Store plan

SYNCHRONISING YOUR CONTACT DATA MEANS THE RIGHT NUMBER WILL ALWAYS BE AT YOUR FINGERTIPS. TONY DENNIS EXPLAINS.

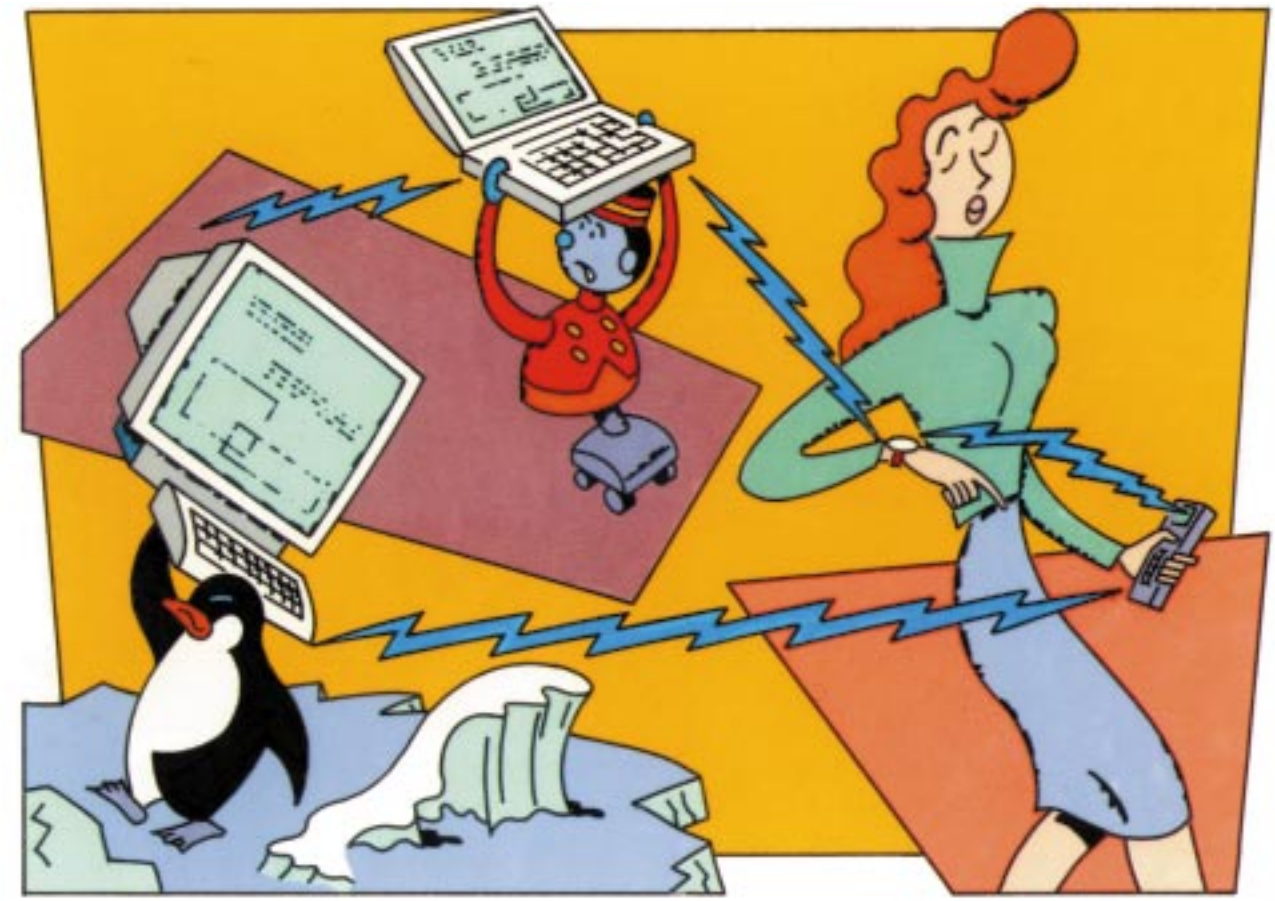

Illustration by Colin Mier

Have you ever searched desperately for that important telephone number but simply couldn't remember where you'd stored it? Was it on your desktop PC? In your PDA? In your mobile phone? Or in your wristwatch? Don't panic. With a little effort you can synchronise the data in all four devices so the right number is always at your fingertips.

What you really want is 'synchronicity', a facility which removes the problems associated with storing multiple versions of the same information in separate places. The trick is in not only possessing the right software tools, but also finding an easy way to link different devices together. Currently there is a movement towards creating a *de facto* industry standard format for holding information about personal contacts, plus a standard for swapping diary data. Other standards, such as Bluetooth which covers wireless data exchange, are seeking to establish a common means for establishing a data connection.

What is required is a central repository for all your name and address information which you carefully maintain so it only holds current data. The closest we've come to achieving this objective is vCard, a standard means of storing a business card in an electronic format [*p119*]. vCard is fine if all you want to do is zap your business card to somebody else, or attach your card to an email message so the recipient can easily import it into his/her addressbook. Unfortunately, you still need some means of 'managing' your addressbook and electronic diary.

Consequently you'll find yourself forced to standardise on one particular information manager (PIM), be that Symantec's ACT!, AVG's Goldmine, Lotus Organizer or Microsoft's Outlook. Why? Let's assume, for example, that you possess a 3Com PalmPilot as well as a desktop Windows 98 machine. They both hold email and telephone number address information. If your only software tool is a file conversion utility, then every week or so you need to laboriously convert one format into the other in order to synchronise the two machines.

By contrast, if you can, use a utility such as IntelliSync for Pilot from Puma Technologies to keep the two machines in sync. This kind of synchronisation software compares data held by the PDA with data held by the PC. It allows the user not only to link two similar applications together (email package with email package, for example) but also to decide which machine takes precedence. You might decide that records from the Pilot overwrite data held on your desktop.

The snag is, you still have to standardise on one particular application since packages like IntelliSync can only support a range of rival products such as Lotus Organizer, Starfish's Sidekick, and Now's Up-to-Date. Furthermore, Puma has some serious rivals. Smart Ideas Software has decided to specialise with its Data Anywhere offering, in providing synchronicity between Windows CE based machines and desktop database programs like dBase and Microsoft Access. Starfish offers TrueSync, a web-aware technology aimed at providing synchronicity between a host of different devices [*p120*]. Significantly, Motorola thought this technology was so good, it bought the company for an undisclosed sum in July 1998. Until now, the most visible application for TrueSync has been the Rex PC Companion from Franklin Electronic Publishers, akin to a PDA in PC Card format which can slip into a suitable PCMCIA slot. But the latest incarnation of this product is the Rex Pro, jointly developed by watchmaker Citizen and Motorola (but marketed by Franklin). With 512Kb of memory it can store 6,000 records compared to only 3,000 in the original.

Pictured, this page An alternative to the D127 modem is the SH888 Ericsson handset which has an infra-red port and modem built-in

How is synchronicity achieved? In the case of GSM phones, the data is stored on a smart card known as a SIM (Subscriber Identity Module). Most leading handset manufacturers can supply a small utility to edit the numbers held by the SIM, but there's no interchange with leading PIMs. Enter Paragon Software, with FoneSync. Essentially FoneSync allows you to create a GSM phone number address book from scratch or by dragging and dropping names from popular Windows-based PIMs. The point here is that the links between contact information held in your favourite PIM can be made permanent, so changes made in, for example, Goldmine will be reflected in your FoneSync directory. Next time you download the directory to the phone, any changes will be included.

An alternative is the Timex Datalink, a wristwatch that can read bar codes displayed on a PC's screen and thereby store the latest names and appointments you've keyed in via your PIM.

vCard and vCalendar systems

There are two 'open' standards, vCard and vCalendar. Both define the formats for exchanging personal data found on business cards and data found in calendar/scheduling applications. These technologies were originally developed by the Versit consortium (founded by Apple, AT&T (Lucent Technologies), IBM, and Siemens) but in December 1996 the rights to Versit's Personal Data Interchange (PDI) technology, which includes the specifications and reference software for both vCards and vCalendars, were transferred to the Internet Mail Consortium (IMC). The IMC works closely with standards organisations such as the IETF (Internet Engineering Task Force) so the vCard and vCalendar specifications, as well as the reference software, are distributed freely. Therefore, vCard and vCalendar are the closest thing we have to standards that actively promote synchronicity. The idea is, for example, that owners of different types of PDA and portable computers can quickly exchange business card data via the vCard format. These standards have been supported by the likes of Lotus and Microsoft, who supply vCard readers for Organizer and Outlook, respectively. The only real major omission appears to be support from Psion.

TrueSync: anatomy of a typical synchronicity engine

As an example of a typical synchronicity engine, let's look at the five key components of Starfish's TrueSync. Why the technology proved so attractive to Motorola then becomes more clear.

- **Micro-Applications**: include a calendar, address book, to-do list, memo, world clock and preferences toolkit. These are the utilities which would sit inside the mobile phone, PDA, watch, etc.
- **Micro-Framework**: allows the development of applications suitable for wearable devices. Significantly it enables the porting of TrueSync applications to real-time operating systems including (potentially) Symbian.
- **Desktop**: the PIM application designed as a desktop companion to TrueSync devices. It directly synchronises data between the desktop and TrueSync devices, and allows information to be imported from popular desktop organisers. It could be Starfish's own offering or something like Outlook 98.
- **Synchronisation Engine**: the core TrueSync technology that provides synchronisation of calendar, address book, to-do list, memo and other information between multiple sources. Additionally, using a multi-point synchronisation methodology allows users to directly synchronise information among more than one device, including servers, simultaneously. This provides TrueSync's true advantage over rival offerings.
- **Server**: provides multi-point synchronisation services between wireless devices, desktop PCs and other servers including web-based or telecomms (i.e. GSM) systems.

Timex developed this technology in conjunction with Microsoft, so it suits those who follow a Schedule Plus or Outlook Express/97/98 route.

Aware that the standard Datalink 150 watch looks a tad nerdy, Timex has just introduced the Ironman, a watch aimed at the more sporty types. The major difference between the two is the Ironman boasts a host of stopwatch functions. The company has even developed a notebook adapter which uses infra-red to communicate with the watch, since LED screens can't support the bar code approach. The only disappointment is the Ironman holds only 10 appointments and links only to Outlook 98 at present.

The last great obstacle to overcome is selecting a suitable way to transfer the data. The most obvious candidate here is the Bluetooth standard supported by the likes of Intel, Toshiba, IBM, Nokia, Ericsson and Motorola. Bluetooth provides for wireless radio (RF) data transfer between compatible devices, and support for synchronicity between devices is a salient feature.

According to TDK Systems business development manager, Nick Hunn, the first version of the Bluetooth standard will probably miss its CeBit target date — although the likes of Ericsson will show a 'Bluetooth'-compatible headset — chiefly because many RF issues have still to be resolved. There's security, for eample: if somebody's using a Bluetooth to listen to their portable CD player, you don't want them to suddenly be able to hear the conversation on your Bluetooth-enabled GSM phone.

This breathing space has given extra impetus to IrDA (the infra-red standards body). There are IrDA standards in place enabling infra-red communications to operate at 4Mbit/s rather than the original 115Kbit/s. Hence one supplier, Clarinet Systems, has developed EthIR LAN, which will enable notebooks and PDAs to participate on a standard Ethernet LAN without the need for additional hardware. Plus there's infra-red already built in to GSM phones such as the Nokia 9000I Communicator and the D127 modem from Ericsson, which slots underneath a range of its existing handsets.

▲ THE TIMEX IRONMAN WATCH BOASTS A SPORTY IMAGE BUT CAN STILL HOLD PHONE NUMBERS AND 10 APPOINTMENTS FOR YOU

Other alternatives to both technologies include CompactFlash cards from SanDisk (available through Portable Add-Ons). These memory cards are small enough to go inside cameras and mobile phones, yet can fit into a standard PCMCIA port via an adapter. For owners of the original PalmPilots (which don't have an infra-red port), Option has come up with a similar solution to the D127 — the Snap-On, which clips underneath the Pilot but uses a cable to link to a variety of GSM phones.

Synchronicity very definitely does have its benefits. Not only can your favourite telephone numbers be available from your watch, PDA, GSM phone or portable computer, but they can be sitting inside your desktop PC too. Link your standard BT or ISDN line to something like a Pace modem which supports UK CLI, and you can see who's calling you. Better still, if you download your diary of engagements from your desktop to your Datalink watch, you can be in the sauna and still be reminded in time not to miss that important meeting! ❐

PCW CONTACTS

For further information, contact the following web sites:

www.starfish.com
www.imc.org/pdi
www.argosoft.com/vcard.html.