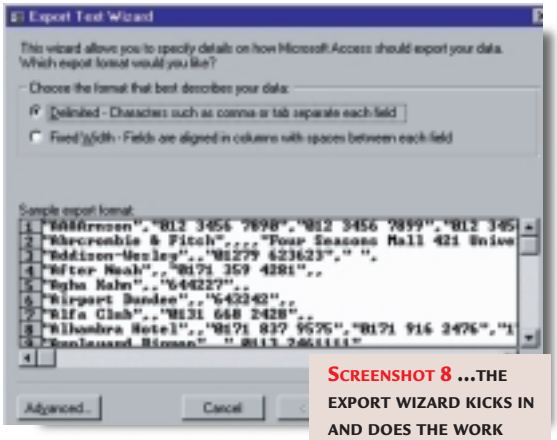
To slot or not

Dave Lucas (Dave.Lucas@landinst.com) writes that he is looking to connect storage devices to a Casio E-105 palmtop, but that it only has 'a CF+ interface rather than the more useful PC Card interface'.

The Casio has a Type II slot, and the only difference between this and the Type I is that the Type II is physically slightly deeper. So, Dave is free to fit any CF Type I or Type II Flash RAM card.

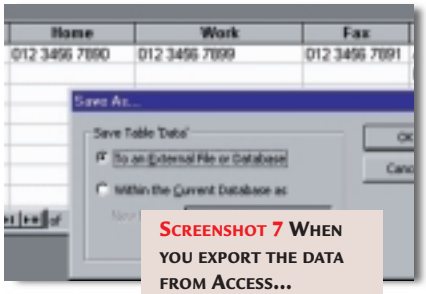
Of course, the perfect answer ought to be an IBM Microdrive. This whizzo miniature hard disk slots into a CF Type II slot and provides a whopping 340MB of storage – which equates to over 600 high-resolution pictures from a digital camera, for instance. However, there is one problem...

The Microdrive is a Type II device and, even when fitted into the correct Type II slot, it is a tight fit. IBM states categorically that it should not be fitted into a Type II slot if there is no manual ejection mechanism for removing the drive and, unfortunately, the Casio E-105 lacks one of these.



SCREENSHOT 8 ...THE EXPORT WIZARD KICKS IN AND DOES THE WORK FOR YOU

Now it turns out that the Microdrive has a tiny ridge on it which looks like it's just big enough to be levered with a fingernail. In the interests of science, I took my E-105 in my hands and popped in a Microdrive. It worked perfectly and provided the expected huge data store. Then, with bated breath I applied my fingernail and... the drive slid painlessly out. So it worked for me, but the fit is tight and there is no guarantee it will work for you. Since IBM explicitly suggests you don't do this; if asked whether I can explicitly recommend the idea I would have to say (with shades of HAL): 'I don't think I can do that Dave.'



SCREENSHOT 7 WHEN YOU EXPORT THE DATA FROM ACCESS...

Caught speeding

My recent speed testing of the entire range of Psion 3s and 5s elicited these extra results from Jonathan Quirk (jonathan@quirk.force9.co.uk). He dug out his retired Psion Organiser II LZ. Luckily he had only recently recharged its NICAD PP3 so was able to type my program listing, Penguin. (It says much for the portability of OPL that he only had to discard the EndP statement for the procedure to compile and run.)

The figures he recorded were:
Write 1,000 statements: 499 seconds
Perform 100,000 increments: 590 seconds
which shows that writing to the LCD – even when it is only four lines x 20 characters – is a time-consuming business. The processor is Hitachi's HD6303X, which Jonathan thinks was a low-power (CMOS) version of the Z80 with some additional capabilities.

Database delights

Following my comments a while ago concerning the slow running of databases on my Psion Series 3, Steven Pemberton (Steven.Pemberton@cwi.nl) pointed out, for anyone who wasn't aware of the fact, that sorting records in the Psion database slows down retrieval speed. This is entirely counter-intuitive for database freaks, who are brought up on the idea that indexing records enables them to be viewed in order (alphabetical, numerical, whatever) and also increases the retrieval speed.

PCW CONTACTS

Mark Whitehorn welcomes your feedback on the PDAs column. Contact him via the PCW editorial office or email pda@pcw.co.uk