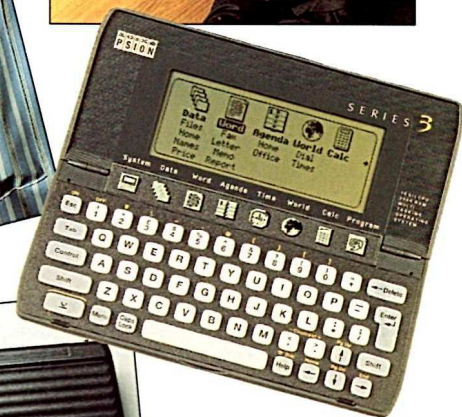
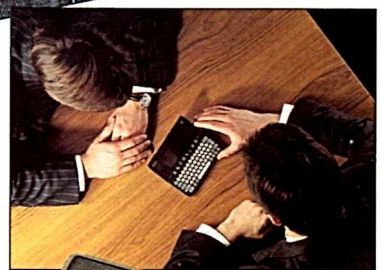
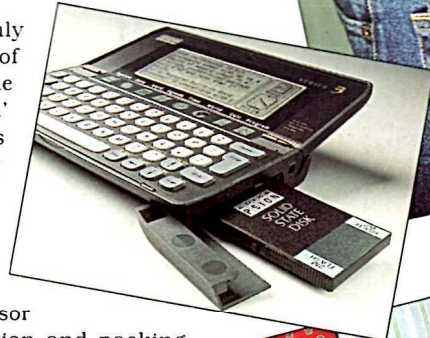
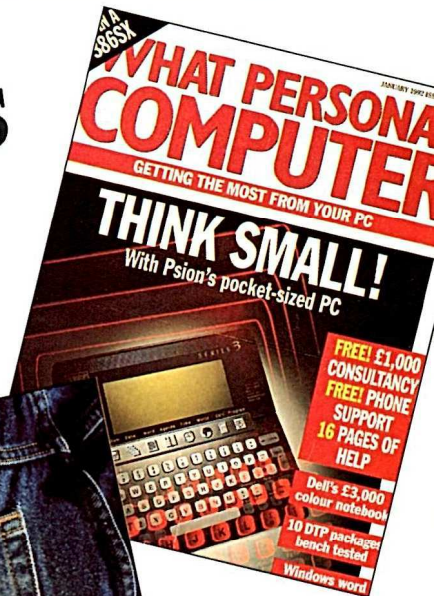


# If only all computers were this big

Psion's ground-breaking Series 3 pocket computer is taking off. In the ten short months since its introduction, it has turned all previous notions about the usefulness of pocket computers upside down, pioneered the extensive use of graphics in a palmtop system and won awards all over the world for its powerful and innovative design.

Despite its tiny size - weighing only 265 grams and with dimensions of just 165mm by 85mm by 22mm - the Series 3 is in no way a 'cut-down' computer. It is truly the PC that fits in your pocket. It uses the familiar MS-DOS file format to handle the information you store.

The Series 3 also employs the latest NEC implementation of the Intel 8086 16-bit computer processor family that started the PC revolution and packing enough power to out-perform many desktop systems.



**In this Issue:**

Page 4:  
Development kits for HC & Series 3

Page 11: Pocket Modems

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## Note from the Managing Director

### SIBO: The next generation

1991 was a challenging year for Psion, and for users of our products. In the midst of a deep recession, we launched two major new handheld computer products - the tough, flexible HC and the innovative, professional Series 3 palmtop, and moved to strengthen further both the MC mobile computer and the Organiser II ranges.

As a company, we are aware that not all of these efforts proceeded smoothly. Software and upgrades for the MC did not appear as quickly as we would have liked, while early versions of the Series 3 did suffer from one or two manufacturing problems.

We took quick and decisive steps to remedy the problems resulting from difficulties in manufacturing this complex personal computer, investing some £3/4 million in our first dedicated production facility at Greenford. Here we are able to monitor manufacturing quality even more closely and implement improvements quickly.

#### A long-term investment

The development of the MC, HC and Series 3 systems represent a long-planned, strategic technology investment that will benefit the users of all Psion products. All use the same SSD storage systems, the same underlying operating system and benefit from our work in creating new software and peripherals.

The synergy between these products is no accident - they are all built on what we call the 'SIBO' architecture, on which work began over five years ago.

It included a number of key design goals for a complete range of related products - and required considerable research and

development investment. The fruits of that work were first evidenced in the innovative MC range of mobile computers and then in last year's launch of the flexible HC.

So when it then came time to design the Series 3, we were able to take all the experience we have gained in mass market handheld computing with the Organiser II and combine that with the huge technology advances (such as SSDs, Flash memory, and the graphical user interface) pioneered in the MC and HC ranges and use them to take this great step forward.

#### Graphics are crucial

The development of the graphical user interface (GUI) was crucial. At Psion, we recognised as early as 1988 - some two years before the release of Microsoft's Windows 3.0 graphical operating environment - that graphics were the way ahead for personal computer users.

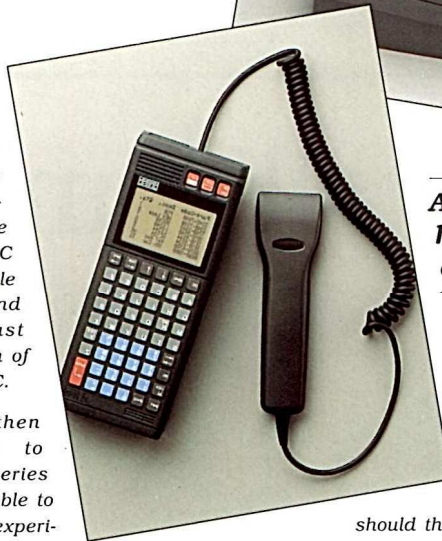
We further concluded that within a few years, a graphically-controlled computer would become the norm for desktop systems - rather than the exception.

From this came a determination that users of mobile computers and handheld systems should not have to sacrifice their preference for a graphical user interface - and thus the Series 3 has what is the most advanced graphical user interface of any handheld personal computer anywhere in the world.

It was a massive undertaking and a major technical achievement and it represents some 60 man years of development work. It is also solid, reliable and has been implemented on a small and low-cost machine.

MC - the first of the SIBO family

Advanced graphical interface on a handheld computer



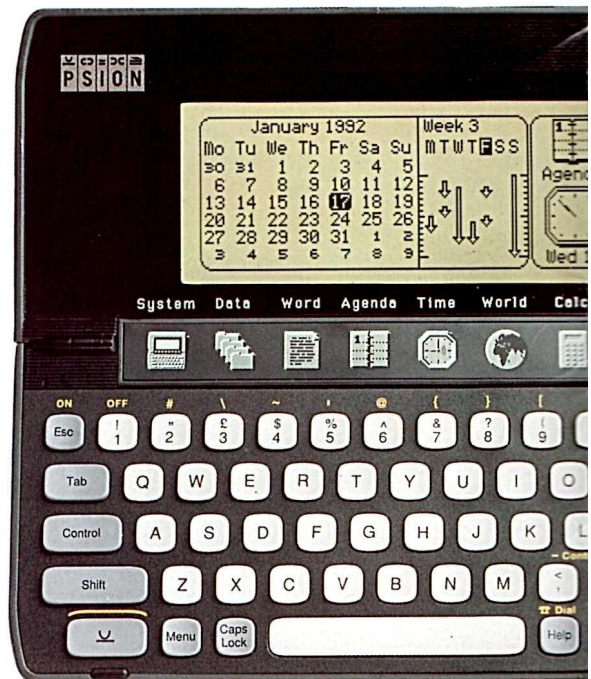
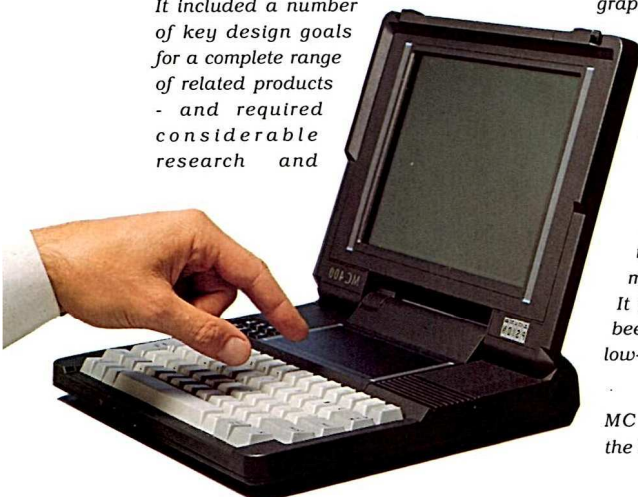
#### A revolution in handheld computing

Thus the Psion Series 3 represents the 'third generation' of handheld personal computing. With the Organiser I and Organiser II, Psion was at the forefront of both previous generations - and it

should thus come as no surprise that the company is pioneering this completely new category of palmtop personal computer.

Unlike the 8 bit variations on Psion's Organiser design produced by competitors through the late 1980s and early 1990s, the Series 3 is an order of magnitude more powerful. It is a revolutionary, rather than evolutionary, handheld system.

The Series 3 builds on the solid roots laid down by Psion's work in developing and marketing the Organiser, which is still a crucial part of the company's product portfolio. The five-year journey from Organiser II to Series 3 has not always been smooth, yet little was thrown overboard. It was an enormously ambitious thing we undertook, and with hindsight, it is not surprising that it took longer and was harder than we expected.





# Series 3 - Built by computers.

**The Psion Series 3 is just as much a result of innovation in manufacturing as it is in design. While many users will marvel at the number and range of features packed into the Series 3, experts in consumer electronics manufacturing might well find themselves raising an eyebrow when they look "under the hood" of the machine.**

Psion has not only employed state-of-the-art circuit board manufacturing techniques in producing the Series 3, but has also established its own hardware manufacturing facility - in Greenford, Middlesex - for the first time.

At the heart of this new operation is the £500,000, robot-controlled surface mount assembly (SMA) line, where a complete Series 3 printed circuit board (PCB) can be produced every 70 seconds.

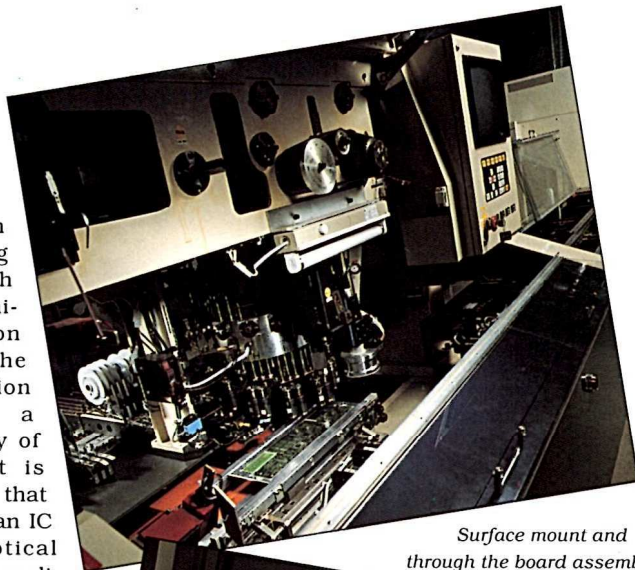
The SMA line is highly automated and places the small surface components onto the board, without any human intervention, after which an "in-circuit test" of the board is carried out. After this "through the board" components have to be added by hand and a functional test is carried out - testing new parts which have been added and re-testing those smaller components first inserted on the SMA line.

Ultra-modern manufacturing techniques, such as optical recognition, are used on the SMA line. The optical recognition system holds a

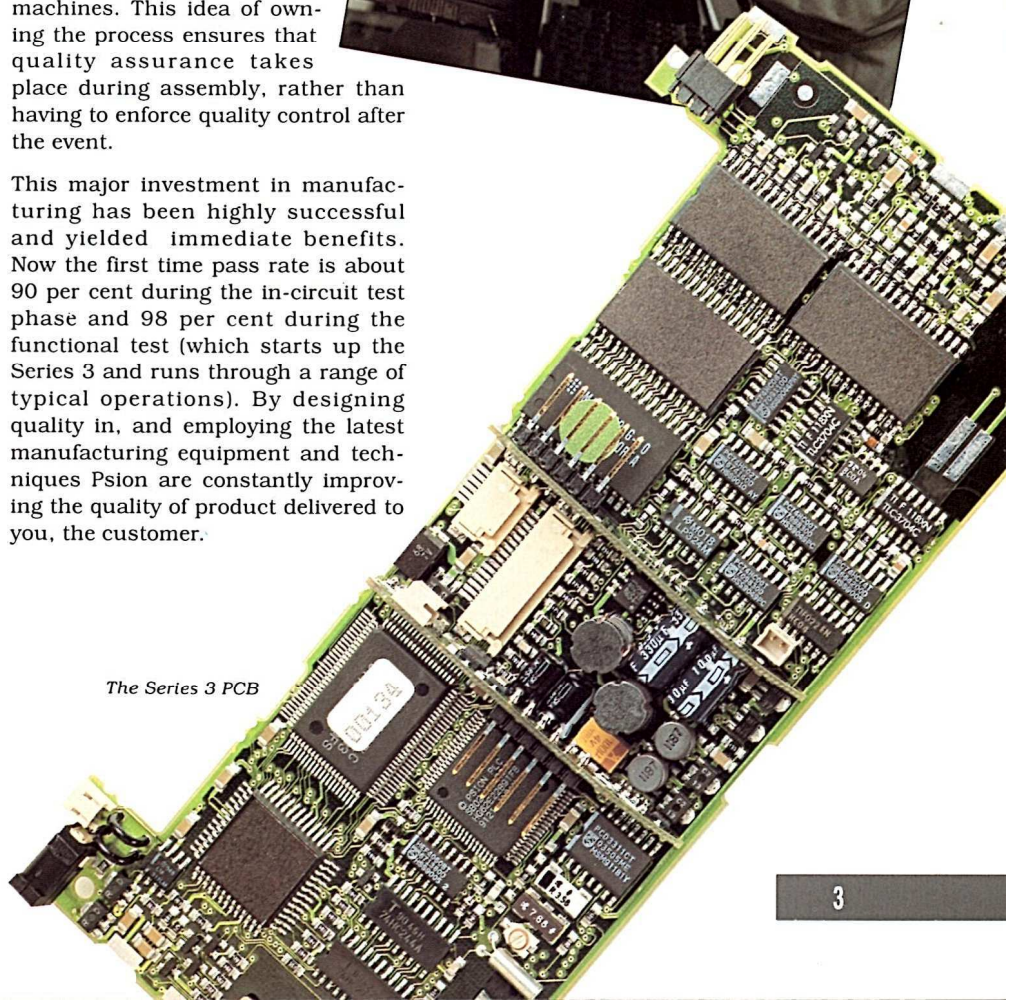
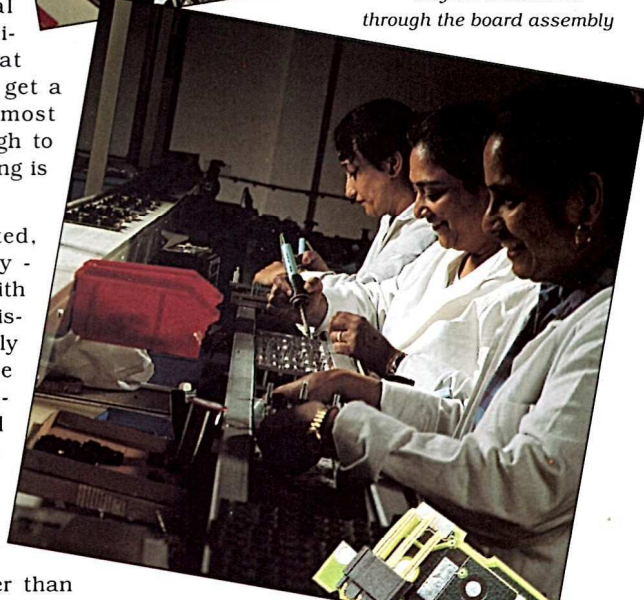
"picture" in its memory of what each component is supposed to look like - so that if the SMA line picks up an IC with bent legs, the optical recognition system will immediately know to disregard that component and go back to get a "good" one. In this way, almost every board that goes through to the next stage of manufacturing is guaranteed to be failure free.

Once the PCBs are populated, they go on to final assembly - where they are married up with the plastic casings and LCD displays at five identical assembly cells. Each cell is responsible for building completed, working Series 3 machines, and thus "owns" the manufacturing process for that batch of machines. This idea of owning the process ensures that quality assurance takes place during assembly, rather than having to enforce quality control after the event.

This major investment in manufacturing has been highly successful and yielded immediate benefits. Now the first time pass rate is about 90 per cent during the in-circuit test phase and 98 per cent during the functional test (which starts up the Series 3 and runs through a range of typical operations). By designing quality in, and employing the latest manufacturing equipment and techniques Psion are constantly improving the quality of product delivered to you, the customer.



*Surface mount and through the board assembly*



*The Series 3 PCB*



## A smooth path to writing applications

**Today's personal computer software is becoming more and more graphics based, which on the one hand looks so simple and easy to use that many users will think it must be easy to write software for. But, on the other, the very nature of the graphical user interface (GUI) dictates that all software must be written in a certain style and following certain common command conventions.**

When that sophisticated GUI is part of a computer as small as the Series 3 or HC, the need to follow guidelines is even more crucial. It is therefore essential that proper development tools be available for third-party

software authors to create applications for these systems.

The Psion HC range, in particular, offers tremendous potential for corporate systems developers. It is unique in being multitasking - so that while it may be accepting and printing out a message from company headquarters, it can also be accepting data entered on the keyboard by the operator. This provides far greater flexibility for those designing software for the HC than anyone stuck with programming a DOS-based handheld computer. The operating system in the Psion HC is designed by mobile computer specialists for mobile computer users, it is not a desktop computer design bolted onto a squeezed-down PC.

### Choose your weapons

To meet the needs of developers, Psion has created a number of new Software Development Kits (SDKs).

These allow you to create sophisticated, graphical applications for either the HC or the Series 3 using Psion's own OPL programming language on the machines themselves, or on an IBM-compatible PC using the popular C development environment.

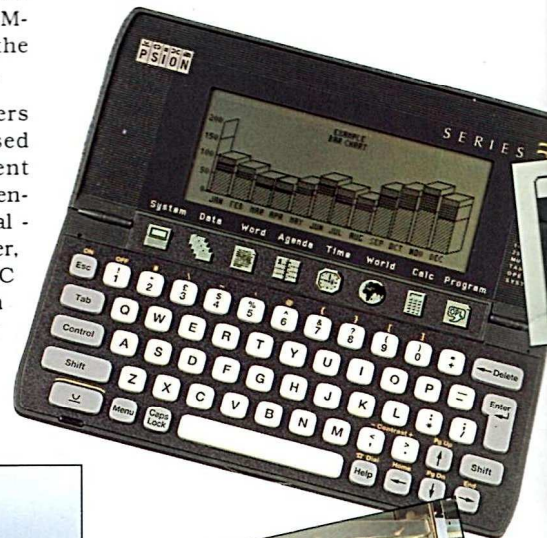
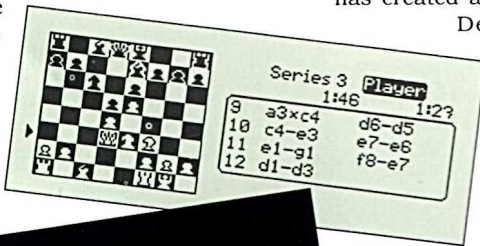
Recognising that not all developers have the same needs, the C-based SDK is available in three different configurations. The most comprehensive - the SIBO C SDK Professional - includes the TopSpeed C compiler, specific support for both the HC and Series 3 environments, an improved source-level debugger as well as the source files to the C library.

For slightly less money, the price-sensitive C developer can now have the SIBO C SDK Standard, this contains everything you get in the professional version except the TopSpeed TechKit/Assembler and C library sources.

Finally, a very low-cost version of the SDK, known as the SIBO C SDK Documentation is available. This omits the entire TopSpeed suite and Psion C library source files from the standard package.

### Heavyweight software for a lightweight computer

We have also moved quickly to develop new applications for the Series 3, and each of these packages is not compromised by the fact that it runs on a system which fits in the palm of your hand. The Psion Series 3 Spreadsheet, for example, includes file compatibility with Lotus 1-2-3 WKS, WK1 and DIF file formats - as well as the ability to handle Lotus 1-2-3 functions, tables, databases and business graphs.







## Professional word-processing comes to the MC

Multiple worksheets can be loaded at once - and data may be cut and pasted between them, as well as into the Series 3 Word Processor. You may run spreadsheets of up to 256 rows by 8192 columns on the Series 3 Spreadsheet - as well as produce two and three-dimensional bar charts, stack bars, pie charts and line graphs.

The Psion Professional Finance package, meanwhile, is designed as a problem solver and analyser for those involved in the world of finance. It evaluates a variety of financial statistics, including the impact of cashflows, depreciation, rates of return, offers reverse Polish notation and has a comprehensive - and extendable - set of conversion tables.

Realising that life isn't all work, we have also developed a version of our three-dimensional chess software to run on the Series 3 - with playing levels from beginner to championship.

Psion is also actively encouraging third-party developers to create applications for the Series 3 with a comprehensive programme to support developers. For further information on this support contact the Psion marketing department.

complex search and replace) and the ability to design stylesheets. This powerful application is now standard with all Psion MC400 systems.

When considered in combination with the MC400's highly efficient use of battery power - yielding an average of 50 hours of operation per set of eight AA batteries - the system has to be highly compelling to anyone who does a great deal of word processing while on the move.

### Keeping it in the family

If the specifications for this product sound a little familiar to Psion Series 3 handheld computer users, that should not be surprising. The MC Word Processor is fully compatible with the Series 3 word processor and offers all the same functions, plus the extra facilities inherent in running it on a larger, full-screen mobile computer.

Using the 'Link' command within the Psion MC Word Processor, you can cut and paste data from the text processor, calculator - and even the Psion MC Spreadsheet. Also within the menu commands, you will find more comprehensive dialogue boxes, and the ability to cut and paste within the outline, something that not even the Series 3 word processor is currently able to do.

### Freedom of the press

Meanwhile, a wider choice of supported printers and printer fonts means that you need not worry about transferring your word processed documents to a desktop PC before printing them. Among the printers supported are the Canon BJ family of inkjet printers, the IBM ProPrinter range, Epson's classic dot matrix printers - as well as both HP LaserJet and PostScript laser printers.

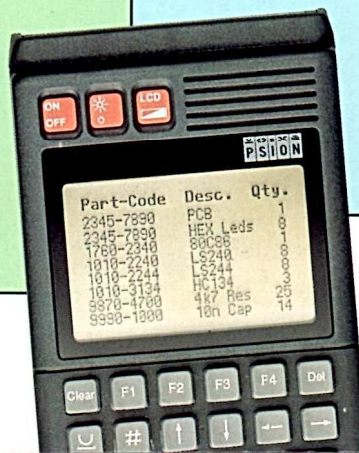
If you do decide, to move your document to a desktop PC for further work - you will find that your choice of fonts and page layout are preserved within the word processed file from your MC, provided that your PC's word processing package supports Rich Text Format (RTF).

E5	124					
	Jan	Feb	Mar	Apr	May	
Series 3	1,000	1,210	1,464	1,772	2,144	
3 Link	300	363	439	531	643	
SSD 2MB	50	61	73	89	107	
SSD 1MB	70	85	102	124	150	
SSD 512k	110	133	161	195	236	

## Why develop for the HC?

There are dozens of good reasons for choosing the Psion HC multitasking handheld computer to develop your company's mobile computing applications. Here are just a few reminders of what they are:

- ◆ HC is highly configurable, and has a modular design, which can be customised to suit individual requirements. Keyboards can be either alpha numeric or numeric only, and expansion modules can be added with peripherals such as scanners, wands and magnetic card readers.
- ◆ It is weather proof and ruggedised.
- ◆ Uses fast, reliable Flash Solid State Disks (SSDs) for storage. SSDs offer high data security.
- ◆ High power rechargeable battery packs can be used to drive peripherals.
- ◆ A high resolution graphics screen provides up to 33 characters by 9 lines - with a wide viewing angle and high contrast. A switchable backlit option is available for poor lighting conditions.





# Tough and ready for a rough job

**At a time when environmental issues such as drought, pollution and global warming are right at the top of the world agenda, so concern for maintaining and improving the quality of the water we drink has never been more highlighted.**

To ensure that the highest possible standards of water quality are maintained at all times, several of the UK's major water authorities have developed Psion based systems.

### Reliability the key for Severn Trent

Repairing, maintaining and inspecting water systems is a rough job. The people who carry it out must be ready to head out fast at all hours and in all weathers. It is also a vital one, as even a few hours of interruption in the flow or quality of the local water supply can cause havoc for a community.

Officials at Severn Trent Water are keenly aware of the importance of this work and are initiating a new system for managing it. The challenge was in finding a solution that would be as tough and reliable as the people using it.

The choice was a combination of Psion HC100 handheld and Psion MC400 mobile computers running a Mobile Job Management System developed by Procis Software Ltd. Severn Trent Water's existing Distribution Operational Job Management System is linked to the HC & MC systems in the field via the depot based scheduling and allocation module of MJM.

Mains and service engineers use the HC100, while inspectors use the MC400, specially-tailored software runs on both. At the beginning of each day, files containing details of the jobs assigned to each engineer - as well as inspectors - are downloaded onto Solid State Disks (SSDs).

The engineers and inspectors merely insert their respective SSD in the HC100 or the MC400 and instantly has a complete and comprehensive list of their jobs for the day. This means that whilst in the field, the engineers and inspectors are able to view job details and record activities.

And due to the secure and rugged design of the SSDs, the engineers and inspectors can count on their data being reliably maintained.

Once the day's work is over, staff return to their despatch depot and can download the details of completed jobs. This provides management with timely details on response times, resource allocation and helps the early detection of recurring problems within the water system.

### Keeping a watch on water quality

Water quality is a concern that Thames Water - supplier to the UK's entire capital region - takes very seriously. And there are statutory regulations that it must meet in showing its concern for drinking water quality.

To do so, samples of water must be taken from throughout the region at regular, pre-determined times, as well as on a random, non-scheduled basis.

In addition to sampling the quality of water supplied, samples must be taken during various stages of

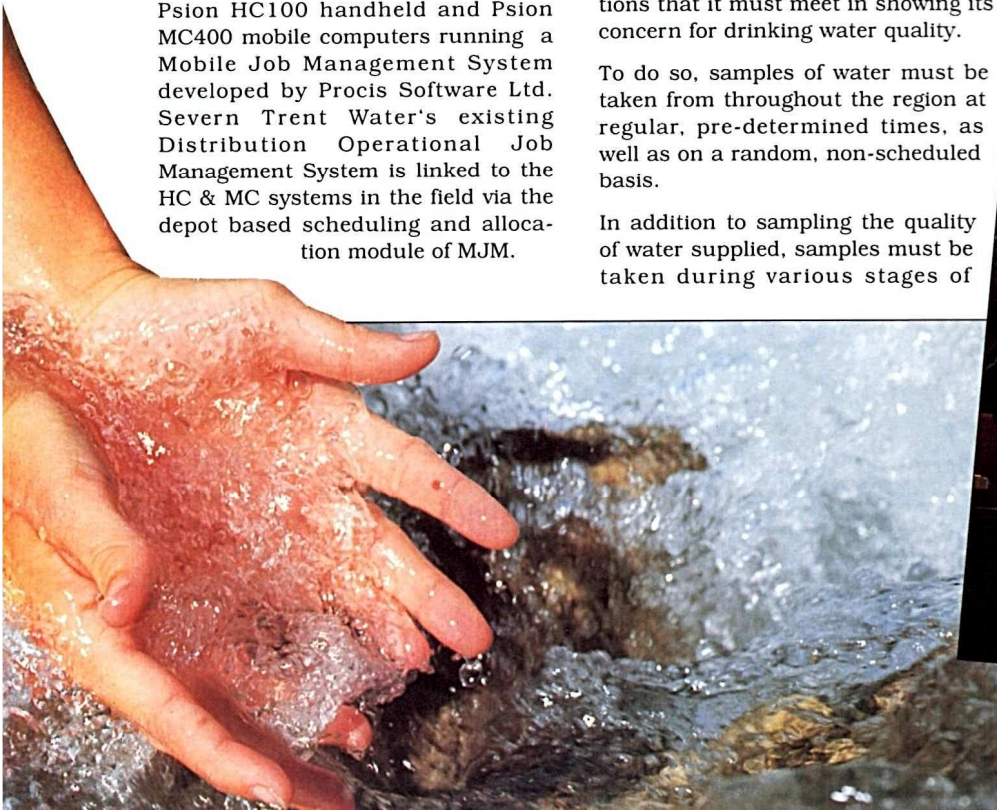
sewage treatment and from the trade effluent of manufacturing companies, and be taken from the soil that lies on the land of those involved in Thames Water's sludge recycling programme.

To assist in the collection and processing of this crucial data, Thames Water will shortly begin using Psion HC handheld computers.

Before samplers set out on their work for the day, they are given HC120's loaded with details of the inspections they are to carry out. This permits maximum flexibility in scheduling new and non-scheduled inspections, and provides samplers with a robust and portable medium for carrying data pertaining to each inspection.

After carrying out each sampling, the results of that inspection are entered into the HC120 for later downloading to and analysis by the company's main water quality sampling system (known as LIFE).

Thames Water is finding that the system improves the productivity and accuracy of data collection. It instructs the sampler where, when and what to sample, automatically inputs data into the company's main LIFE computer system and yields more timely and comprehensive management information.





## Broadcasting a solution

**Keeping in touch with a mobile workforce is an increasingly important task facing a growing number of firms - both large and small.**

Yet the technology offered to mobile workers to help solve their communications problems has been less than ideal. Cellphones do not always offer the clear and crisp voice communication they should, while radio paging and voice mobile radio systems will soon be adversely affected in the UK by the reduction in the number of radio frequencies authorised for private voice transmission.

A pioneering new technology can now solve this difficulty - mobile data radio. This allows clear, concise, error-corrected data to be transmitted from a central computer hooked up to a radio modem to portable data modems hooked up to mobile handheld computers used by mobile workers out on their jobs.

### The perfect marriage

Psion is supporting two radio-based data communications systems - those compatible with Motorola's new RPM4051 integrated radio packet modem and those that operate with the UK's competitive RAM system.

The multitasking environment of Psion's HC range is particularly well-suited to radio-based applications, far more so than DOS-based handheld computers. One reason for this is the HC's ability to continually monitor the communications channel - while still being used for other functions (such as entering data or printing a quote for a client).

### Motorola links with Psion

Psion has entered into an agreement with global radio data communications market leader Motorola to offer that company's new RPM4051 integrated radio packet modem with the Psion HC handheld computer.

This handheld computer/radio modem combination will allow real-

time, two-way, wireless communication between people on the move, their home base and central computer databases. The key benefit of outfitting a mobile work force in this way is increased productivity. Informational databases such as customer files, service records, accounting records and professional listings will be available at the touch of a key.

The Psion/Motorola system is also Pan-European and will operate with public radio data networks in the UK,



**MOTOROLA**

Mobile Data Division

Germany, Canada and the United States. The radio packet modem has been designed to slot directly into the Psion HC and is optimised for mobile data systems. It is the smallest and lightest radio designed for data transmission in the world today.

### Keeping in touch with the HC and RAM

Staying in constant touch with service personnel who are out on the road is a tough job. Given the amount of money many equipment users stand to lose if essential equipment is out of order - many now specify in their contracts with suppliers that defective machines must be repaired within 90 minutes.

This puts tremendous pressure on service engineers - who must be able to quickly get to defective machines. The problem has been how to get messages quickly and reliably to the engineers - particularly when they are moving around from job to job. Mobile data radio on the RAM system - combined with Psion's HC - is one intriguing solution.

Psion has recently been involved with pilot schemes that have seen service instructions issued to engineers equipped with HC's over the RAM system. As soon as they read the job details,

engineers must either accept it and commit to getting to the destination within a minimum time - or pass it on to another engineer. The job details will include the likely fault, the parts which might be needed, the location, nature of the service contract with the client and the amount of time it is likely to take.

Psion has specially-written a purpose-built interface to the RAM system for these trials, so future users wanting to interface the HC to the RAM system will be able to do so smoothly and effectively.



Beam it back with Psion



## Use the HC anywhere - it's official!

Psion has always said the HC was a "go-anywhere, do anything" machine. The International Electromechanical Commission has now endorsed the company's view of its flagship corporate handheld system. It was recently awarded international protection (IP) rating of IP64 by the commission.

This rating is in two parts. The six in the IP64 rating means that the HC has a rating of the maximum available six points and is dust-tight. To achieve this rating, the HC was placed in a dust chamber and immersed in a talcum powder suspension.

The four in the IP64 rating relates to the HC's ability to be splashed with water. This means that it can be rained on and liberally splashed with water without harm - although it cannot be taken through a car wash or fully immersed underwater.



# When HC equals hair control



**Dutch-based hair cosmetics firm Schwarzkopf is world-renowned for its hair care products - and must go to considerable lengths to ensure that its customers are stocked with all the hair care products they need. The customers include both professional hair-dressing salons (serviced by Schwarzkopf's "coiffeur" division) and those sold**

**over the counter to the general public (a job handled by the retail division).**

To keep up with demand from professional hair-dressing establishments in The Netherlands, Schwarzkopf recently started using a mobile order-entry and marketing information system developed by Psion Nederland BV. This uses the Psion HC handheld computer, plus data cradle, quad-standard modem, a barcode scanner and printer.

all of this can be done easily on-site by the salesperson using the HC, barcode scanner and modem.

Salespeople also have all the information they should need on the Psion HC, to demonstrate a clear understanding of each customer. The system holds "customer data and customer memos" which tells the salesperson what time the shop opens and closes, what type and amount of stock the customer usually orders and when the customer might be on holiday.

Schwarzkopf will shortly begin the second part of its phased-in implementation of HC systems into the company's sales force. This will offer salespeople more of a chance to input new information into the system about each customer, enter information about competing products, market data and take inventory of the stock that each salesperson has in their vehicle. And using the modem, all this information can be exchanged quickly with head office.



With this system, which is neatly tucked into a specially designed briefcase, Schwarzkopf's sales staff can much more easily take stock of what products are selling and which need to be updated.

If a customer requires more shampoo or an old stock of shampoo needs to be returned and replaced with a new line, for example,

## "Logging" with a difference

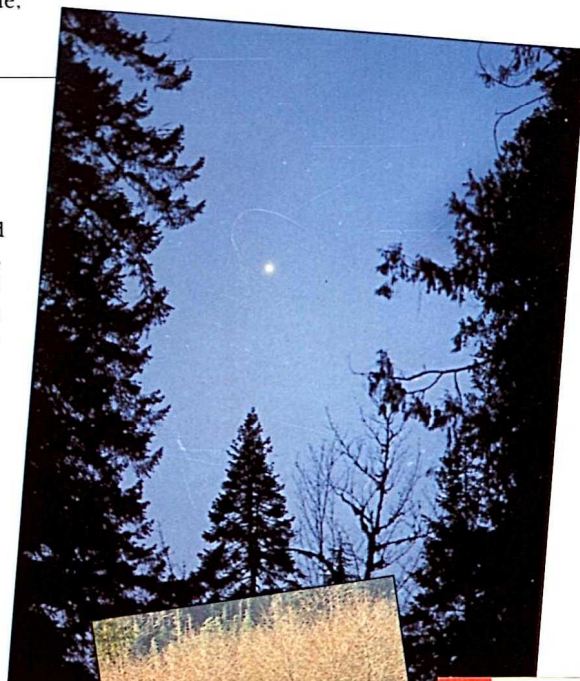
If the world's forests don't survive, mankind will likely follow their extinction in fairly short order. At least that appears to be the consensus of many of the world's environmental experts - who are working hard to encourage reforestation.

One project underway in Canada's most easterly province, Newfoundland is using Psion Organiser II LZ64s to measure the growth of new seedling trees. Information about the growth of the seedlings is vital in helping officials of Forestry Canada in trying to determine the optimum conditions for encouraging new forest growth.

Forestry Canada is using field researchers to collect data about the growth of some 2400 trees each day - and making that data available immediately via modem to the researchers running the project. With a field research team of only eight people, this is a massive undertaking.

Yet by using the LZ64 to record information about the height, number of branches, trunk width and frost damage evidenced in each tree, each researcher is able to survey 300 trees per day.

The real advantage offered by using the Organiser-based system, however, is the speed with which survey results can be published and acted upon. The team's 1990 survey, for example, was carried out using an ordinary paper-based system, and the results for that survey will not come out until later this year - after the 1991 survey! Last year, when Forestry Canada first moved to using Organiser II LZ64 systems, the survey work was completed on November 29 and results were published on December 13.



*Natural beauty  
worth preserving*



# Clean up operations

**The demand for improvements to the treatment and disposal of sewage is on the rise worldwide. In the densely-populated Flanders region of Belgium, with some 5.7 million residents, the challenges are significant. To start with, fewer than 50 per cent of properties in the area are connected to a sewer system - and a mere 30 per cent of sewage is treated.**

To comply with new EC directives on sewage disposal, the government of Flanders is installing a comprehensive new network of trunk sewers and completely overhauling its sewage treatment facilities.

The government has formed a subsidiary called Aquafin - in which the UK's Severn Trent Water company holds a 20 per cent stake. Among the tasks charged to Aquafin are the collection of field data about existing sewer systems, and analysis of the performance of the sewer network under a wide variety of loads.



*Organising man-hole mania*

Aquafin has selected a system called Hydronaut which is based around the Psion Organiser II, written by software house Subtronic. The work starts with data collection about the state of existing manholes and sewers. This information is collected in accordance with European Community regulations on sewers and water mains and then downloaded to a desktop system for further analysis.

The Hydronaut suite then develops 'what-if' studies on sewage flow and volumes. The data needed to carry out these studies includes information about the areas which contribute to the system, which are impervious and where new sewer links have been built. The data generated by this process is then used to create flood plans, sections, manhole and pipe schedules, surcharging and hydrographs.

Finally, the sewerage needs of the region are analysed and the design of new trunk sewers checked. The information it provides is then used to design sewers, storage tanks and overflows.

## Well of information



Canada is a vast nation. With the break-up of the old Soviet Union, Canada now occupies the largest land mass of any country in the world - yet is inhabited by less than 30 million people.

Getting fresh water to a population spread out over such a huge area has meant offering a great deal more local autonomy in the supply of water to residential customers. In many cases, water comes from a local well or reservoir.

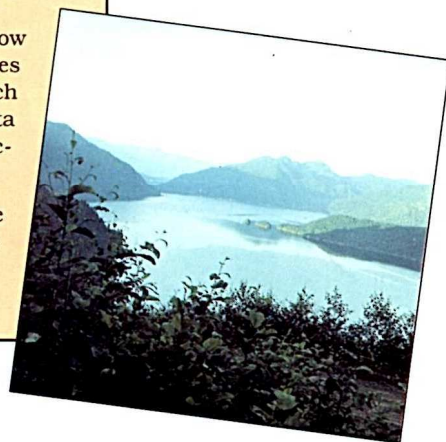
One problem this system has created, however, is that Canadian authorities find it logistically difficult to regularly test all these wells for water levels and quality. In growing urban areas, where wells may have been unwittingly drilled near domestic and industrial land fill sites, this lack of testing poses a serious health risk, particularly if pollutants from the land fills find their way into the local water tables.

To prevent this from happening, Environment Canada is working to prepare a comprehensive geological survey of Canada showing the levels and quality of ground water throughout the country. Due to the sheer size of the country, the Provincial government has in the past relied on drillers of oil, gas and water wells to supply this information to them.

The problem is that the information is supplied on paper - and for it to be any use in helping to build up a clear picture of national ground water levels and quality, it must first be entered into the provincial government's database system.

There is a huge backlog on entering data, and in the case of one province the most recent entry is 10 years old - making it virtually useless in providing a timely geological map for both government and drillers.

Enter the Organiser II LZ64 equipped with software developed by Canadian distributor and VAR SDS. The company has designed a system that can be used by drillers to enter details about the depths at which water samples are taken - as well as full stratigraphic information about rock and soil types and textures. At the end of each day of drilling, the data is transferred by modem to the government's computers, thereby ensuring that it is entered immediately into the system, rather than 10 years later.



*"Well" organised water*



## Organiser II - Guardian Angel of the New York subway

**Keeping New York City's subway system free from crime is the job from which legends are made. If the transit system's Hollywood billing is to be believed, anyone riding the subway for long enough is almost inevitably going to get mugged, pick-pocketed or worse.**

The reality is quite different. Although New York City's Transit Police Department does catch serious offenders, much of the day-to-day crime includes fare evaders, people who ignore no smoking laws, littering or failing to obey a police officer.

While such infractions are considered 'misdemeanour crimes' by US lawmakers, they are still crimes, and those committing them need to be brought to book. Indeed, it is quite often the case that many of those arrested have offended before. And their previous record may help police in determining whether to arrest or ticket someone, or let them off with a warning as a first offender.

To help make this determination, the transit police department is using Organiser II systems.

When an offender is apprehended, his or her last name is entered into the Organiser II. If that person has a record of prior offences or unpaid fines, the Organiser II instantly alerts the officer, and the offender is arrested.

The new method greatly simplifies the previous, paper based system. Prior to handheld computers, record books accompanied transit officers.

The specially-designed software used in the Organiser II for this job was written by the transit police Personal Computer Support staff and was thus easily integrated into the department's central information system.

The transit police records of multiple offenders, and the Transit Adjudication Bureau's records of unpaid fines are all held in the Organiser II.

Each month the updated records of both departments - currently totalling over 1,200 - are merged into a single file on a mainframe computer and then downloaded in minutes onto Datapaks. The updated Datapaks are then distributed to officers before they set out on their tours of duty.



This saves the time and cost of printing new records manually and means that, in the future, records can easily be updated more frequently as and when the department decides to do so.

### HC and Unix join forces

Inventory applications are a popular target of development for users of the Psion HC range.

While information is often downloaded to a desktop PC, mini-computer or mainframe at a later date, it is unusual for anyone to need to "talk" directly to a mainframe from the HC while it is actually running the inventory application.

Ohio-based software developer Advanced Systems Consultants (ASC) recently met this challenge when a long-established and well-respected maker of funeral caskets approached ASC about developing a hand-held computer-based inventory tracking system that would talk to the company's existing NCR mainframe computer system.

The Aurora Casket Company of Aurora, Indiana - the second largest casket maker in the United States - needed a system which would help it track the movement of completed caskets from its 50 service centers around the country to customers.

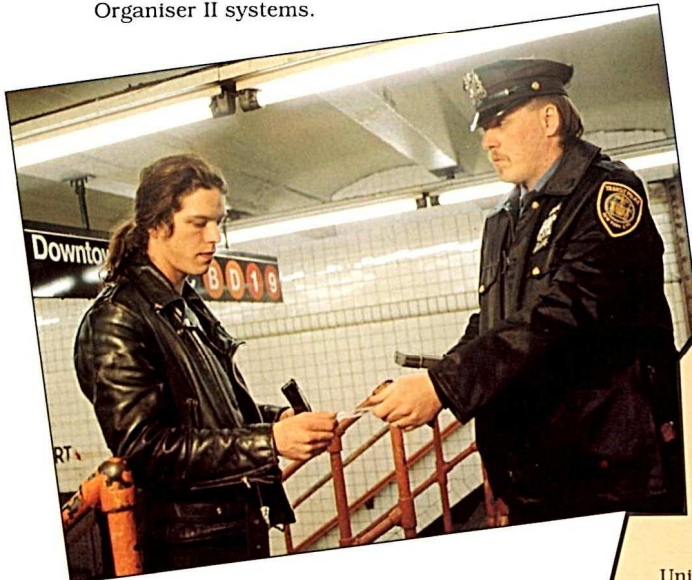
The system required that data be uploaded interactively to the Unix system every time a truck was loaded with caskets - while also being able to carry out unattended uploads and downloads overnight to ensure that data on all handheld systems and the mainframe system was up-to-date.

The challenge was in finding a system that would be robust enough to handle all these jobs - yet flexible enough to be tailored.

ASC was able to design a communications system for the HC so that each HC which dialled into the system (a 486-based PC running Unix and acting as a communications server to the mainframe) would start by acting as a

Unix "dumb terminal" and sending files using the popular XMODEM file transfer protocol.

The result has been a system which allows the movement of all caskets to be tracked by simple bar-code reading and both unattended and interactive communications between HCs, Unix system and mainframe - ensuring that caskets do not go astray and the right casket reaches the right destination at the right time.

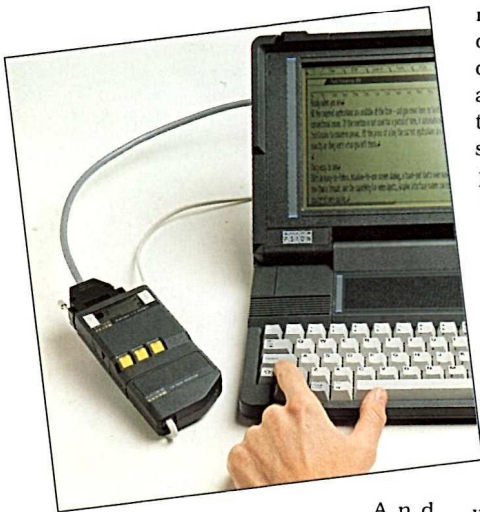


Guardian Angels



# Dacom's handy modem

**Personal computers have dramatically decreased in size over the past five years. Yet the data communications devices most commonly used with them - modems - have often failed to achieve the same kinds of miniaturisation.**



And when manufacturers have tried to make their modems smaller - or even built-in to laptop computers - compromises have been made in both the functionality and ease of use of the product.

As a long-time leading supplier of modems to both consumers and the computer industry, Psion Dacom has been aware of this challenge and over the years has produced a number of products to meet it. Most notably the company's battery-

operated Datamate and the internal modems for Psion's MC & HC range of portable computers.

This wealth of experience has all gone into the design of a ground-breaking new series of modems - the Psion Dacom PDM Portable range.

These modems are designed to offer maximum battery life (up to 10 hours of life on two AA batteries), a liquid crystal display (LCD) which clearly and precisely illustrates the status of the modem at all times, a command set that allows for keyboard control of power-saving modes, and an innovative set of removable adaptors that easily allows the modem to cater for the wide variety of international and specialised telephone connectors found in the world's major countries.

The PDM provides all the functionality you would expect, including V22bis, error correction and data compression, and fax capabilities. In the Autumn this will be added to with two new products that are amongst the first V32 and V32 bis pocket sized modems.

Just as today's notebook-style portable computers are often as powerful as

their desktop counterparts, so the PDM Portable is actually more powerful than many of its desk-bound competitors. It is sleekly-styled, fast and far easier to use than most anonymous-looking desktop modems. It is a product that is designed to be seen, not hidden at the back of a desk.

The PDM portable is also easy to upgrade. As communications standards evolve, your PDM will evolve with them. The PDM's use of "flash" memory means that updates to the modem's on-board system software are easy to accomplish and can just be loaded into the modem's memory from your computer.

Overall, the new Psion Dacom PDM Portable has the style, power and flexibility to make PC-based communications far more interesting than they have any right to be.







# EXPO '92

SEVILLA

exhibition mascot) and maps.

Each shop uses an Organiser and modem to send sales information daily to the head office - so an accurate record of takings can be made and that stock of popular items can be replenished quickly.



For centuries, great writers have taken their inspiration from sailing voyages.

British author Miles Clark is following in their footsteps

This is the first time such a journey has been taken since before the October Revolution of 1917 and Clark is writing about it for National Geographic magazine and will provide a complete account in a book. It is not his first book - Clark's previous tale of high-seas adventure "High Endeavors" was written in stolen moments on scraps of water-soaked paper during another epic sailing voyage.

Clark is not taking any chances this time as he is writing them on the Psion Series 3.



It's hard not to be impressed by the vast knowledge displayed by sports journalists when they attend huge sporting events. It often appears that, at the drop of a hat, they are able to tell readers, listeners or viewers little snippets of information.

You don't need to feel too awestruck, however, as most journalists are "spoon-fed" such information by event organisers. The problem lies in supplying this kind of information in a form that is easy to use. Formula One race sponsors Camel recently came up with a novel solution.

For its Formula One races this year, the company decided to distribute race information on the Psion Series 3. A Series 3 containing a huge database of statistics and Formula One results was

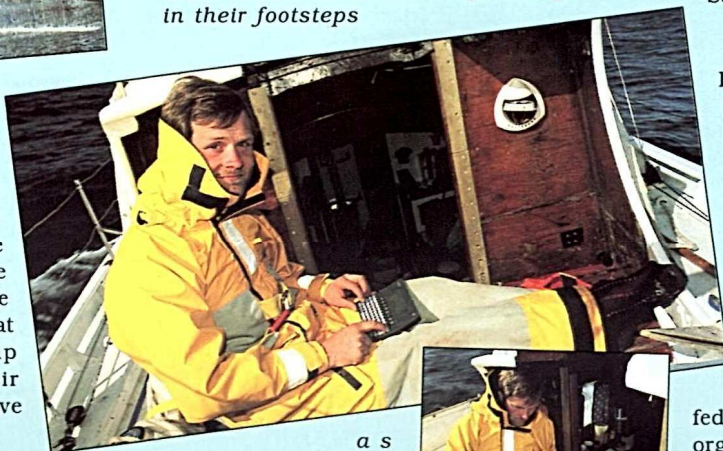
More than a quarter of a million visitors a day are expected to visit Expo '92 in the Spanish town of Seville this summer. And given the warm and welcoming climate of the region, it is likely that many of them will end up quite thirsty during their travels around the massive exposition site.

It will be Psion's job to help quench the thirst of these visitors. A major soft drinks company is using Organiser II systems to keep the site filled with cold drinks at all times.

The drinks dispensers are checked regularly by staff equipped with Organiser IIs and radio transmitters. The numbers of each type of drink required to refill the machine to capacity are recorded on the Organiser II and the attached radio transmitter is then used to relay this information to the company's central depot at Seville. The information is then collected together and used to supply enough drinks to refill the machines much more quickly.

Meanwhile, the 100 souvenir shops specially established in Seville for selling Expo '92 memorabilia have also opted to use Organiser II systems to keep their shelves stocked with goods.

The shops, which are jointly operated by ONCE (Spain's national organisation for the blind) and the Expo '92 organisation, sell t-shirts, lights, stuffed 'Curro' dolls (Curro being the



as he undertakes a sailing journey through Russia - from the White Sea to the Baltic and then up to the upper reaches of the Volga - on his yacht, the Wild Goose. He then sails to the Don and ultimately the Black Sea. At the time of writing, he had already reached the White Sea after dodging three storms by sheltering in Norwegian fjords and being boarded by six armed Russian sailors after being shadowed through the waters outside Murmansk.





given to each of the more than 100 journalists attending the events.

The database was compiled by racing specialists 7E Communications and contains information such as biographies of the drivers, descriptions of various grand prix circuits (including best local restaurants) and race results over the years.



*Italian winter Olympics superstar Alberto Tomba - along with the other members of the Italian winter Olympics ski team - was a keen user of the Psion Organiser during the winter games earlier this year. The ski team used Organisers to record their trial times and other performance statistics - which*



*were analysed by team coaches and then used to brief the athletes on how their performances could be even more greatly improved.*

*The Organiser also provided "advice" on how best to prepare the team's equipment for the slopes. The team linked an Organiser to a digital information system that provided data about wind, snow, temperature and humidity conditions each day and thus helped it to decide how the skis should be waxed, what protective clothing should be used etc.*



Psion handheld computers have long been the darlings of the British film and television community - and 1992 has proved to be no exception in this regard.

Probably the most high-profile of these ventures is Heirs and Graces - a new feature film written by and starring **Monty Python** alumnus Eric Idle. The movie is directed by BAFTA award winner Robert Young and features Canadian comedian Rick Moranis (star of Hollywood hits such as **Ghostbusters**, and this summer's **Honey, I blew up the kids!**), Barbara Hershey (well-known for her role in Woody Allen's **Hannah and her Sisters**) and Catherine Zita Jones (from television's **The Darling Buds of May**).

of an Italian cook - finds himself being brought up as heir to the Bournemouth family fortune and title.

Their paths inevitably cross when Idle clinches a high-flying job at a major City finance house owned by the Bournemouth family and gradually realises his true identity. And, like many major City institutions, the latest in high-tech financial gadgetry is required for Idle to work with - and that's where the Psion Series 3 makes a cameo appearance or two.



A Series 3 also recently showed up on the set of the Channel 4 comedy **Desmonds** - where one of the main character's sons works in a bank where he uses it. Over on the BBC, Psion handhelds have made their way into a new prime time series called "Rides". It is about an all-female taxi firm that has built itself up from near bankruptcy to thriving success.

Finally, long-running Scottish police drama **Taggart** is using a Psion Organiser II as one of the props for a lawyer in the series.

It is an old-fashioned "baby swap" story that sees Eric Idle's character - who is by birth the son of the Earl of Bournemouth - growing up with a poor family in Southall. Meanwhile, Rick Moranis' character - actually the son





## Third Party

### Computing Resource

Computing Resource of the United Kingdom joins the growing number of software houses to offer new applications for the Psion Series 3 handheld computer. It recently released Money Manager, a personal banking and budgeting application. Money Manager is able to keep track of all personal bank, building society, credit card and expense accounts - and allows you to produce up-to-date and accurate balances at the touch of a button.

For further details contact Computing Resource in the UK at (0635) 45804.



If you are fed up with running one personal information manager system on your Series 3 and another on your desktop PC under Microsoft Windows, then a new system from German-based Yellow Computing may be of interest. Called Agenda 3; it provides you with all the appointment handling functions of the Series 3 from within a Windows application - allowing you to use agenda data files entered on the Series 3 in Windows and vice versa. In addition, special communications software built into Agenda 3 allows you to link the Series 3 to your desktop PC and access agenda data on the handheld without first having to run the MCLink communications software.

To find out more, call Wolfram Herzog at Yellow Computing on (+49) 07136 4097.



### TRANSFORM LTD



Thinking of doing your accounts on the Series 3? Longtime British handheld software developer Transform wants to help you - it has designed a new package known as Professional Account Manager for just this job. You can use it to manage a variety of accounts, reconcile bank or credit card statements, plot your bank balance, monitor foreign currency exchange rate fluctuations and print statements with it.

Call Transform in the UK at (081) 462 4666.

File	Transaction	Reports	Special
Open	ds		25.50
Revert	er cable		50.00
Save as...	icks		21.45
Save + exit	ront ture		14.95
			80.00
			378.72
	851.77 bal	DEMO	c/f

French software developer KA has decided that Series 3 users need more corporate games to play on their machines. They have designed a version of the classic "Reversi" strategy game. It is known as Theole and allows you to play against the Series 3 on some 28 levels of difficulty, or against another human player. It offers both 2D or 3D views of the game board and features game clocks and animated effects.

If you want some fun on your Series 3, contact KA in France at (33) 1-44431600.



British software house Widget Software has announced a new "finance pack" for the Series 3. It offers you complete control over up to 24 bank or credit card accounts, will display balances, print reports or reconcile statements. It will also allow you to enter standing order and direct debit details that can be processed automatically or on request.

Call Widget Software at (0438) 815444 for full details.

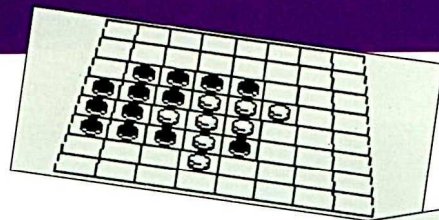
### WIDGET SOFTWARE

A US company has tackled the problem of integrating information from the Series 3 to Microsoft Windows-based personal information managers in a different way. IntelliLink, Inc. of Nashua, New Hampshire says it has designed a product called IntelliLink that lets you move information from the Series 3 to applications such as Borland Sidekick, IBM Current, Polaris PackRat and WordPerfect Office - as well as a range of word processors, databases and spreadsheets.

For the complete scoop call IntelliLink in the US at (603) 888 0666.

Navimat, which some of you may recognise from Organiser II, has recently been adapted to incorporate the Series 3. The software is a powerful mobile flight plan and navigational system, for use throughout Europe. Apart from conventional functions such as calculating the ground speed, cross wind etc, the multi-tasking capabilities of Navimat's intelligent planning program enables pilots to carry out different functions simultaneously.

For further information call Klatt in Germany on (+49) 080 82 57 38.



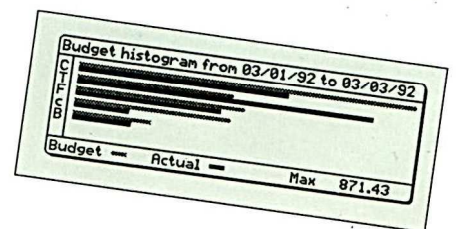
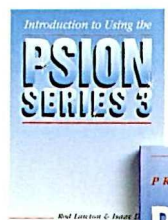
A new user group for Series 3 users has been established in the United Kingdom. David Steel, chairman of the new London-based international user group, says that the group is actively looking for new members.

David says it is dedicated to acting as a vital forum for exchanging ideas and information about the Series 3 - with members receiving a substantial bi-monthly magazine containing news and reviews of Series 3 software and hardware, lots of hints and tips, letters pages to handle problems and queries, detailed technical information and access to a library of "freeware" and low-cost software. Anyone wanting further information should contact the user group directly at: The Series 3 User Group, P.O. Box 2375, London E1 3JL or telephone on (071) 791 2219.

Meanwhile, a new Italian user group for Psion Organiser users has been established in Turin. Known as PSI-Italy (the Italian Psion Organiser Club), it will also feature a monthly newsletter - although this one will be written entirely in Italian. Contact Renato Buzzi at Via Filadelfia 200, 10137 Torino, Italy for more information.

A number of new books have also been published about the Series 3. They are all from Berkshire-based Kuma Computers and include First Steps in Programming the Series 3 by Mike Shaw, Introduction to Using the Psion Series 3 by Rod Lawton and Isaac Davis and Serious Programming on the Series 3 by Bill Aitken.

To find out more about them - call Kuma Computers in the UK at (0734) 844335.





## THIRD PARTY LISTING

### PSION ORGANISER II

NAME AND ADDRESS	PRODUCT NAME	DESCRIPTION
Broad Oak Computing PO Box 366 London WC2E 9SQ Tel: 071-836 7640	MANAGER	Biorhythms - Including Good, Poor and Critical days, and compatability. Portfolio - Manage your cards for "The Times" Portfolio game. Gross Profit and VAT - For business use. Numbers - Numbers to different bases.
	ROULETTE	1 to 4 players, all results tracked, all bets available. Option to display the spinning wheel.
Dolphin Maritime Software Ltd Dolphin House Priors Hill Road Aldeburgh Suffolk IP15 5EP Tel: 0728 454171	GPS SYSTEM	Satellite Navigation receiver and software for worldwide land, sea and air use.
	OILSURVEY	Oil and chemical cargo calculation software for surveyors and ships officers.
	CONVERT	Map and chart coordinate conversion software for use with electronic navigation systems.
Organiser Software 10 Rowley Way Knutsford Cheshire WA16 9AU Tel: 0565 633313	TVLOG	Studio or location TV logging software.
Palmtop Software Ltd PO Box 84 Camberley Surrey GU16 5GF	PALMTOP OFFICE	Enhanced database retrieval. Mailmerging and much more. A package for Business people.
Systemslink Two Ltd Incon House 10 Stilebrook Road Olney Bucks MK46 5LL Tel: 0234 711220	LEATHER CASES	Black leather cases for Series 3, HC, Organiser II, Printer and Datapaks.
WIKSOFT 117 Lion Road Bexleyheath	GOLFSCORER PRO	Full featured golf score calculator and database. Ideal for beginner or pro alike.

### PSION SERIES 3

BroadOak Computing PO Box 366 London WC2E 9SQ Tel: 071 836 7640	R.P.I.	Compare prices and the purchasing power of the Pound for all years between 1947 and 1992.
	Crosswords	Cryptic crossword with full graphics. Secure solutions.
WIKSOFT 117 Lion Road Bexleyheath Kent DA6 8PG Tel: 081 301 4766	Estimator	Customer estimating and invoicing calculator, printer and database. Ideal for small contracting business.
	Accountant	Sales and purchases database. Calculates quarterly returns and prints end of year accounts.
	IconEditor	Create and save your own application icons. Uses 4 x magnified scrolling screen.
	HexEditor	Edit any file at byte level. Search for occurrences of ASCII or hex value.

```

proc biorhythm:
LOCAL curd%,min%,max%,dtf%,dob%,ds1970%,day%
LOCAL phys%,emot%,inte%,yr%,mo%,dy%,hr%,mn%,sc%,yrday%
LOCAL name$(18)
name$="<Your Name>"
curd%=DAYS(DAY,MONTH,YEAR)
ds1970%=DAYS(1,1,1970)
dtf%=curd%
dob%=DAYS(9,2,1967)
min%=0
max%=DAYS(31,12,2049)
dINIT "Biorhythm Calculator"
dEDIT name$,"Name:",18
dDATE dob$,"Date of birth:",18
dDATE dtf$,"Calculate for:",min%,max%
IF DIALOG
day%=dtf%
day%=(day%-ds1970%)*24*3600
SECSTOD(dte day$,yr%,mo%,dy%,hr%,mn%,sc%,yrday%)
nod=FLT(dtf%-dob%)
phys%=calc%:(nod/23)
emot%=calc%:(nod/28)
inte%=calc%:(nod/33)
graph:(phys%,emot%,inte%,name$,yr%,mo%,dy%)
ENDIF
endp

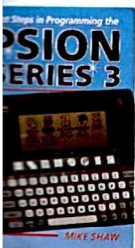
proc calc%:(modd3)
RETURN INT(((SIN(((modd3)-INT(modd3))*2*PI)+1)*7)+1)
endp

proc graph:(phys%,emot%,inte%,name$,yr%,mo%,dy%)
DO
gGMODE 0
gSTYLE 0
gAT 0,0
gBORDER $201,240,80
gAT 10,25
gPRINT chr$(254)+"Physical"
gAT 120,15
gFILL (phys%*7),10,0
gAT 10,40
gPRINT chr$(254)+"Emotional"
gAT 120,30
gFILL (emot%*7),10,0
gAT 10,55
gPRINT chr$(254)+"Intellectual"
gAT 120,45
gFILL (inte%*7),10,0
gAT 15,65
gSTYLE 4
gPRINT dy%:"/";mo%:"/";yr%
gAT 2,10
gSTYLE 17
gPRINTB "Biorhythm for "+name$,230,3
gLINEBY 0,5
gLINEBY 11,0
gLINEBY -1,-5
gAT 117,70
gPRINT "LOW"
gAT 200,70
gPRINT "HIGH"
BUSY "Press ENTER to Exit"
g%=GET
UNTIL g%=13
BUSY OFF
endp
    
```

## See how you feel

We all have good and bad days, but now with this program for the Series 3 you can find out just what the day has in store for you.

Designed to test your emotional, physical and intellectual strengths, this program will give you a graph of whether or not you should have stayed in bed today!





PSION



BEST HANDHELD COMPUTER  
WHAT MICRO? AWARDS 92



Personal Computer World AWARDS 1991

BRITISH DESIGN AWARD 1992

## A PC for the future

But unlike the desktop PCs of yesteryear, the Series 3 comes with a state-of-the-art, multitasking, windowing operating system and a number of full-function, applications built-in. These applications include a Microsoft Word file-compatible word-processor, database, diary, calculator, world map and the latest graphical implementation of Psion's popular OPL programming language.

Series 3 owners are also being offered an increasing range of add-on software and peripherals for their palm-top systems - including a communications link, a parallel printer link, a new Lotus 1-2-3 file-compatible spreadsheet and pocket chess.

Psion has also dramatically ramped up production of the machines to meet the huge demand for it, installing a state-of-the-art automated surface mount production line at Greenford, Middlesex.

A wide range of storage options - using either Flash or RAM memory Solid State Disks (SSDs) - is also available, ranging from 128K to 2 Mb each. The Series 3 provides room for up to two SSDs to be loaded at any one time.

## More software on the horizon

Psion is also putting considerable effort into helping third parties develop software for the Series 3. The company recently announced a Software Development Kit (SDK) for those writing applications for the Series 3.

The very design of the Series 3 makes it attractive for software developers. Aside from the familiar desktop computer processor and MS-DOS file structure offered by

the Series 3, there is also a graphical version of Psion's popular OPL programming language built into the Series 3.

## It's a small world, after all

The Series 3 is designed to serve a global market. For a start, it includes a world map - with details on worldwide time zones, telephone dialling codes and distances from one major city to another.

Perhaps more importantly, Psion has already made the product available in a number of languages - including English, French, Italian, German, Spanish and Dutch. The Series 3 was designed from the start to operate in multiple languages.

All these features - combined with an impressively keen price - have combined to make the Series 3 popular with both users and technology award judging panels.

The machine has won accolades on both sides of the Atlantic. Within weeks of its launch, the Series 3 captured the award for "Best International Product" at the huge COMDEX/Fall exhibition in Las Vegas. Shortly after, the Series 3 won a Product Distinction Award from Byte magazine. In the UK, What Micro Magazine backed this up with the award for "best hand held computer", and as we went to press the Design Council presented Psion with one of their prestigious Design Awards for the Series 3.



# Win a Series 3

This issue we are giving away not one but two Psion Series 3 256K. To win is easy; all you have to do is exercise your wit and imagination and tell us why you'd like a Psion Series 3, in not more than 20 words. The two most imaginative answers will win.

With your name, address and daytime telephone number send your answers on a postcard to:

The Editor,  
Psion UK PLC,  
Freeport,  
London  
NW8 6YP.

Overseas entries should be sent to the address below. Judges decision is final and all entries must be received by **Friday 20th November**. Good Luck.

Speaking of winners, we would like to congratulate Mr Tony Tucker of Grangemouth who wins himself the Psion MC400 and word processor. Well done, and thanks for your winning entry!

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# Your old Calculator is worth £30!

## When you upgrade to the amazing new Psion Series 3!

The world's most powerful pocket sized computer can be yours for just **£169.95(Inc VAT)** - if you have an old Calculator or Organiser to exchange! That's a saving of **£30** on the recommended price of **£199.95 (128K model)**.

**Packed with features!** You don't have to be a computer buff to use the incredibly powerful Psion Series 3 - its graphic user system guides you through everything!



### Super Spreadsheet Offer!

Save £30 on the 256K Series 3 and Spreadsheet when purchased together. Now only £289.95 (Inc VAT).

- ✓ Fully featured Word-Processor and Outliner.
- ✓ Fast easy search Database with multiple files.
- ✓ Diary keeps track of appointments & jobs to-do.
- ✓ Multitasking, easy to use windows.
- ✓ Automatic Telephone Dialling.
- ✓ Multifunction computer Calculator.
- ✓ Communications facilities for 'talking' to other computers, printers & modems.
- ✓ World information - time & dialling codes.
- ✓ Optional Solid State Disks for even greater memory.

**PSION** SERIES **3**

Available from independent dealers and retailers including: Alders Duty Free and Department stores, Berrys of Holborn, Boots, Dixons, Harrods, Jessops Photo Centres, John Lewis Partnership, Ryman Ltd, Selfridges, WH Smith, Wilding, Wallace Heaton.  
For further information phone Psion on 071 258 7368.



**NEW**  
Spreadsheet



# SOFTWARE & ACCESSORIES

FOR THE WORLD'S  
MOST POWERFUL  
POCKET-SIZED  
COMPUTER





# Spreadsheet



**Spreadsheets are probably the most widely used, most flexible business tools of modern times.**

Now, with the Psion Series 3, you can have a pocket spreadsheet that is compatible with desktop versions, so desk bound data can be worked on anywhere.

## **The Psion Series 3 Spreadsheet offers:-**

- Compatibility with desktops through Lotus 1-2-3 WKS and WK1 files and DIF format.
- Comprehensive functionality, including the full set of Lotus 1-2-3 functions, tables, databases and data graphing (macros retained but not supported)
- Multiple worksheets, with copy and paste between them and the Series 3 Word Processor.
- Multi-tasking means you can continue working while Series 3 calculates or prints: calculations are made only on affected data, for even faster response
- On-line help for functions and syntax.

**For the display,** bold and underlined fonts can be used for emphasis, and a small font to show more cells.

Four selectable font sizes and types are available for print-outs. Worksheets can have up to 256 rows by 8192 columns, and a maximum file size of 45K.

**For graphs,** the Series 3 goes beyond the standard by providing both 2D and 3D Bars, Stack Bars and Pie Charts, as well as Line and Scatter graphs. Graph images can be saved as Lotus '.PIC' files.

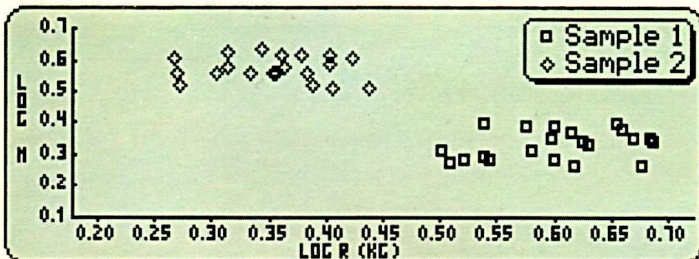
**Series 3 worksheets** can be exchanged with PCs and Apple Macs using our 3-Link interface, - making the Spreadsheet perfect for everyone, whether Series 3 is the only computer used or a vital adjunct to a desk-top.

**The Series 3 Spreadsheet. Unquestionably, the world's most powerful for pocket-sized computers.**

Does not run on 128K Series 3.

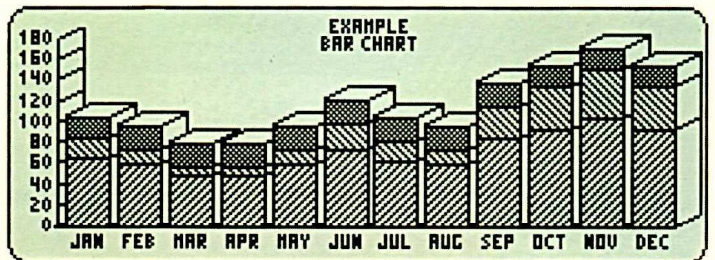
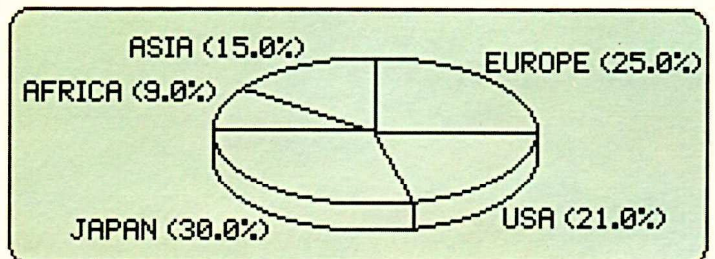


E5	124					
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
1		<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>
2	<b>Series 3</b>	1,000	1,210	1,464	1,772	2,144
3	<b>3 Link</b>	300	363	439	531	643
4	<b>SSD 2MB</b>	50	61	73	89	107
5	<b>SSD 1MB</b>	70	85	102	124	150
6	<b>SSD 512k</b>	110	133	161	195	236



File Edit View Search Range Special						
	JAN	FEB	MAR	APR	MAY	JUN
SERIES 3	1,000	1,210	1,464	1,772	2,144	2,596
3 LINK	300	363	439	531	643	785
SSD 2MB	50	61	73	89	107	130
SSD 1MB	70	85	102	124	150	182
SSD 512K	110	133	161	195	236	288
SSD 256K	370	448	542	655	793	966
SSD 128K	430	520	630	762	922	1,112
SSD 64K	280	338	410	495	596	724

Recalc	⇧
Data	⇧D
Options	⇧P
Graph	⇧G
Print	⇧Y
Exit	⇧X



- Bold and underline fonts for emphasis
- Small font to show more cells
- Pull down menus to access commands and options
- Wide variety of graphing options.



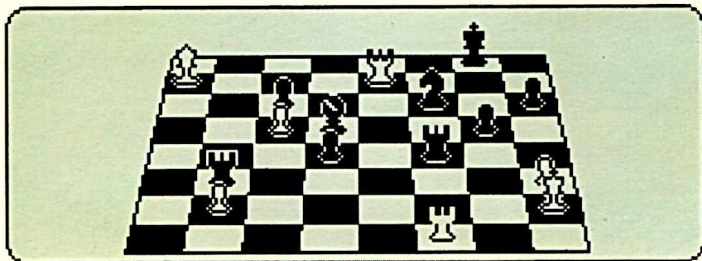
# Chess

Available May 1992

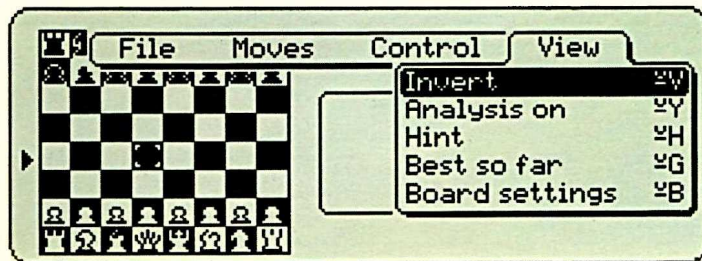


**More powerful than many dedicated chess-playing computers.**

It has playing levels from beginner to championship - and includes 50 classic games drawn from 150 years of International Chess, with commentary by International Master, William Hartston.

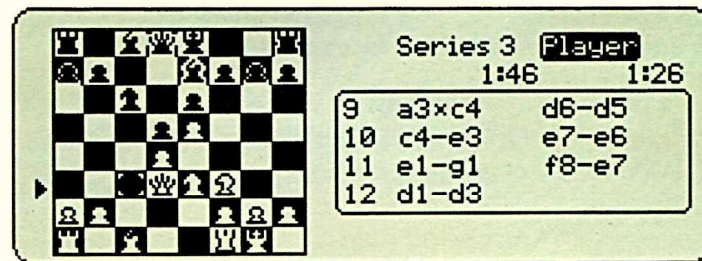


It will even solve those 'mate in so-many moves' type of problem for you! You get a choice of 2D or 3D views with amazing graphics. And, with the Series 3's powerful multi-tasking capabilities, you can switch to and from the game whenever you wish.



**Features include:** take-back, replay and forced moves; hints and multiple levels of play; game saving and loading. You can play against the computer, another player, or watch while Series 3 plays against itself. And all legal castling moves and enpassant captures are recognised.

**Psion Chess. Take the challenge.**





# Professional Finance

Available May 1992



**Psion Professional Finance is the perfect problem solver and analyser for all who are involved in the world of finance.** It evaluates a variety of financial statistics, including the impact of cashflows, depreciation, rates of return, offers Reverse Polish Notation, and has a comprehensive - and extendable - set of conversion tables.

Cashflow Analysis		 Fg  Fri 20
8	% Cut-off (IRR)	
5	Periods	
1,082.51	Net Present Value	
1,472.74	Net Future Value	
3	Payback Period	
4	Net Payback	
10.8111	% Modified IRR	

**Formulae Include - Cashflow** solutions for net present value, net future value, payback period, internal rate of return and modified internal rate of return, from up to 120 cashflows. **Amortisation** solutions for present value, future value, interest rate, periods, payment and total interest. **Linear Pay Off** calculation of period payments to reduce total debt linearly.

**Break-even point** solutions for start-up cost, unit cost, unit value, unit sales and profit. **Capital growth** solutions for present value, interest rate, number of periods and future value. **Depreciation**, linear, sum-of-years digits, percentage and compound depreciations. **Actuarial Functions** calculates single payment present/future value, uniform series present/future values from a given interest rate and number of periods. **Also -** Annual Percentage Rate (APR); Mark-up/Mark-down calculations, date differences and time conversions.

**The conversion tables cover -** time, temperature, speed, pressure, force, energy, power, length, surface areas. **Extendable -** for example, to cover currency conversions - by simply entering the related items in an 'instruction' mode. **Psion Professional Finance. Worth a mint.**

TVM	Business	Deprec	Convert	Special
Business Percentages	%B			
Interest Rates	%I			Fg
Break-even point	%E			
Linear Debt Pay-off	%W			
Fixed car costs	%H			
Total car costs	%Q	ce		
				Fri 20



# Communications & Printing

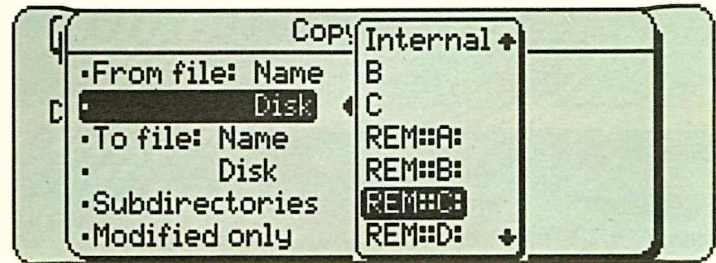


**Connecting to a PC or Apple Macintosh.**  
Using the Psion 3-Link, your Series 3 can be connected to IBM compatible PCs or Apple Macs for the exchange of documents, worksheets and other files, and for file back-ups. The 3-Link

interface connects between the Series 3 Comms Port and the PCs RS232 Serial Port.

Using software supplied with 3-Link, the Series 3 is effectively networked to the desktop, giving direct access to its disk drives. Both X and Y modem file transfer protocols are also supported. The software disk also contains additional printer drivers, and a PC based translator for the OPL language.

The IBM compatible version includes both 3.5 and 5.25 inch disks, and a dual 25/9 pin cable connector. The Apple Mac version has a 3.5 inch disk and 9-pin cable connector.



## Modem Connections

The 3-Link Serial interface will also allow the Series 3 to be connected to a modem for communication with other computers via the telephone system (a separate modem connector cable will be required).

The modem connection enables electronic mail and bulletin board systems such as MCI Mail and CIX to be





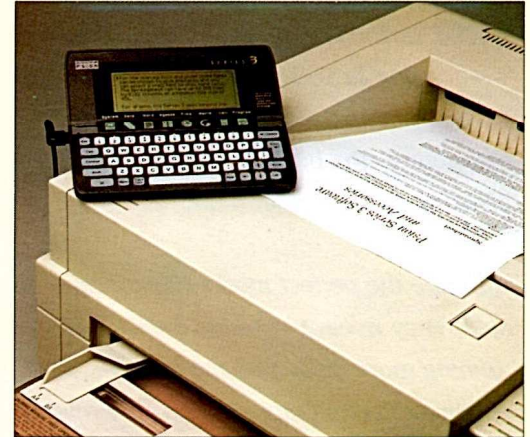
*accessed, and 3-Link includes sample scripts to help automate logging on to such services.*

*A comprehensive script language is also provided, for experienced users to prepare their own sets of automated comms instructions.*

### **Printer Connections**

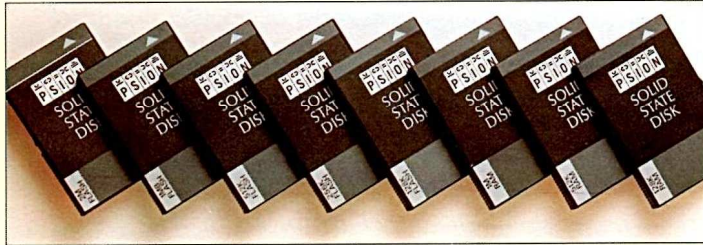
*Most printers have a 'Parallel' connector, to which the Series 3 can be directly connected via a Parallel Printer Link. For 'Serial' connector printers (which includes some laser printers), the 3-Link Serial RS232 interface is required, together with a 'Serial Printer Cable'.*

*Series 3 directly supports a number of popular printers - Epson RX/LQ, Canon BJ-10e/30, IBM Proprinter X24E - and has a general driver that will print basic text on virtually any printer. Other printers are supported with 'printer drivers' supplied on the 3-Link disks, and also available direct from Psion. These include drivers for Postscript and HP Laserjet III printers, and can be copied into the Series 3 to enable it to benefit from the printer's range of styles and fonts.*





# Expanding your memory



**Two expansion ports enable the memory of your Series 3 to be expanded by up to 4 Mbytes, using plug-in Solid State Disks.** Solid State Disks (SSDs) have the same function as the floppies in desktop computers - the big difference is, no moving parts are involved so they're far more reliable.

SSDs are the perfect media for storing original and back-up data. They release valuable Series 3 internal memory for running more tasks and applications. And they provide enhanced data integrity: Flash SSD retains its memory even

*if removed from battery supplies or subjected to knocks and jolts.*

**Two types of SSD are available:** Flash, and RAM. A RAM SSD has a small, easily replaced Lithium back-up battery to retain data when the SSD is removed from the Series 3. It allows deleted data to be overwritten with new data, as with floppy disks. Battery life is one year.

A Flash SSD doesn't require a back-up battery, and is perfect for permanent and semi permanent data storage (such as a database, diary and some documents and worksheets). Data can be selectively deleted, but the deleted space is reclaimed only when the SSD is re-formatted - a simple menu-controlled operation on the Series 3.

**Also available...** Leather wallet - to keep your machine in pristine condition; *First Steps in Programming Series 3* - the book that shows beginners how to write useful Series 3 applications.



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