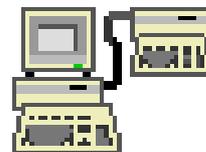
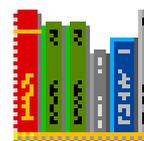
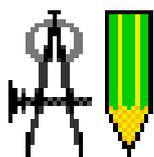


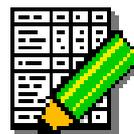
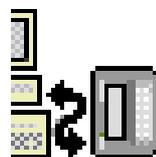
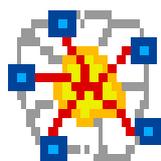
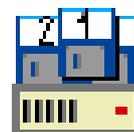
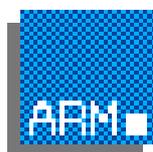
THE
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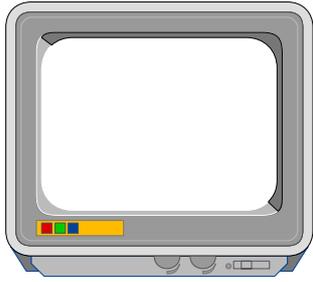
The Magazine for Members of The ARM Club

Issue 15 — May 1995



Harrogate Show Edition

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THE ARM CLUB MAGAZINE

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**Issue 16 of Eureka will hit your
doormat in August with more news
& views from Club members!**

USER GROUPS

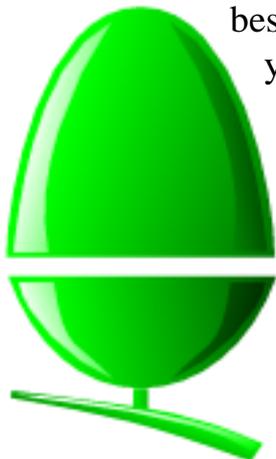
Where do you turn for support when you have a problem with your computer? Your next-door neighbour possibly? If so, you are very lucky...

It may be that you have a local dealer who understands the products which he or she sells and is prepared to help with your problems. Sadly not all dealers have the time, resources or inclination to assist.

You may have the answer sitting on your bookshelf, either in a manual or one of the numerous Acorn magazines published each month. However finding the information you need can be very difficult, particularly if you are unsure as to the cause of your problems.

You may be able to afford a modem and software to connect your Archimedes or Risc PC to a telephone line, enabling you to contact other Acorn users on private bulletin board systems or the Internet. This is a particularly effective solution if you can afford the equipment and know how to use it.

The use of computers should be sociable, sharing your problems and experiences is the best way to get more out of your computer. Do you have a local user group? If not, is there anything you can do to change the situation?



Simon Burrows
Editor, Eureka

Editorial

ACORN USER SHOW

The Acorn User Spring Show is taking place over the weekend of 6–7th May in the pleasant market town of Harrogate in sunny Yorkshire. If you haven't attended the Show in the past you have been missing a special event; the atmosphere and feel of the Harrogate Show is very different from the larger event held at Wembley each October.

The Acorn User Spring Show is organised by a company called Safesell Exhibitions, independent of Acorn which now runs the Wembley shows. The organisers go to great lengths to make it a good day out for the whole family and the Show attracts many visitors who would not consider travelling all the way to London as well as having a more relaxed atmosphere.

In contrast to last year, Acorn is not using the Show to launch any new computers although the PC486 Card which brings proper PC compatibility to the Risc PC will be available along with some other products.

The ARM Club will be present at Harrogate, giving our usual mixture of friendly advice, membership information and PD software. Please come along and say hello if you visit the Show, don't forget to bring along any technical queries which you would like answering by our panel of volunteers!

PC 486

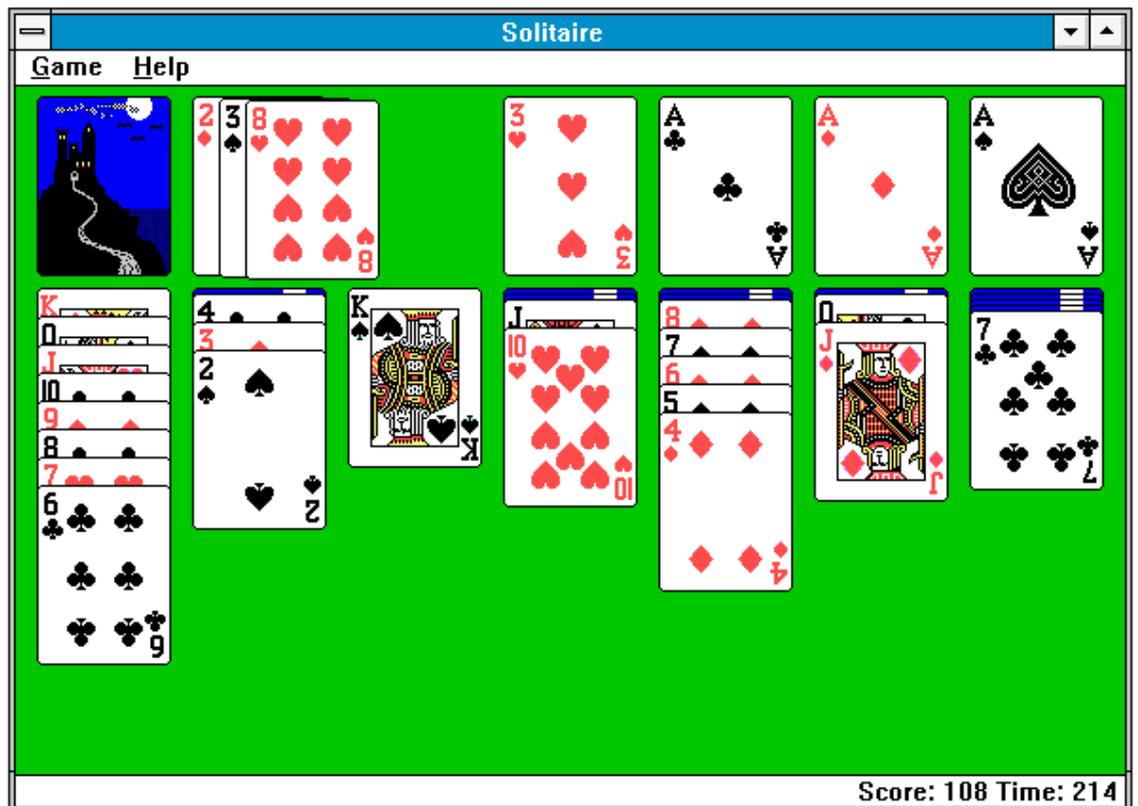
ACORN CARD

After a year of waiting, Risc PC owners can now upgrade their computers with this new card. We asked some people for their opinions on being able to turn their RISC OS machine into a PC simply by plugging in a £99 upgrade card...

For those who read my wife's article in *Eureka 13*, our new bedroom wardrobes duly arrived. More remarkably, they were eventually fitted and paid for, despite the attractions of the Risc PC. Even more impressive is the sight of empty storage space on extra shelving that I have found time to install. Despite having retained an A440/1 to provide company for the Risc PC, with two teenage daughters and a wife who teaches part-time I often have to wait until 11.00pm to use a machine. Why on earth do I want a PC486 Card for a computer that I can only use as a cure for insomnia?

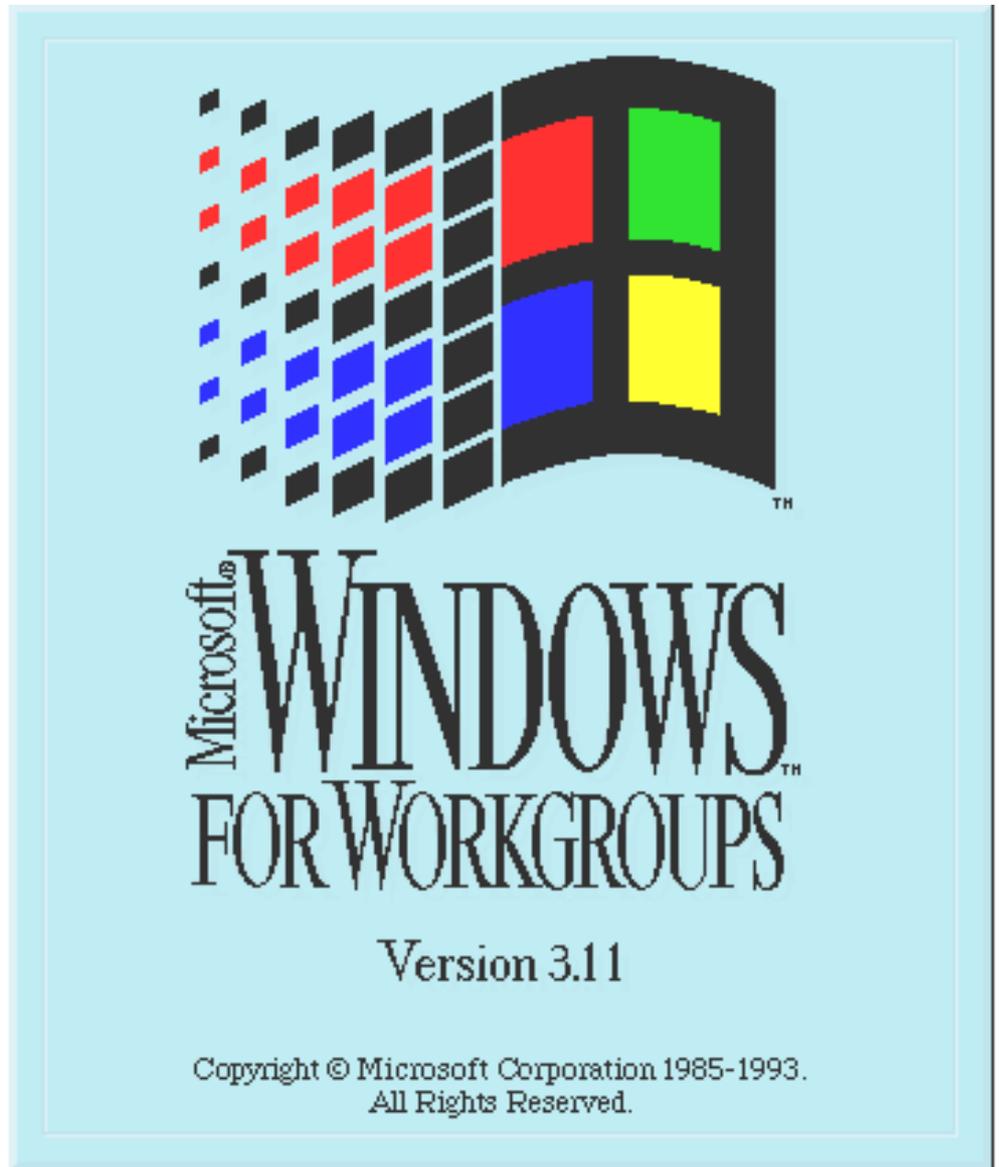
- I've already paid for my card!
- £99 wasn't a great deal to pay

for another computer — although in reality I will probably have to pay another £150 for a second hard disc (who said I'd never fill 40MB once the marvels of ArcFS were revealed, let alone 210MB?), plus possibly £70 for a sound card, not forgetting at least 4MB of extra DRAM. What about clothes, a family holiday, a new TV and everything else that we need?



Why does everyone end up playing Windows Solitaire?

- To show all those doubting Thomas's with IBM clones that I do have a real computer, and in a way that they'll be able to understand. I have been laughed at for long enough (heightened by repeated delays since the official launch of the Risc PC), both as an Education Officer and an enthusiast, for promoting a highly efficient British product of genuine quality — a machine that, given a little patience and application, teaches the user, incrementally and intuitively, how to find ways of processing information and using the computer to overcome everyday problems in innovative and interesting ways.



Am I just an ordinary guy who knows little about computers, has shot his mouth off to the majority (whether simply friends, home-users, school governors, businessmen, teachers, parents and others about Acorn machines) and wants to get even? Yes... but, I also have some specific and practical reasons for wanting a PC486 Card as well:

- It should give full PC compatibility, not just emulation, i.e. should run most up-to-date PC software applications.
- My daughters need to be familiar with the PC software packages available and used in upper Secondary, Further and Higher

Windows 3.1 — the choice of millions of people...

Education, also to prepare for work experience & employment.

- Hilary, my wife, works in a college which only has PC machines and in a geography department which is only just waking up to the potential of computer assisted learning, following her interest in and excitement about *Langdale*, the Nelson CD series etc.
- I use PC packages in my workplace. I work at home 1–2 days a week and being able to have full PC access at home will be helpful and will save time.

- It will provide access to the wide range of CD ROM packages already available, but only in PC format. Some of these are excellent, for example *Encarta*.

- It offers significant access to the information Super Highway, assuming the additional the purchase of fax/modem, communications software etc at a cost of about £200 [*Acorn machines can do this! Ed*]

- It expands the range of programs and facilities available for those with Special Educational Needs. Anything which increases the independence, lifestyle and potential of those with learning difficulties, with physical and sensory impairment etc. is to be applauded.

John Reed

As an Acorn user since BBC B days I have never had to put up with the inadequacies of DOS and Windows so I am looking forward to adding a PC486 Card to my Risc PC with mixed feelings. I certainly want to have the card, mainly to get access to the large range of CD-ROMs available but also because it could well be that less software is going to be produced in RISC OS versions in future.

Already the publishers of the Hutchinson encyclopedia CD-ROM have decided not to update the 1992 Acorn edition and Armor have discontinued work on the RISC OS version of their Protext 6 word processor, although they thought it worth issuing one for the now defunct Amiga.

There is obviously less incentive for software writers to work on programs for the

comparatively small band of Acorn users when Risc PC owners will soon be able to run those produced for the big and highly profitable PC market. The risk that Acorn has taken is that PC programs could eventually become the only software there is for the Risc PC.

Peter Jennings

Being an occasional user of the PC Emulator for the odd application such as *AutoRoute Express* and *Turbo Pascal*, the PC486 Card will be a welcome addition from a speed point-of-view. I am also more likely to need to use more PC applications in future in connection with work, especially Windows and OS/2 based software which cannot be run on the PC Emulator.

It doesn't matter to me that the PC486 Card does not have the performance of the latest top-end PCs — a 486SX33 is fine for the amount that I plan to use it. I look forward to the future software enhancements promised by both Acorn and third parties such as support for true colour PC displays, OS/2 and Linux drivers and also the facilities for easing data transfer between the Acorn and PC environments.

Mark Smith

My justification for the almost heretical idea of putting a PC chip inside my Risc PC is as follows: firstly, as a computer science student, I use PCs (and many other platforms) daily and hence there are certain PC-based packages that I would like to be able to run on my own computer. For example software exists to turn a PC into a

computer running the powerful UNIX operating system which would help development of certain projects (though UNIX for the Acorn is under development). I also use the Borland C++ development system extensively, and with combined projects, I need to stick to the same system as the other students.

Secondly there are certain packages for the PC that have no suitable native alternative. These include AutoRoute, which would be a great bonus for finding roads to obscure ARM Club committee meetings. There are also a large amount of CD ROMs in PC format that it would be nice to access.

My third reason is if I can spend a small amount of money (£99 is not much in computing terms) and be able to show off to PC owning friends by running Windows at a comparable speed, whilst running other (better) packages at the same time, then the already considerable “my-computer’s-better-than-yours” value of the Risc PC will be increased!

It is unfortunate that the PC486 Card also puts extra requirements on memory and hard disc space, which adds to the financial cost, but I’m trying to convince myself that I’d buy that too eventually...

Toby Smith

I am sure almost every Risc PC owner has realised by now that the PC486 Card is going to be the most significant upgrade that Acorn has released for its machines so far. It may not be the biggest and it may not necessarily be the best, but it is certainly the most important development we have seen.

For me the PC486 Card is going to have several major uses the first of which will be to help me out at work. Although the majority of applications I run on my machine run under RISC OS, there are many programs which I develop at work but am currently unable to run (even under the PC Emulator).

Secondly, my University work will be aided a great deal by having access to the whole world of PC applications that are available. Thirdly (and least important, honest!) is that it will allow me to play all of the excellent games that have been released into the PC world but have not yet made it to the Acorn platform (DOOM springs to mind!).

Andi Flower

The importance of the PC486 Card from my point of view is the significant number of doors which it will potentially open for Acorn and its computers. In the past it has been very difficult for Acorn to get a foot in the door of potential business customers because its machines failed the initial “does it run DOS and Windows?” test.

The same is true in schools where many governors and other people have turned away from Acorn machines because they did not run so-called *industry standard* software. When the Risc PC was launched some people expressed disappointment that Acorn did not appear to put more effort into marketing the new machine to new customers — this overlooked the fact that Acorn has been saving its fire until the PC486 Card is available. Let us see what happens over the coming months.

Simon Burrows

PC486 Card — The Review

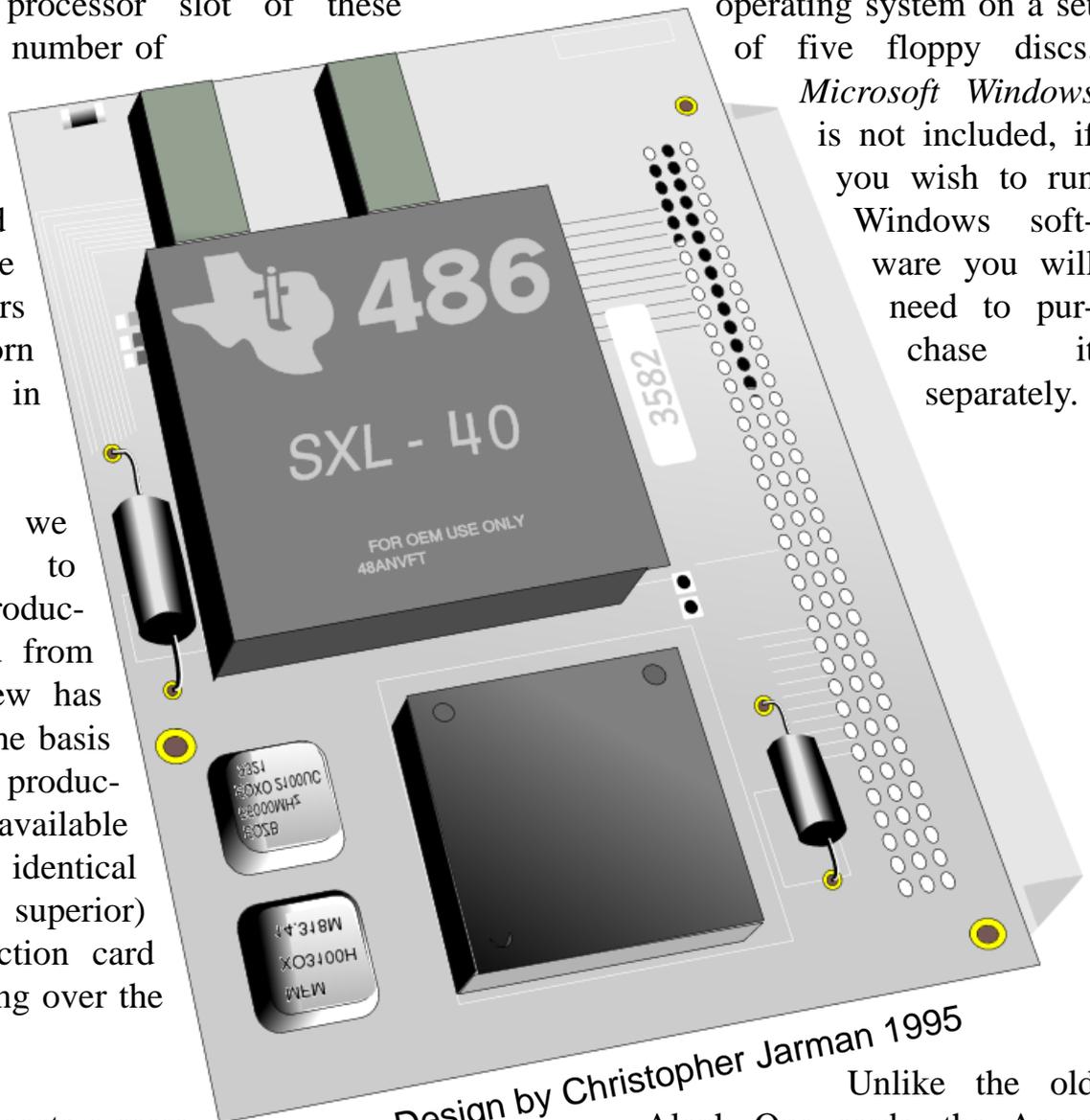
The long-awaited card is now available, what is it really like to use?

Six months have passed since we reviewed the Aleph One PC Card in Eureka. At that time it was mentioned that Acorn & Aleph One were working together to produce a PC486 Card for the Risc PC which would fit in the second processor slot of these machines. After a number of delays the card finally became available early in April and should now be on sale from Acorn dealers and from Acorn Direct (Vector) in Wellingborough.

Back in January we were fortunate to receive a pre-production PC486 Card from Acorn; this review has been written on the basis of that card. The production cards now available are functionally identical (or even slightly superior) to the pre-production card we have been using over the past months.

The PC486 Card costs a mere £99 + VAT if bought at the same time as a Risc PC, otherwise the cost is £199 + VAT. Existing Risc PC owners can buy a single PC486 Card at the reduced rate provided it is bought within three months of them becoming generally available.

For your £99 + VAT you get a package containing quite a lot: the PC486 Card itself in an anti-static bag, a disc containing the necessary driver software, a manual, guarantee card and IBM's PC DOS 6.3 operating system on a set of five floppy discs. *Microsoft Windows* is not included, if you wish to run Windows software you will need to purchase it separately.



Design by Christopher Jarman 1995

Unlike the old Aleph One cards, the Acorn PC486 Card is not a half-width expansion card (module) and does not plug into the backplane. Also unlike the Aleph One cards it cannot be used with any machine released prior to the Risc PC. Instead, the card plugs into the socket provided alongside the ARM

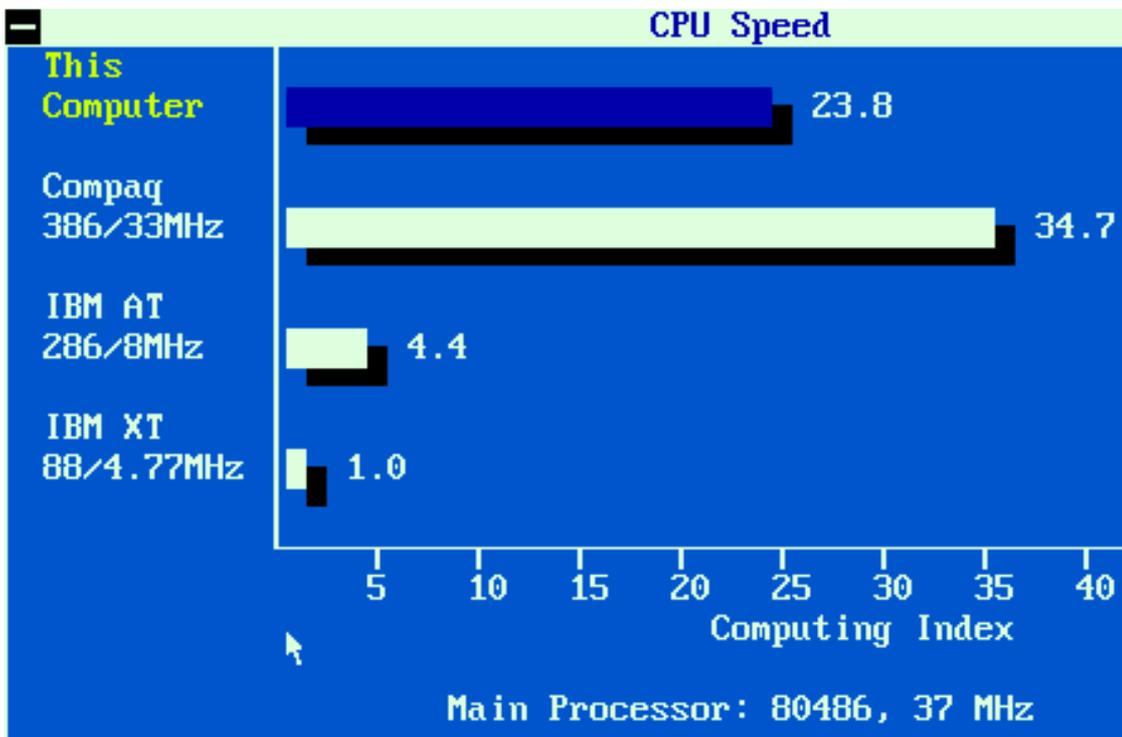


Figure 1 — Norton Speed Index running in single-tasking mode

processor card in the Risc PC. This has a number of advantages, mainly that the card does not require its own memory — it simply uses however much of the Risc PC's memory you wish to allocate it and that the performance is significantly better than even the 50MHz clock doubled Aleph One PC Card reviewed before.

The Acorn PC486 Card is physically slightly larger than the ARM processor card in the Risc PC and contains a Texas Instruments 486 SXL chip clocked at 33MHz along with the so-called Gemini ASIC and 128K of secondary cache. The ASIC is a custom-designed chip

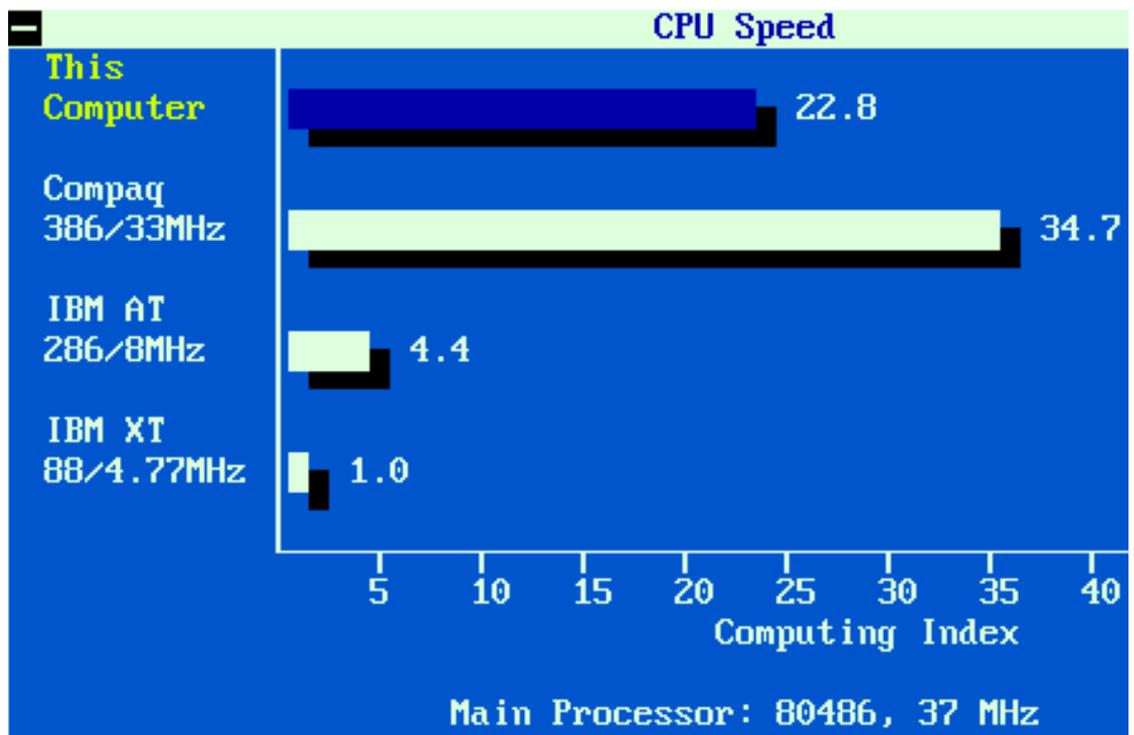


Figure 2 — as above but working in RISC OS multi-tasking mode

which performs a number of functions including bus arbitration (so that both processors don't try to access the bus at the same time) and interfacing the 'foreign' processor to the ARM bus.

Inevitably, one of the first questions to be asked is 'How fast does it go?'. This is an

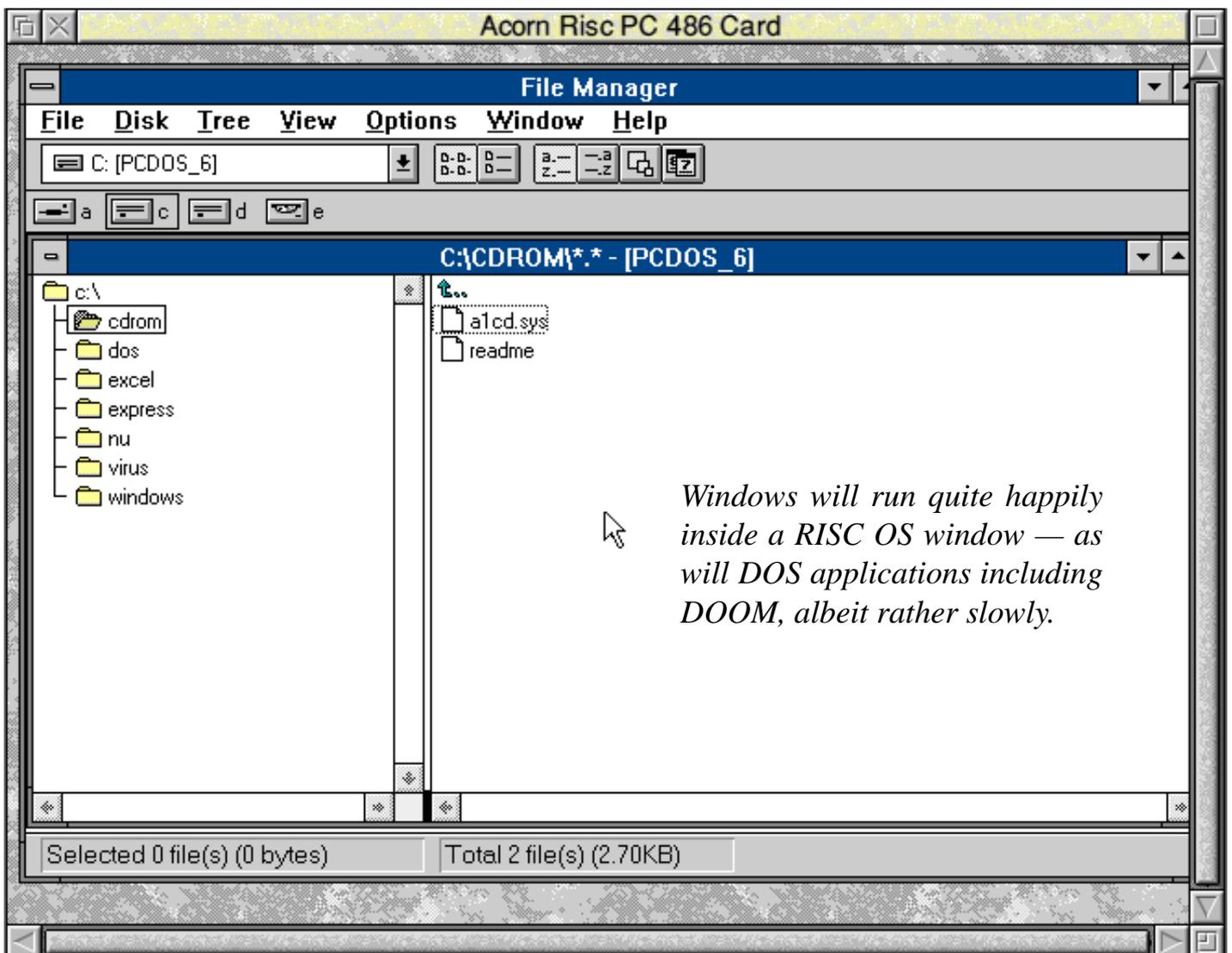
area where it is very difficult to be objective and results given by PC benchmark programs should certainly be taken with a large pinch of salt. Figures 1 and 2 show the PC card running Norton Utilities in single and multitasking mode respectively. This gives the impression that it runs significantly

slower than a Compaq 386/33MHz (notice that Norton identifies the processor as running at 37MHz rather than the actual 33MHz, indicating that something is not quite right with the benchmark). However considering that the PC486 Card has a 486/33MHz processor, it should in theory be faster than the Compaq quoted. In practice, however, there are a few technical reasons why the card does not perform quite as well as you would expect a real 486SX/33 based PC to in some areas. On the other hand, Windows performance is better because the ARM is then used as a Windows graphics accelerator. You should treat the Norton results only as a very rough guide of how the non-Windows performance is likely to compare, it does depend on the software you are running. Doom fans will be

pleased to hear that it runs at a perfectly playable speed, even in multitasking mode.

The other point to bear in mind when considering performance is that the PC486 Card does not have a numeric co-processor, nor does it have a socket for one, unlike the specification originally published when the Risc PC was launched. This can make a significant difference to the speed at which some software runs on the PC486 Card.

When multitasking in a RISC OS Window, the card's performance is not seriously impaired. However, screen update within the window is slow and floppy disc access slows to a painful crawl. In practice you are unlikely to want to use the card this way,





The hit PC games Doom & Doom 2 both run on the PC486 Card...

although the option is there if you need it. As with the PC Emulator and Aleph One cards, there are options to save the current PC display as text or a sprite.

A disc containing all the software necessary to get the card up and running is included in the package. This consists mainly of modified versions of the software supplied with the old Aleph One cards and a lot of our criticisms of that still apply to the software supplied here. No obvious attempt has been made to follow Acorn's Style Guide and the warning box which appears if you attempt to create a new partition with a name that already exists has a red title bar, making the title almost unreadable if you are using an outline WIMP font! The poor design is particularly surprising given that this is an Acorn-badged product and Acorn's attention was drawn to the problems. Thankfully the configuration software rarely has to be used.

As with the Aleph One cards, there is an option for using partitions on your RISC OS hard discs as PC hard discs or, alternatively, you can use PC formatted SCSI drives (although there is no support for PC formatted IDE discs). Using PC formatted SCSI hard discs (or Syquest cartridges), is faster and also allows you to move data between the PC card and a "real" PC. On the down side, you can't access such discs from the RISC OS desktop, so you might need to use a small partition as well in order to exchange data between RISC OS and Windows applications. An interesting problem we found was having formatted a SCSI drive first for RISC OS and then for the PC Card, we could access the disc from both environments and store different data on the disc from each. Further experimentation showed that, as we copied more onto the disc, some DOS data was eventually overwritten with RISC OS data.



Unlike the PC emulator, freezing the PC card allows you to access the partitions currently being used by the card from the RISC OS desktop. If you change the contents of a partition, DOS may not immediately recognise that you've done it and will not show changes in the directory structure. Nevertheless, this is still a very useful facility to have.

The configuration software also allows you to disable booting from floppy, useful once you've installed DOS so that the PC card doesn't start trying to boot off any old disc you've happened to leave in the drive. You can also choose whether you want direct serial and parallel port access to be supported and, most importantly, what Windows screen mode you want (a generic driver is used for all resolutions and numbers of colours) and how much memory you wish to allocate to the card.

Memory allocated to the card is shown in the Tasks window as memory allocated to a 'PC Memory' Dynamic Area. You can allocate as much memory as you wish to the card (the pre-release software only allows a maximum of 16MB), although you need to remember that the maximum memory you will be able to allocate will be quite a bit less than the total you have in the machine. Depending on the windows screen mode you have configured,

you will probably find that the maximum you use with the PC Card is anything between 3 and 4 MB less than the machine's total RAM, so if you have less than 8MB in your machine, you will probably want to upgrade it if you want to make reasonable use of Windows. For example, on a 17MB machine, a 12MB PC can comfortably be configured with sufficient memory left for running RISC OS applications at the same time.



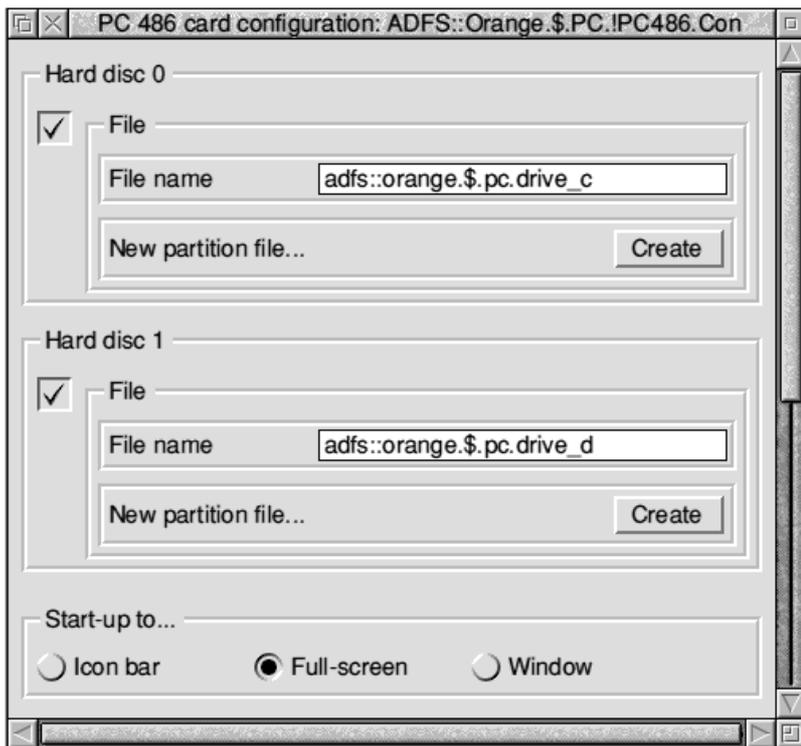
The processor on the PC486 Card tends to get rather hot in use...

Sound is, by default, limited to the standard PC beep. However the Acorn 16 bit Sound Card (reviewed elsewhere in this magazine) will shortly be supplied with a driver allowing Sound Blaster emulation when used with the PC486 Card. As far as we know, there are no plans to make the standard 8 bit sound facilities available to the PC486 Card.

The Windows video display can be set to any



resolution than you can display the RISC OS desktop in. However, the pre-release software only supports up to 256 colours although it is



The configuration software is rather poor.

planned that support for 32K and 16M colour modes will be added in the future.

For £99 +VAT (for an initial period or when bought with a Risc PC, £199+VAT otherwise), the Acorn PC486 Card represents excellent value for money. It is not exactly fast by modern PC standards, but it is certainly perfectly usable. Windows performance in single tasking mode is good, better than the existing Aleph One cards for a fraction of the cost, and we would recommend it to anyone who wants to occasionally use PC software, whether it is to work on documents prepared on a PC at work or to use applications that are not available to run under RISC OS. It is our belief that the majority of Risc PC owners will want a PC486 Card for just these purposes. If you require a card at the reduced price of £99 +VAT it is advisable to submit an order soon.

If you need faster processors then you are probably better off waiting until later in the

year when Aleph One will releasing their range of PC cards for the Risc PC second processor slot. These are likely to include a DX2/66 and possibly even a DX4 processor and will have a revised ASIC design to overcome some of the performance limitations of the Gemini ASIC. However, be warned that these cards are likely to be somewhere around five times the price.

In short, if you ever need to use Windows software and don't need a high performance PC card, then buy this card while you can get one for a mere £99 plus the usual VAT.

Mark Smith & Simon Burrows

The PC486 Card can be obtained by sending proof of Risc PC purchase along with £99 +VAT to Vector Services, FREEPOST, 13 Dennington Road, Wellingborough, Northants NN8 2BR. Tel 01933 279300. Product code ACA42.



The Harrogate Show

The third annual Acorn User Spring Show will be a fun event

The Harrogate Acorn User Show is taking place over two days instead of three this year, however this does not mean that it will be a smaller event. The organisers took the opportunity of a Bank Holiday weekend and a larger show hall to pack far more interest and activity into the Show with over sixty exhibitors expected to attend.

The highlight of the Show from Acorn will be the new PC486 Card for Risc PC users, along with the new C/C++ package, 16 bit Sound Card, Acorn Networking Products and some interesting show offers.

The Show is designed to appeal to all members of the family with personal appearances being made by television presenters Dominik Diamond and Violet Berlin. Dominik will be at the Show all day on Saturday 6th May signing autographs, trying out the activities on various stands, presenting prizes and helping out in the theatre. Violet Berlin will be at the Show all day on Sunday, carrying on where Dominik left off. Violet is best known for presenting the *Bad Influence!* programme on television. She is also resident weekend columnist on the Channel 4 Teletext magazine *Digitiser*.

As usual at Acorn-related shows, theatre presentations will be taking place throughout the weekend, presented by a wide range of companies. Visitors to the Show will have an opportunity to win a special flight for two people on Concorde, travelling at twice the speed of sound, along with a free lucky dip. The ARM Club Magazine page 13

Key Information

Venue: Hall C, Harrogate International Centre, North Yorkshire.

Dates: Saturday 6th & Sunday 7th May 1995

Open times: 9.30am to 5.30pm

Ticket prices on the door:
Adults £6.00, Children £2.50
Family £15.00

More information can be obtained on tel: 01737 814713

Visitors to the Show aged between 4 and 10 will be able to experience the *Rosie & Jim* game as well as *PlayDays* on the so-called *Little Acorns* stand while parents have time to explore the Show on their own.

The ARM Club stand will be located in the Club Corner along with the Wakefield Acorn User Group, the 8-bit Software User Group and Silicon Village.

We're really looking forward to the Show, if you don't live near to Harrogate why not consider spending the Bank Holiday weekend at one of the B&B establishments or hotels in Harrogate? A trip to the Acorn User Spring Show will make your weekend!

Club Corner

News & Developments in the Club plus some new faces...

The ARM Club Annual General Meeting took place on Sunday 19th March just as we were all recovering from the very successful ARM '95 South Open Day held at Merton Court School in Sidcup.

The usual boring topics on the agenda were quickly dispensed with, despite a rousing speech from Chairman Steve Arnold and presentation of the Financial Accounts by Treasurer John Bancroft. Steve reported that in the 15 months since our last AGM the Club had gone from strength to strength. All of the Club's events had been successful although, as always, there is room for improvement in a number of areas.

Elections to the Club Committee proved to be the most exciting event of the evening with three new people being proposed and seconded for election. They were Toby Smith, Tom Hughes and Rebecca Shalfield. The first two names will probably be familiar to regular readers of Eureka as they have written numerous articles of us in the past. Rebecca has the distinguished honour of being only the second lady member of our Committee after the founding Treasurer Maria Barreto.

With much regret our Vice-Chairman Bruce Dickson has announced his intention to stand down from the Committee having been with us since the early days of the Club. Bruce is a well-known figure in the Acorn world, many of you will have met him running our numerous courses, meetings and open days at Mill Hill School in North London. He has a great number of commitments and feels that the time has come to relinquish his Committee position, we will greatly miss his

unique contributions at Committee meetings but know that he will retain an active interest in the Club and the Acorn world as a whole. Just to prove this, our next open day will be taking place at Belmont School in Mill Hill.

Following the AGM Toby Smith became our new Membership Secretary, taking the place of Ralph Sillett who fills the new role of Events Coordinator. Ralph will take responsibility for organising our stands at the Acorn User and Acorn World Shows as well as open days, meetings and other events.

Tom Hughes is now Product Development Assistant, helping out Mark Smith who looks after the software products which the Club sells in order to raise funds and provide an outlet for members' programming skills. Products such as Game On!, SmartCD+ and TypeTutor have proved to be very successful, bringing in money which has enabled us to increase the services offered by the Club.

Finally a quick note regarding technical support. Answering queries takes up a substantial amount of our time so please make sure that you give us sufficient information to help with your problem, for example the version of RISC OS which you are using and any other relevant information. If you have access to electronic mail then this is the best way of sending questions, alternatively fax or letter can be used. If you need to telephone with your enquiry please be aware that we may not be able to give an instant answer over the phone, also please do not telephone after 9.00pm at night.

Simon Burrows

ARM'95 SOUTH

Ralph Sillett writes about the Club's recent Open Day in Kent

It was another early start for Geoff Stilwell and myself on Sunday 19th March, putting up directional signs so that those who can't read maps could find Merton Court School, Sidcup in Kent for the second event we have held at this excellent venue.

Don, the school caretaker, had set out most of the tables the previous day, saving us a lot of time. By 9.15am most of the exhibitors had arrived and were setting up their stands ready for the (hopefully) great rush... they were not disappointed. After a few minor hiccups (such as the electricity circuit tripping) the day seemed to go very well with a steady flow of visitors.

The Club's Bring & Buy Stall attracted the bargain hunters including myself, I myself managed to sell a lot of software which I no longer used. Anyone want to buy an Acorn JP150 printer? While the bargain hunters hunted through the items for sale the rest of the exhibitors were kept very busy. David Holden from APDL sold many discs of software and helped sort out

some technical problems that were put his way by visitors.

We were very pleased to welcome Geoff and Judith Potter of Safesell Exhibitions (organisers of the Acorn User Spring Show) who were running the games arcade and had a very busy day, especially as the mums and dads wanted to see the educational software available for Acorn RISC machines.

Our resident graphics guru (and Club Treasurer) John Bancroft had his 36MB Risc PC at the Open Day, showing off the virtues of Spacetech's *Photodesk*. Gordon Taylor



The Games Arcade was very popular with all age groups

from Computer Concepts was also present, demonstrating Photodesk alongside *Artworks* and *Impression*. He had a very busy day with very little free time except to visit the loo [ahem — Ed]. Gordon was very impressed by the overall response to the day.

Nick and Jane Sanham of Aspex Software had a wonderful day with many sales of Architech & Spex making the 3.00am rise and long trip well worthwhile [Architech will be reviewed in *Eureka 16* — Ed]. Also from the same neck of the woods was Ian Goodall of Creative Curriculum Software (they are based in Halifax but Ian lives in sunny Devon). He was very impressed with the variety of people attending such as teachers and parents with interest in CCS so much so that orders for over £400 were taken.

Hampshire Microtechnology Centre were having a good time with some wonderful bargains to be had and very helpful with queries on all aspects of computing along with their software products including the improved Usborne *Exploring Nature* CD-ROM. Steve Dickenson from Cumana had a very interesting day showing of the selection of CD ROMs and drives available for users of all ages including the *Oscar*, *Victor* and *Indigo* drives.

Local dealers The Data Store had a good selection of soft & hardware on sale and spoke with many of their existing customers and made many new ones. E.R.I.C International were kept busy for most of the day demonstrating to many parents and teachers how their Bear products are so successful with the educational authorities. Another big name in the educational field in

attendance at the Open Day was Sherston Software with its full range of software on show and available for demonstration. Their stand was, like all the stands at the event, busy throughout the day. Sherston's game *The Crystal Maze* proved popular in the games arcade run by Safesell Exhibitions.

Another company attending from sunny Devon which has been backing the Acorn



Exhibitors quickly started to lose their voices

market for many years was Minerva Software, famous for such programs as *CADet* (a 2D drawing package), *Prime Solver* and their newer *Map Importer* for importing Ordnance Survey digital map data. Demonstrations were also given of *Prime Mover*, *Keyboard Trainer* and *Ancestry*. Leaflets were also available from Minerva's sister company ZyNET which specialises in providing Internet access to homes, schools & businesses.

Visitors to ARM '95 South seemed to particularly appreciate the presence of Acorn itself, represented by Peter Howes, Chris Cox (Mr Clan Acorn) and Dave Walker (Mr Customer Services, FTP and everything

else). Peter expressed surprise at the significant number of visitors who were not existing Acorn owners, many of whom seemed converted by the time they left us.

Last but not least was The ARM Club's own stand being manned by Committee members who were selling many of the Club's software products, especially *Game On*. The authors of *Game On*, Mark Smith and Andi Flower along with Toby Smith, author of *TypeTutor* and Simon Burrows, the Club Magazine Editor were answering many queries from members and non-members alike. Questions were answered on many subjects including comms (particularly the Internet), hints on using *Printers* and how to best set up an Acorn RISC machine to conserve memory. I could do with 8MB on my A5000, anyone want me to test a system? [*Humph! What with the PC486 Card and producing Eureka I am going to have to upgrade my personal Risc PC to 34MB RAM —Ed*].



Members attending ARM '95 South came from as far away as Devon and many miles north of the Watford Gap. Those attending such an event for the first time were impressed with the effort put it by exhibitors and the fact that they could actually get to have a chat about a problem or make a complimentary remark about an exhibitor's or author's product.

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Most of those attending were pleased at the friendliness and family atmosphere along with being able to sit down and discuss the suitability of a certain product. Our Club Founder, Rene Barreto, also came along to the Open Day, and for me it was, at last, an opportunity to put a face to the name.

A group of keen software developers had a stand where they were demonstrating *RISC BSD*, a version of UNIX which will run native on the Risc PC. Watch this space...

I think I have gone on long enough listing everybody present but I would just like to say thank you to all those exhibitors who supported the event and to those members making the journey from near and far for your support on the day. Without you the day would not have been the success that it was.

Geoff, myself and the whole Club Committee would like to thank Mrs Price and her son Chris for their tremendous hospitality at Merton Court School.

We only had one bad thing said about the day, which came from Peter Howes but was expressed by several other exhibitors: "WHERE WERE THE BACON BUTTIES?!" Subsequently Peter did go out and buy himself a Big Mac (not a Power Mac!).

Don't forget that we are having another Open Day on 10th June at Belmont School, Mill Hill, North London to be known as ARM '95 London. Make a note in your diary now, we look forward to seeing you.

Ralph Sillett



Sleuth 2

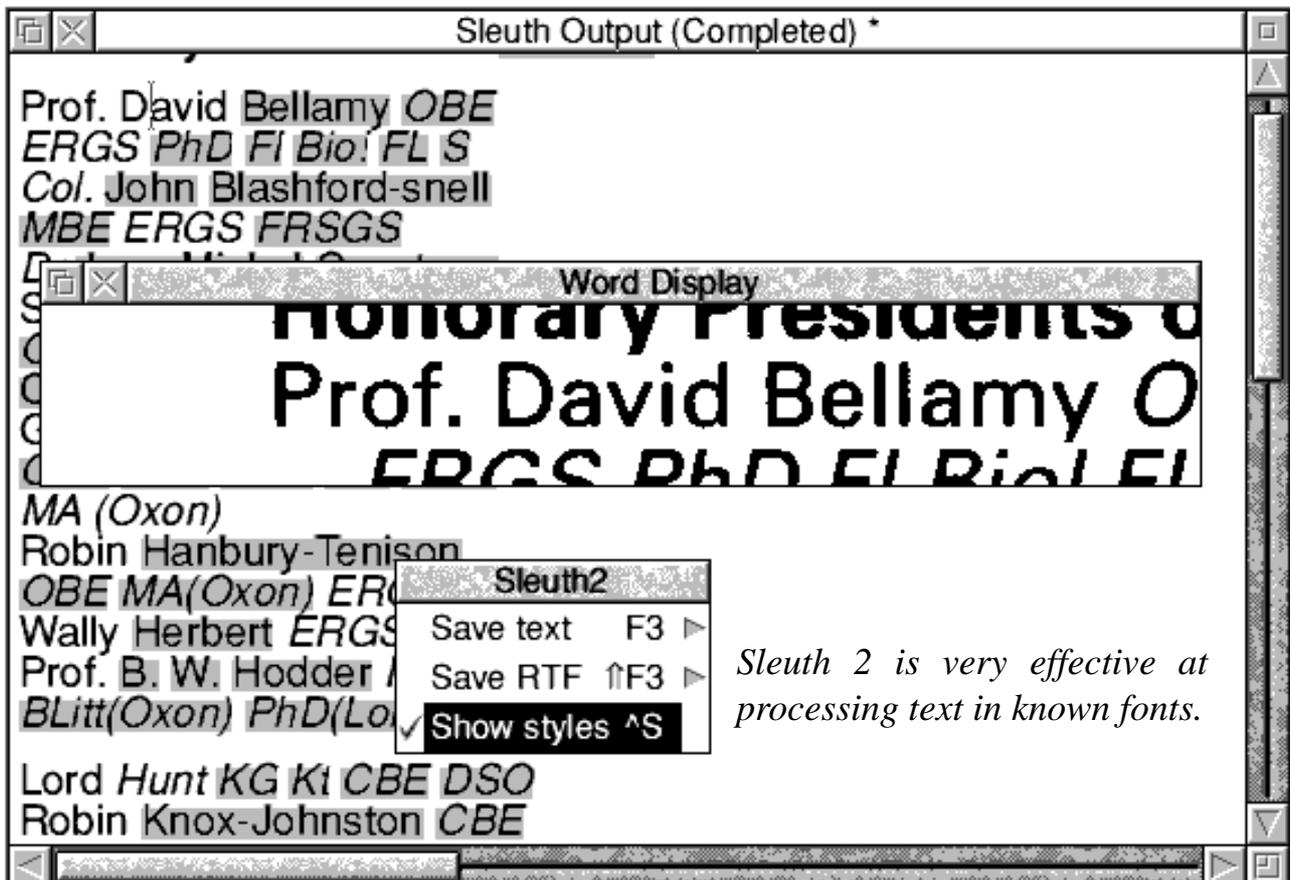
John Bancroft updates his review of this OCR package from Beebug

The latest version of Beebug's Optical Character Recognition (OCR) package *Sleuth 2* is good news for all DTP enthusiasts. It provides the technology to convert any number of paper documents into computer data. Sleuth2 can process a scanned image of printed material and converts it into a plain text file or even a Rich Text Format (RTF) file suitable for use with most decent word processors. This material can then be further manipulated as required.

OCR packages have been available for PCs for a long time, some costing several hundred pounds, the price reflecting the level of sophistication. Sleuth 2 has been trained to read approximately 100 different fonts comprising of over 20 different font families. It can recognise other similar fonts without

any further training. It can achieve an accuracy of over 90% with the most popular PostScript fonts using good quality 400 dpi scanned images. Type sizes between 9 and 24 points may be processed. Conversion speed is between 80 and 250 wpm depending on the hardware in use. Beebug, with a beady eye on customer relations, has said that it is considering a service for those who use original fonts, training Sleuth 2 to recognise new fonts for a small charge.

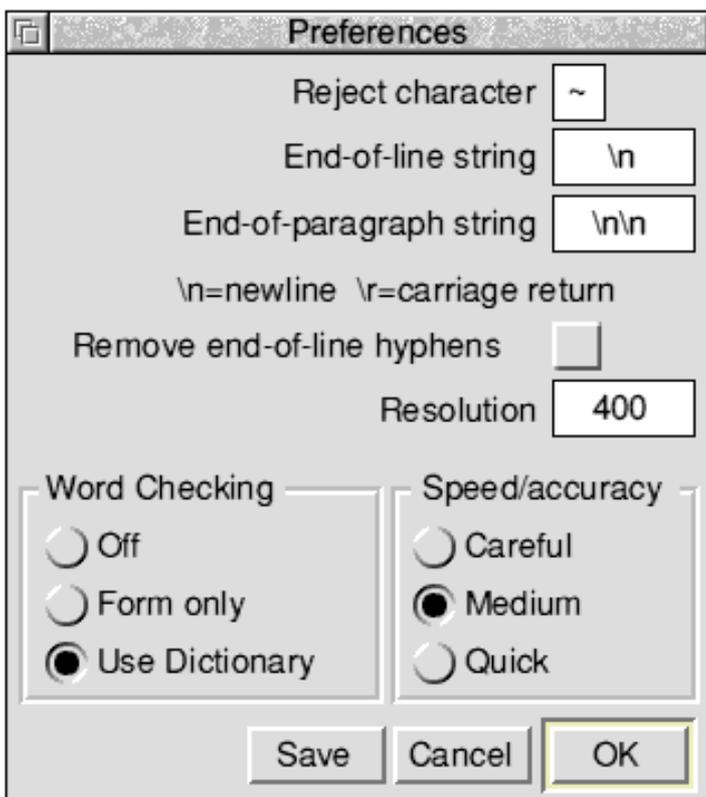
So much for the company publicity — how does the product perform? Users will require RISC OS 3.1 and 4MB of RAM, a hard disc and a scanner. The package is designed for ease of use from the humblest hand-held mono scanner to the more professional flat bed scanners. Obviously, the better the hardware the better the result. The minimum



Sleuth 2 is very effective at processing text in known fonts.

resolution required is 200dpi, but for the most professional result a 300 or 400 dpi is recommended. Larger size fonts such as 24pt should be scanned at 200dpi.

Before beginning the OCR process, it is important that Sleuth 2 is configured correctly for your needs. To configure, simply choose the *Preferences* option from the icon bar menu. This opens a dialogue box where several options can be set such as the reject character (not the pub bore with halitosis but a character which indicates any letter not recognised in the conversion process). The scanner resolution must be entered at this point for maximum accuracy; this is set automatically if you have a scanner that uses Twain compliant scanner software (Twain also allows scanned images to be loaded directly into Sleuth2 for processing).



Options available when processing text

The *Word checking* options allow you to force Sleuth 2 to limit how it checks the validity of any word. If you choose *Off*, it will only take the information gained by comparing data

about letters with that obtained from the image. *Form only* will add to this information context checking. This is necessary when letters are difficult to distinguish from one another, for example an I (an upper case i) and an l (lower case l). *Use dictionary* will add spell checking to both these options. This is the default and recommended setting. The other options could be used when the scan contains words that are not in the dictionary or where the context checking is causing problems in the output. The *Speed / Accuracy* options are fairly self-explanatory. Medium is the default and recommended setting and will give the best overall results in the majority of cases. *Quick* will improve the speed of output, but generally at the expense of accuracy. On the other hand, *Careful* will improve the accuracy but will take longer. But then, you can't have everything!

Sleuth 2 will deal with complex page layouts automatically which can include text in columns with graphics. For complex layouts, where for example, text in columns runs around an intricate graphic shape, areas will need to be zoned. A zone is a user-defined area from which text can be extracted accurately. You can easily create as many zones as necessary, and these will be output in order.

To start the OCR process, simply drag a scanned monochrome image into the input window, or to the Sleuth 2 icon on the icon bar. Select the area to be converted and click to start. The ASCII conversion is displayed in the output window and as text appears in the text window, certain words are highlighted in yellow. This indicates that the program is suspicious that the words have not been interpreted correctly. The text can



Top Travel Service – Lower Scheduled Airfa
 receive the highest levels of informatio
 such low prices. Yet that's pre
 whether you travel for pleasure,
Sleuth2
 OCR...
 Edit ▶ **Passport to travel privileges**
 Zoom ▶ **Zone**
Zone ▶ Select all ^A
 Scan ▶ Clear ^Z
 Copy ^C
 Delete ^X
 Ignore ^I
Single column ^S
 Save zones F3 ▶

The next experiment used a mail shot of reasonable quality which included a range of font sizes and types. There were various graphics on the page and a complex letter heading of 8 point sized letters. It was necessary to zone areas in this instance, and from several thousand letters, Sleuth 2 achieved a success rate of 99.7%.

be edited by placing the caret in the text and manually making any fine corrections. As it is fully multitasking, mistakes can be corrected while the rest of the text is being converted.

I carried out some test scans using a flatbed scanner at various resolutions from 200 – 400 dpi. The first document was a photocopied dot matrix printout at 400 dpi. Results were an impressive 93% accuracy considering the document's low quality. The main mistake seemed to be the confusion of the letter I with the number 1.

As a two fingered keyboard tapper, I have found the program an extremely useful application. Even a speed typist faced with repetitious documents would find this an asset. Upgrades from Sleuth 1.5 to Sleuth 2 can be obtained by returning your program disc and £49 + VAT to Beebug Ltd. The upgrade is certainly worth the extra as this version is considerably more useful than Sleuth 1.5. I look forward to the next stage in the development of OCR, maybe even converting handwritten documents on an Acorn machine.

John Bancroft


ARM '95 London Open Day

The ARM Club is holding an Open Day in North London on Saturday 10th June. The venue will be Belmont School, Mill Hill, easily accessible by tube, bus or car (via the A1, A41, A406 North Circular Road).

The Open Day will begin at 10.00am and continue until 4.00pm, a small admission fee

of £1.00 for adults and 50p for children aged under 16 will be charged on the door.

Don't miss this excellent opportunity to meet up with other Acorn users, get your technical enquiries answered and see the latest products from a range of well-known companies. More details in the Newsletter.

ARNOLD'S OBSERVATIONS

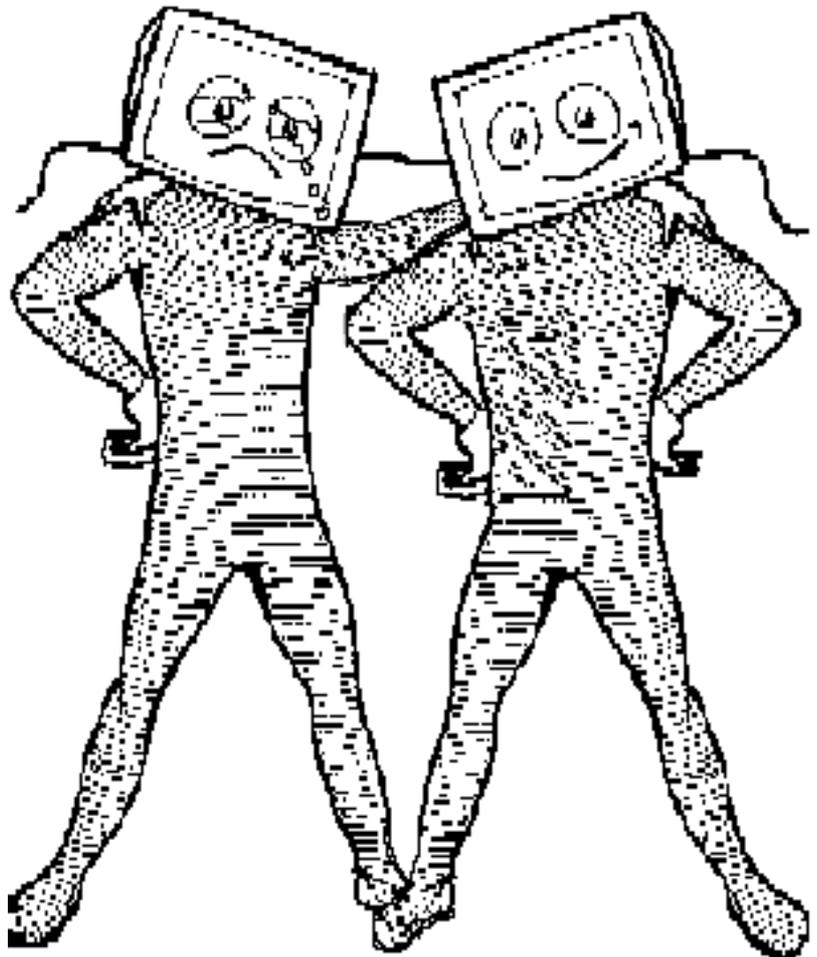
Steve Arnold looks again at the Internet

A few weekends ago I was at the in-laws, deep in the heart of quiet Norfolk. I was reading the Telegraph in a most lazy way; it's great to read a newspaper rather than my usual quick scan rags. I rarely have the time to indulge in a quality read, still that's life...

During this time I came across two articles in the Telegraph covering very different aspects of the use of the Internet. The first article was about two people (one who coincidentally shares my name but is definitely no relation!) who have been charged under the Children's Act and the Obscene Publications Act for offences related to the distribution of pornography including some relating to children. The second article relating to a couple who found love 10,000 miles apart using the Internet. This couple spent 8 months and typed around 5 million words in building their electronic relationship. No pictures were exchanged until they decided to get married.

These two articles demonstrate the dilemma that society is starting to experience with the explosion of the Internet. Depending on which avenue of the Internet you find yourself using, you can access material that can be considered as smut, some downright perverted topics some of which are totally abhorrent to all but a few individuals. However it is strange that the most accessed area on the Internet is usually in the alt.sex region. I suppose it is a reflection of

society. Now most individuals probably curiously drop in sometime as a form of mild titillation and then hopefully move on to something more interesting; however like any cross-section of society there are a few people who thrive on the extreme aspects of life and behave against any code of social conduct. These individuals have a potential for dangerous interaction within society. Just a short journey in net terms, we find an alternative more pleasant use of the Internet for social interaction — places where individuals can globally communicate in an open and honest forum on any subject that is believed to warrant interest.



Good and bad in everything...

This bridges social, political, cultural, intellectual and economic boundaries. It allows individuals throughout the world to communicate with other users on a common play ground on an topic. This creates a freedom of thought and expression not generally found in other areas of communication. But as discussed earlier it is a reflection of life with good aspects and bad aspects.

What do you think? Is the Internet too free? Or is it the last place for truth and free expression?

Me — my opinion — like most things associated with technology, it's a double edged sword — it has potential for the ultimate good of all humankind and also potential to factionalise and enslave humankind — it's down to all the users as to which direction it goes — remember Government makes laws, but it's society that keeps them and individuals that break them.

There will be various governments and organisations that endeavour to gain some

controlling influence or power over what direction and for what use the Internet is put! It must be the responsibility of the whole Internet community to decide whether this will happen. Hopefully the Internet will transcend its relationship with society and portray the beings of this planet with sensitivity and creativity.

That' enough of all that, starting to get rather heavy!

To finish on a lighter note

A security firm in San Jose USA has released a free program on the Internet. The purpose of this security program is to find the gaps in computer systems and make them harder to crack. The name of this program is:

S. A. T. A. N.

Security Administrators' Tool for Analysing Networks.

I wonder what its password is? Probably '666'... Anyway time to go —have fun!

Steve Arnold

Writing articles for Eureka

The main purpose of Eureka magazine is to allow Club members to communicate with each other and share ideas, opinions, news and experiences. If there is a topic that you feel would be of interest to other members, why not consider writing an article about it?

We can provide assistance in writing the article if necessary and sometimes review copies of software may be available if you have particular expertise or experience on a certain topic. Please contact us before writing articles to avoid duplication of articles & wasted effort. When writing
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articles, please remember that screenshots or other illustrations must be supplied. Eureka is produced using *Impression Publisher* from Computer Concepts although we can accept almost any file format.

A full list of guidelines is available from the Club Freepost address giving advice to anybody writing material for Eureka, let us know if you would like a copy. The Club Newsletter also welcomes contributions from members, contact Geoff Stilwell.

Simon Burrows, Eureka Editor



Peter Jennings looks at the new features in the latest version of Fabis Computing's font management system

EasyFont, the font management system from Fabis Computing (previously reviewed in Eureka issue 11) has now reached its third version in a year, marked by a new logo and new packaging. It now arrives in a cardboard box big enough to take four of the slim plastic cases which housed earlier versions.

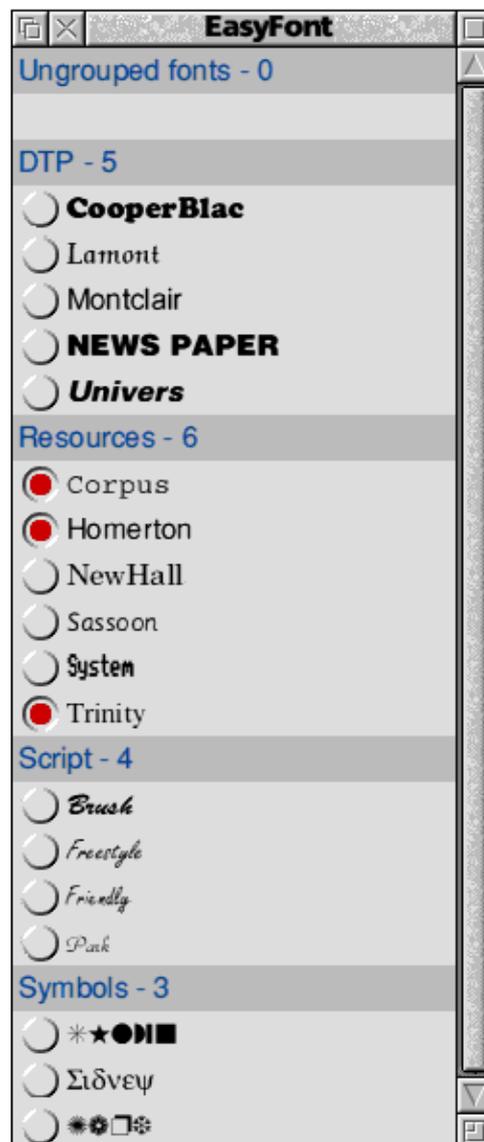
The program is still on a single disc but the manual has grown to be the same size as Eureka, although remaining easy to read and understand. The price is about a fiver more, at £35 including VAT, post and packing.

The most noticeable change is that fonts can now be displayed in different groups which can be given names of up to 20 characters long. A group could just be a batch of fonts from the same source or, more usefully, a collection of fonts of a particular type, such as formal or decorative, or those used with an individual application or for a particular purpose, such as DTP, business letters, posters and so on. A font can be included in as many groups as you wish without needing more than one copy. An interesting

new option displays the name of each font in its own typeface and this can be very useful when choosing which one you need. This option uses more memory but it can be toggled on or off. Turning it off releases the extra memory and this can solve any identity problem you may have if there is more than

one symbol font, such as Selwyn, Sidney or Zapf, whose names look more like deleted expletives when rendered by themselves. Another welcome innovation is the ability to keep the program anywhere on your hard disc instead of in the root directory which was mandatory for the earlier versions.

The ability to allow applications to access fonts without running EasyFont first has also been improved. Individual fonts can now be installed or uninstalled with the star commands, FontOn and FontOff. These can be included in !Boot files, run from within applications or typed at the command line or anywhere else where star commands are used.



Fonts can be grouped according to use or in any other way



EasyFont has always had a valuable second role as a styles designer, allowing you to tailor the look of a font by applying any or all of a supplied selection of styles and weights, including condensed, oblique, slanted, extended, uneven, semi-light and semi-bold. Now you can go further and transform an existing font even more drastically to suit your own requirements and taste. Once created, a style can be applied to any loaded font which will accept it although some, including the three *resources* fonts in ROM, cannot be changed in this way.

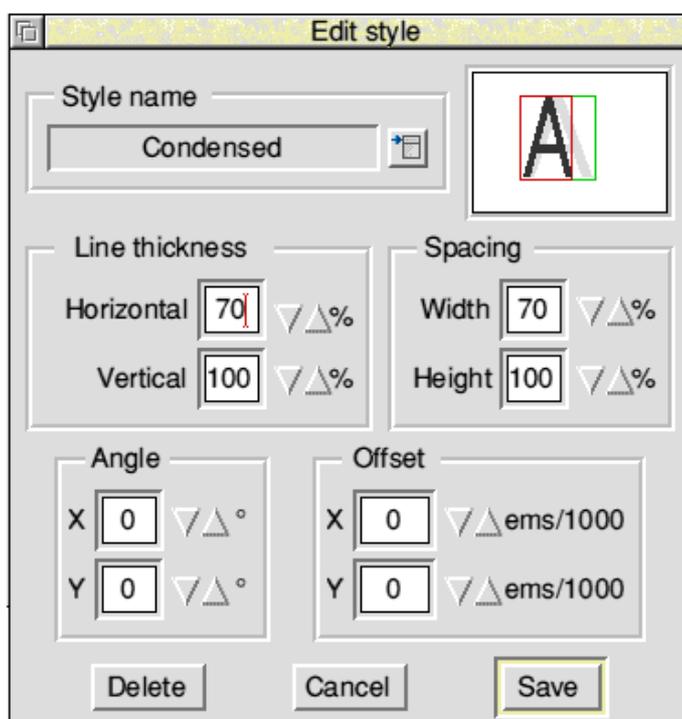
This customising is carried out from the font viewer's *New Style* window which has been redesigned. It now shows a grey capital "A" in the base style you have chosen, which remains unaltered as a reference, and a black one which changes as you indulge your creativity by amending line thicknesses, spacings, angles and offsets.

These can be changed a percentage or degree at a time until you see the results you want. Designing a font style may seem a rather ambitious project, particularly if you do not know what sort of effects you will get by changing characteristics such as spacings, angles and offsets. In fact EasyFont makes it delightfully simple. As well as being able to watch each change as you make it, all of the possibilities are clearly explained and illustrated in the manual so that you can decide the exact effect you want before you begin.

A minor change in the program which is important to note is the way that a font can be removed. Instead of clicking adjust, which used to transfer it to a "\$.Removed" directory, which would be automatically created if necessary, you now have to save it

to somewhere of your own choosing with the *Remove* option set and this deletes it from EasyFont. A complete group of fonts can be removed in the same way.

One enhancement which you may not find of too much interest is that instead of being restricted to "over 5900 font families", with a choice of 380 available at any time, there are now no limits to the number the program will handle. As my fonts collection is still rather short of the previously accepted maximum, you will have to check this yourself if necessary.



Adjustments are shown as they happen...

To sum up briefly, EasyFont 3 does two very useful jobs simply and well. It manages your fonts and allows you to keep them all together, ready for use, in a way which saves up to 40 per cent of disc space, and it provides your existing typefaces with a wide range of new looks at no extra cost. It is good value at £35 and users of earlier versions can upgrade for £10 and the return of the original disc.

Peter Jennings

Risc PC 16 bit Sound Card

Phillip Wallis explores the latest upgrade to Acorn's newest machine

The VIDC20 controller used in the Risc PC caters for video and sound output while its internal sound DACs (Digital to Analog Converters) are used to provide the 8 channel sound (using 8-bit μ -law format) employed in standard 32-bit RISC computers.



The installation software is simple to use

The Acorn 16 bit Sound Card has been designed to exploit the full 16-bit linear stereo sound output capabilities of VIDC20. With the Sound Card installed and the CMOS RAM suitably configured, all the sound output (μ -law and 16-bit formats) will utilise the 16-bit sound path and not pass through the VIDC20 μ -law DACs. This achieves the best sound quality possible but requires that software emulation is used to support μ -law sound format for compatibility.

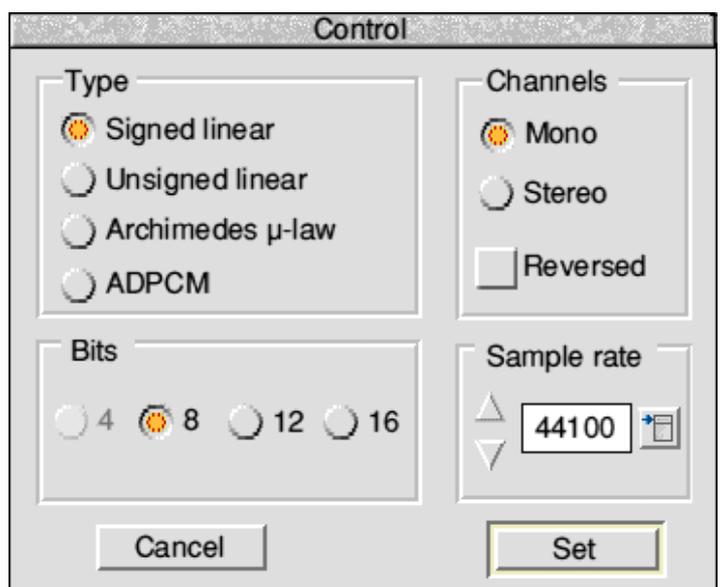
The 16 bit Sound Card for the Risc PC consists of the card itself, a floppy disc and a user guide. The sound card itself is quite small in size and employs various surface mounted integrated circuits having two connectors, the first being a 6 pin 11S connector and the other is a 5 pin audio connector.

Installation

Installation of the hardware is carried out by

disassembling the computer to gain access to the main printed circuit board and locating the 6 pin header next to the VIDC20 chip along with the 5 pin audio header on the right hand side of the board. Diagrams in the user guide aid in locating these connectors, the only problem that may be encountered is that some early Risc PC motherboards do not have the 5 pin audio header fitted. In my case the connector had only 4 pins provided and required the connector to be fitted in a different position on the header to allow the correct operation to be obtained. If no header has been fitted to your board this can be remedied by using the Acorn on-site warranty provided with the Risc PC [*I had exactly this problem and found the on-site service engineer extremely helpful —Ed*].

When the sound card has been located onto these headers, the computer can be reassembled and tested. If all is well you can proceed to the next stage, the installation of the software.



Various options are provided

Software

The disc contains three applications !*Install*, !*Player* and an updated version of Acorn's !*ARPlayer* — also provided are various demonstration 16-bit digital audio samples. The first application to be run is !*Install*. This provides installation or de-installation of the new sound DMA and the 16-bit Replay modules. Install copies the former into the *PreDesk* directory of the Risc PC !*Boot* system and updates !*ARMovie* with the latter, the CMOS RAM is also configured to indicate that the card has been installed.

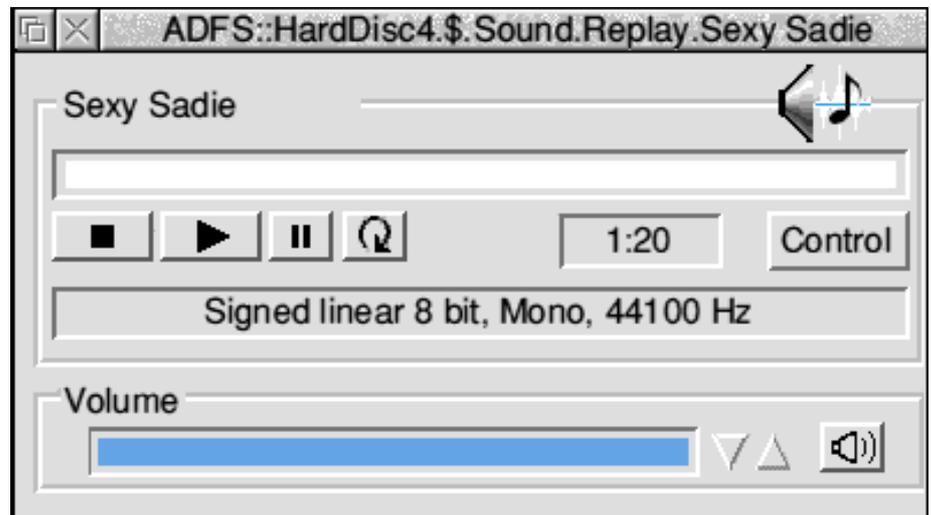
The application !*Player* provides playback facilities for a wide range of digital sample types and rates. These can be selected from !*Players* control panel, various options are available and these are as follows: **TYPE** Signed Linear, Unsigned Linear, Archimedes μ -Law, ADPCM. **BITS** 4, 8, 12, 16. **SAMPLE RATE** variable from 5000Hz – 50000Hz. **CHANNELS** Mono, Stereo or Reversed Stereo.

CD quality sound is possible with these settings: 16 bits, Stereo, 44100Hz (44.1KHz). The user guide also has an in-depth section on the programmer's interface for use with the software supplied.

Conclusion

To get the benefit of the 16 bit sound card it is essential to connect the output of the headphone socket to a high quality amplifier and loudspeakers — the sound from the Risc PC's internal loudspeaker will not do the upgrade justice.

The subjective audio performance was judged to be excellent on 16-bit sound samples with great clarity and good dynamic range equal to the performance of a high quality CD player. The 8-bit sound performance was also found to be satisfactory and therefore this product can be recommended for all Risc PC owners who are interested in high quality sound from their computers and who do not intend to rely upon the internal speaker of the computer.



CD quality sound output from your Risc PC

The Risc PC 16 bit Sound Card costs £59.95 +VAT (£70.44 inclusive) and is available from Acorn dealers, product code ACD05. Further information about the card can be obtained from Expressive Software Projects (ESP), Holly Tree Cottage, Strelley Village, Nottingham, NG8 6PD.

Phillip Wallis

The Risc PC 16 bit Sound Card will shortly be supplied with drivers allowing it to emulate a PC Sound Blaster card when used with the Acorn PC486 Card. This will greatly enhance the sound capability of the PC486 Card from the current system beep only.

Badgemaking with the Archimedes — Part 3

Just over 2 years ago in Eureka issue 6 we wrote of our experiences with our A3000 and dot-matrix printer to produce badges using 4Mation's *Poster* software. Since then we have upgraded to an A5000 with colour inkjet printer (HP550C) and been able ourselves to explore the effects we suggested of colour printing in reverse on OHP transparencies which are then placed ink side down over multi-coloured reflective foil to produce eye-catching badges.

This has worked as we thought it would but the black ink does not take very well on the transparencies, so it is better to print onto paper and photocopy onto the transparency as we did before if black printing is required. However the colour works satisfactorily and enables us to be more creative in our designs.

Having upgraded to a 17" multi-frequency monitor we invested in a Colour Card Gold and Eagle M2 multimedia card from Computer Concepts.

We have from time-to-time seen stalls in shopping malls offering badges made with a video camera and printer, so we decided to see if we could go one better with a computer and add writing to the picture. We have demonstrated this at 2 ARM Club Open Days,

the first within a couple of days of getting the equipment — our inexperience showed [*I disagree! Ed*] but we are learning all the time. As the video camera uses the Hi-8 standard and the Eagle card is capable of using the Hi-Band output of this format (or SVHS) we purchased Artworks to make best use of the deep sprites we could obtain. Acceptable results can be obtained from normal VHS although the extra definition of Hi-Band is noticeable. Both live and tape video can be captured.



ArtWorks design using picture moulding

The main areas to watch are the background and the lighting. We started with the intention of separating the picture from the background, and tried a white background, but our video expert (Helen) soon explained that this was not a good idea because it fooled the camera into an

incorrect white balance setting and upset the colour rendition of the subject. Having decided that it would not work we then tried a piece of blue cloth which although an improvement was slightly creased and the camera, not wishing to lie, showed all the creases.

The next development with which we are

reasonably happy was to make a board covered in a near to maroon sugar paper which is supported behind the subject just far enough away for the camera not to show every small detail of the grain. As in photography the position of the lighting is important if the contrast is to be kept within usable amounts.

Care should be taken to avoid shadow on the background, perhaps by a light behind the subject cancelling out the effects of the main light in front. Placing the main light high can also help in this respect, but as Steve Arnold found, this can be embarrassing for the follically-challenged.

Time and experiment will find the best set-up, but the lighting need not be expensive. We use halogen security lights, as found in the major DIY emporiums, and fix these to home-made stands. There is a limit to the size of image that can be grabbed and printed from the Eagle of 768 x 288 pixels. Although we can grab larger pictures and display them in Artworks, they do not print out so it is vital to frame the image in the camera as



close as possible to get the best definition on the paper. Using the masking and text manipulation facilities in Artworks or masks made in Draw and converted to one path in Draw-Tools we have been able to produce identification badges similar to the illustration, and these of course look even better in full colour.

We have 4MB of memory in our A5000, but even this amount is soon used up with 300K sprites, so about 2 to 3 images a page is about the most we can handle at present. While Poster is still used for simple badges with Draw pictures, the extra effects in Artworks mean that even more imaginative designs are possible including moulding pictures as well as text.

The next development? More memory and an image manipulation program such as PhotoDesk or PhotoTouch. Perhaps we will have more to report in a another couple of years...

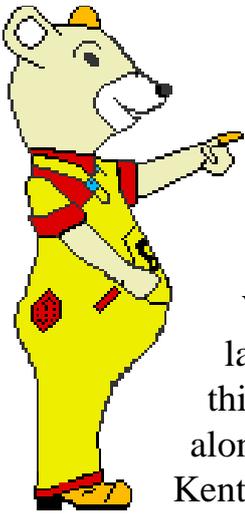
Words by Roger Claringbull
Illustrations by Andrew Claringbull

Australian Risc Magazine

Shortly before this issue of Eureka went to press we received a copy of the Australian Risc Magazine, a new subscription magazine produced by Alan Jones & Chris Taylor. This is the first ever issue of an 8-copies per year magazine and consists of 30 pages of A5 text

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similar in some respects to Eureka. Individual subscriptions cost A\$50 for 12 months. More information is available from: Australian Risc Magazine, 241 Hawkesbury Road, Winmalee, NSW 2777 AUSTRALIA. More details will appear in Eureka issue 16.



ERIC International

Geoff Stilwell writes about an unusual educational venture



I first met Peter and Pauline Worley at the Kent IT Show last July and again at BETT this year where I invited them along to the Club Open Day in Kent. When I had a few minutes respite from the hustle of the Day at Merton Court School in March I snatched the opportunity to talk to them about their software company, ERIC. The letters E.R.I.C. I already knew stand for Educational Resources In Computing, but what about the people behind ERIC? How did it all start?

Peter and Pauline are both retired teachers. Peter was the IT coordinator of a school and rose to be a head teacher. Pauline was a deputy head for ten years and became a head for a short while. They unashamedly describe themselves as disciplinarians.

Peter's first experience of computers was with Commodore Pets while Pauline learnt her stuff on mainframes. Peter wrote the odd program and his colleagues suggested he sold them. But it took a rather tragic occurrence to propel them both out of teaching and into the world of commercial educational software.

A terrible car accident left both Peter and Pauline seriously injured. Doctors told them that their injuries would prevent them from doing many of the things they enjoyed. But they would not be fobbed off with this defeatist talk. They set their minds to getting

themselves back to health and succeeded.

After their unexpected recovery they both went back to teaching but found that things weren't quite the same and in 1990 and 1991 Pauline and Peter respectively took early retirement.

The first commercial product they produced was "Tables and Number Bonds" for the BBC. Other products followed. The schools started coming to them asking for software that did what they wanted but was easy to understand. This developed into the user-friendly word processor and DTP program, Bearwords. This has been accompanied by Bearsheet, the spreadsheet, and BearBase, the database. All the Bear products have an almost identical look making it easy to move from one to the other. The word processor has now moved up to Bearwords2 with many enhancements over the original and ERIC is working on integrating the three Bear products into one called BearWorks.

"How did the name come about?" I asked. "I was originally going to call ourselves G.C.S.E. Good Computer Software for Education," said Peter, "But Pauline wouldn't have that. So we sat in bed one night playing with names and acronyms until we came up with ERIC. The Bear was a present from Mum and came later. "International" was added in the last year

because we are now selling to Australia and New Zealand. Bearwords is being translated into Dutch and will be sold in The Netherlands and South Africa.”

“Where do you advertise your products?”

“We don’t advertise,” said Peter. “Our products have been sold mainly through word-of-mouth. Sales people do approach me offering advertising space in magazines. I tell them I can’t afford their prices. I suggest a deal: if they give me a free advert I will give them 10% of the business resulting from that ad. They never take me up on it. They can’t have a lot of faith in their advertising!”

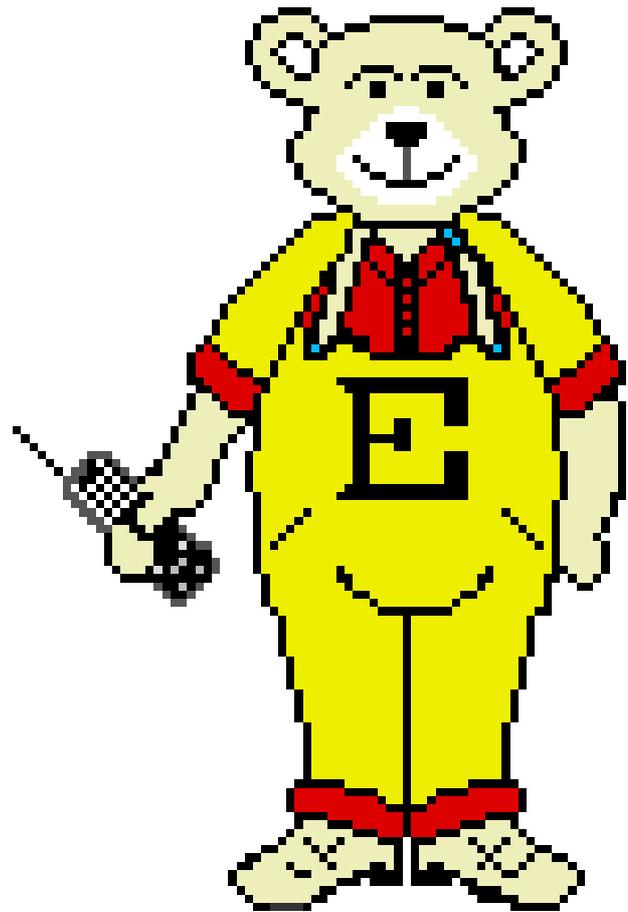
Peter and Pauline aren’t the only people involved in the business. They’ve managed to persuade several of their retired friends to come and help them at home and when they go to exhibitions. Mike and Maisie I met at KIT last year. Mike is a retired teacher who still does a bit of home tutoring but is often to be found demonstrating Bear products on the ERIC stand. Maisie is a secretary and does most of the administration of the business. Colin, who I met at our Open Day, is a relative newcomer but is also a retired friend, roped in to help on the day. Brian is the programmer. He is the backroom boy who constantly has to think of ways of incorporating suggestions from teachers for enhancements to the products.

“What do you enjoy most about your work with ERIC?”

“Meeting people,” they both replied, “and meeting people’s needs. ”We travel all over the country talking to LEAs and advisors. We do INSET courses for teachers in schools.“

“I insist that heads give their teachers time to practice the skills they learn on our courses,” said Peter. “Nothing is learnt properly in one

day. You need time to practice. One head teacher made time for his teachers to practice by reducing assembly time.”

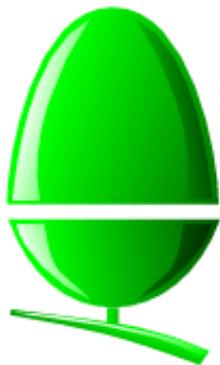


“Where is ERIC going in the future?”

“We are planning to convert our products to the PC and Apple platforms and we’re also looking for inexpensive ways of producing CD ROMS. We have several ideas for new products but we need programmers. If any of your ARM Club members have programming talents we could certainly give them some work.”

If you are a programmer and are interested in Peter’s offer you can contact ERIC on 01903 872400 or write to E.R.I.C. International, Pepabera, Findon Road, Findon, West Sussex BN14 0RD.

Geoff Stilwell



Acorn News

Acorn will not be using the Harrogate Acorn User Show to show any new computers, however the PC486 Card, 16 bit Sound Card and C/C++ package will all be available for sale at the Show. Several forthcoming products will be demonstrated, for example *InterTalk* which will enable school and home users easy access to the Internet using a modem.

A new version of *Acorn Advance* has been released with the following improvements: removal of the Software Protection Scheme, making installation quicker and easier. Increase in maximum spreadsheet cell size from 5,000 to 10,000. Full compatibility with Risc PC. The upgrade is available by sending proof of purchase along with £29.95 (£39.95 for primary sites, £49.95 for secondary) to Vector Services, FREEPOST, 13 Dennington Road, Wellingborough, Northants, NN8 2BR.

Acorn has launched a free video for primary school teachers, presented by Judith Hann of *Tomorrow's World* fame. Entitled 'Making IT Work — A Video Guide for Primary Schools' the video features children and teachers talking about their real-life IT experiences as well as checklists, facts and ideas about the key issues of multimedia computing, computer networks and funding, intended for IT coordinators, teachers, heads, governors and teacher trainees. To obtain a free copy of the video, look out for the direct mail coupons or write to: Online Services, Acorn Computers, 700 Great Cambridge Road, Enfield, Middlesex EN1 3EA stating your name, position, schools address and telephone number.

Despite Acorn's poor financial results last year and a number of staff being made redundant from the company, Managing Director Sam Wauchope seems very optimistic about the future. He believes that both Online Media and ARM Ltd have very bright futures, attributing Acorn's poor results to the fact that primary schools had very little money available last year to spend on A3020 and A4000 computers.

Acorn is holding its annual IT conference from 14–15th July, formerly called Access IT but now called *insIghT 95*. Held at a four star hotel in Leicestershire, the event is intended for everyone involved in planning or implementing educational IT strategies. The attendance fee is £249 +VAT per person.

In a somewhat secretive manner Acorn has launched a new promotion whereby purchasers of the A4000 computer are entitled to receive a free CD-ROM drive. More information is available from Acorn dealers.

For the fourth year running, Acorn has teamed up with Tesco supermarket in the Tesco Computers for Schools promotion. People making purchases at Tesco will receive a voucher for every £25 spent which can be redeemed by schools for Acorn-related hardware and software. Since the introduction of the scheme in 1992, more than a third of all schools in the UK have benefited from over 64,000 items!

A lot of other Acorn news has appeared over the past few months, more can be found on the Eureka disc & in our last Newsletter.

Simon Burrows

The ARM Club Magazine page 32

Letter from the Chairman

Hello Everybody. This is my first formal letter as Chairman of The ARM Club, so that's my excuse out of the way.

The ARM Club

Over the last few years the Club has grown significantly and seems very successful — much of the credit must go to the unsung heroes, your hard working Committee who do this activity for fun! Still nowt as queer as folk. Joking apart, the Club Committee represents the heart and brains of the Club and indeed, without them there would be no ARM Club. I would like to take this opportunity to thank them for their continued efforts in supporting the Club and its activities. I'd also like to thank the Committee members' loved ones for their understanding and immense patience & silent suffering.

I consider it a privilege being the Chairman of this Club, it has blossomed into one the premier user groups in the Acorn world. However I am acutely aware that we must not allow the Club to rest on its laurels — it needs continued development and further involvement of its members to continue to go forward.

User Groups

As I mentioned in our last newsletter, I would like to elude to a couple of ideas that I'd like to propose on developing the Club. I have stated on many occasions that I would like to see smaller local clubs start-up and evolve to meet the local needs of Acorn computer users. It would be The ARM Club's role to act as umbrella organisation, helping little clubs to develop and grow. Other major user groups could also be involved in this project and then we could end up with a full blown Acorn user community.

This is not the first time this has been suggested but I tend to think it has been misinterpreted by some as a sort of 'Big Brother' exercise — this is a very long way from what The ARM Club is about. We don't have the desire or the resources to act in such a way and in the long run such an approach would be doomed to failure. We need to support and require the support of the Acorn community to achieve our aims.

As stated in the newsletter, it has been part of The ARM Club's mandate to promote and assist in the development of local user groups. However I would like to propose that we expand this to incorporate affiliation of other user groups. This activity will have two aspects, the creation & development of local clubs/groups and to develop closer ties with other existing user groups. With this aim in mind I would like to suggest an open affiliation for any Acorn user group with The ARM Club. This would have benefits for all parties as I will explain.

Affiliation System

The affiliation scheme would work as follows:

1. Each user group would remain totally independent and self supporting.
2. A formal supporting membership of both the user group and The ARM Club should exist.
3. Yearly contact meetings to be arranged to discuss and review each Club/user group status.
4. A register of all user groups, their location and their club secretary details to be logged and made available.
5. Financial Support will be given to user groups in the following ways: (either option **a** or option **b**)

a) Membership refund/kickback — for each individual who is a member of The ARM Club and also a member of a local user group, that local group will be eligible to receive a £2 donation from The ARM Club for its own benefit. Some form of verification of the local user group's existence will take place.

b) Group discounts for memberships/products — each user group/club that has more than six members who are also members of The ARM Club will be eligible for a bulk group membership discount. This discount would be 33% per individual (ie. ARM Club Membership will cost £8 per year rather than the normal £12 per year). The discount on ARM Club software products will be increased by a further 5%.

Benefits of Association with The ARM Club

- Assistance and support in staging local events

The ARM Club will give support and assistance to local user groups in

staging local events. This support make take various forms, from financial or technical assistance to advertising or even direct involvement if requested.

- Involvement at major events (Acorn World etc)

This will involve either joint ventures with parties agreeing to share resources and costs for major events, or else on a limited contribution basis with one party being prime and other parties being associates.

- A dedicated section of Eureka Magazine and/or our Newsletter to give local information about clubs and events: a full blown description of what goes on in each user group, where and when it meets and its planned events. This will be released in each issue of Eureka and can be updated as required.

- PD Library

Lots of clubs have PD Libraries, however it would be useful if a master index of all PD libraries and access details were available. Each individual library could then appropriate additional items to improve the quality and selection of their own individual PD Libraries. This could be provided on a swap basis.

The fine detail of these proposals will need to be tied down and then agreed by the membership. If you know anyone who is a member of other user groups or clubs, or if you are in this position yourself, please discuss these proposals and feedback to let us know what you think. If you have any comments or wish to add further areas that could be considered, please write to the Freepost address and let us know as soon as possible.

I trust that this will open a good debate for ARM Club members as well as the Acorn Community as a whole.

Regards



Steve Arnold

Acorn C/C++

Mark Smith writes of his first impressions using Acorn's new programmers' development environment, particularly looking at the new Toolbox suite included

It has been a while since any changes have been made to Acorn's Desktop Development Environment and the associated C and Assembler packages. Now Acorn have released a new C/C++ package with a number of enhancements.

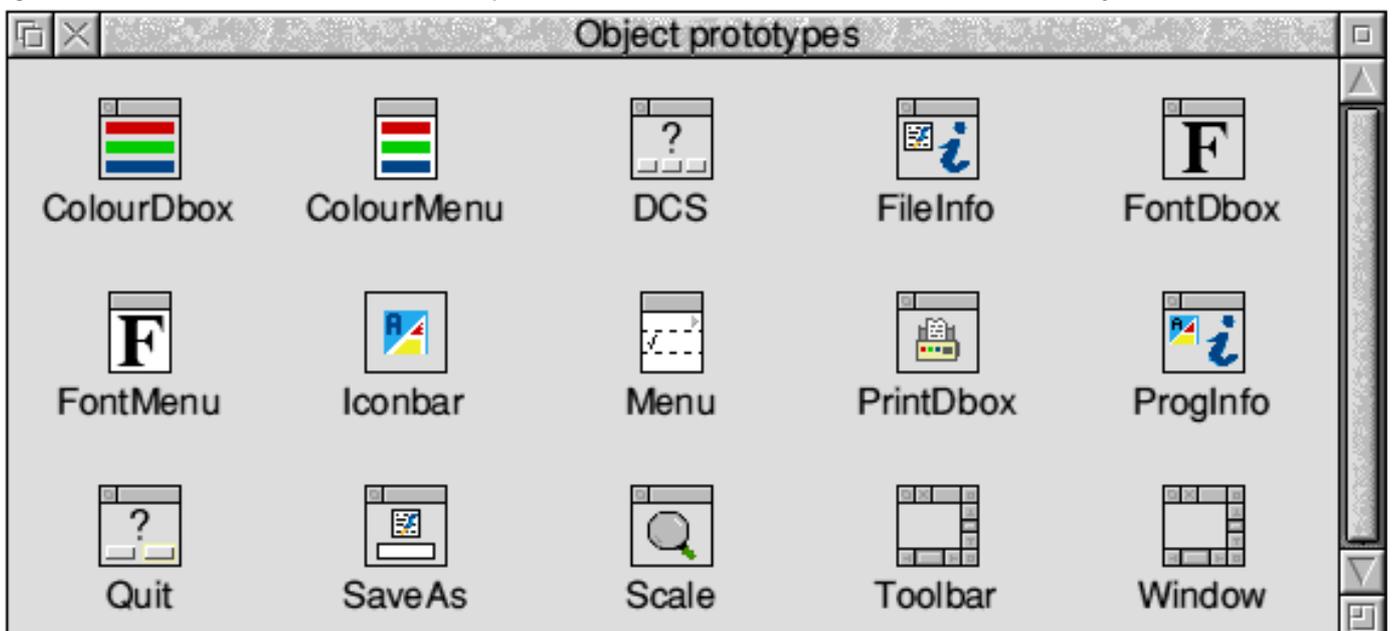
Firstly, as the name suggests, there is now a C++ compiler. However, it is not a native C++ compiler, but a port of AT&T's CFront version 3 which turns C++ code into C code and then uses the Norcroft C compiler to compile that.

Secondly, the C compiler is now at release 5 with improvements that, amongst other things, allow it to generate somewhat faster object code. A new version of *ObjAsm* is also

included, combining the previously separate C and Assembler packages into one.

However for many programmers the most important new feature will be the User Interface Toolbox. This replaces most of the functionality of the ageing RISCOS_Lib which is no longer provided and in such a way that it can be used from any language, be it C, C++, BASIC, Assembler or any language you choose to program in.

It is worth noting that the Toolbox will not work on any OS prior to RISC OS 3.1. This means that any software you write using it will not be usable by the 20% (at the time of writing) of the user base still using RISC OS 2. However, it is also likely that this 20% of



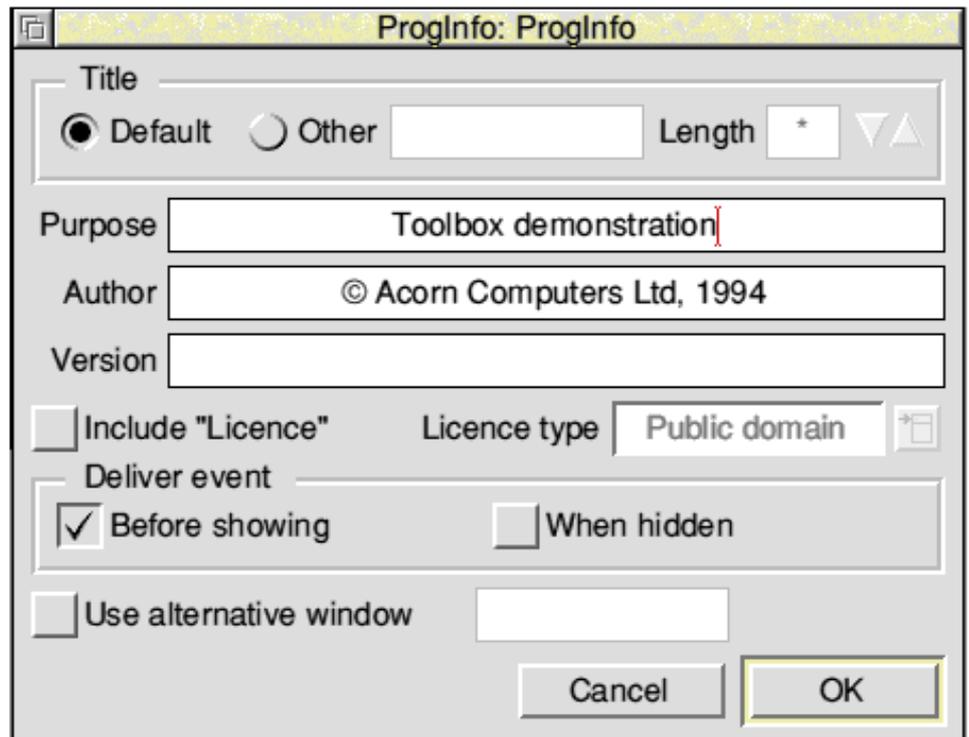
The Toolbox is designed to encourage the development of Style Guide compliant applications

the user base is the least active 20% and includes many schools that continue to use existing software many years old, often because they simply don't have the money either to buy RISC OS 3.1 upgrades or new software.

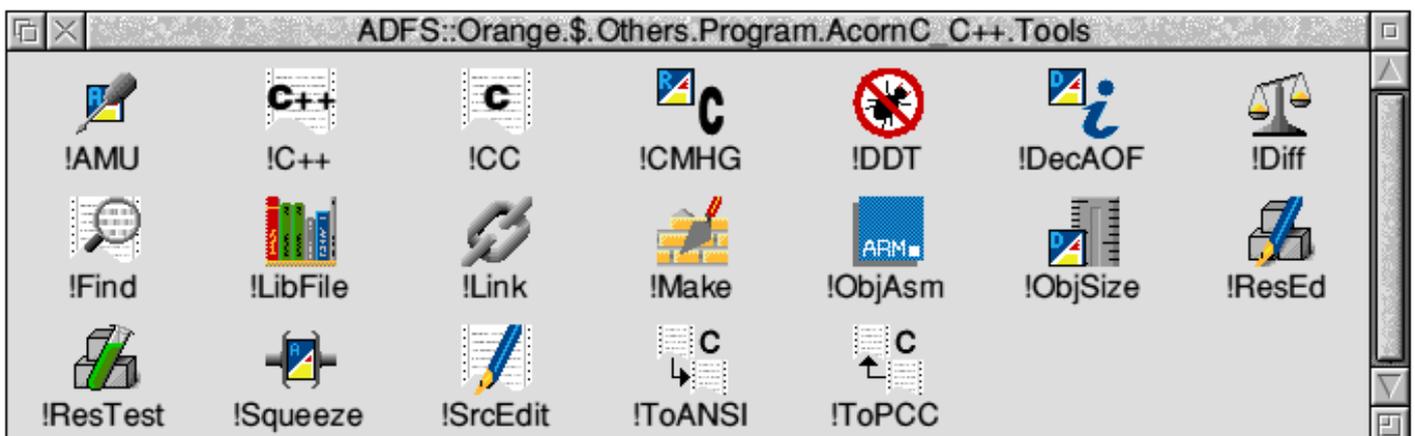
The Toolbox is an extendible collection of modules, each providing support for a class or classes of objects together with the main Toolbox module. An object may be a menu, a window, a standard dialogue box, a toolbar or an icon bar icon. Whereas the Wimp provides an application with details such as which icon number the user has just clicked on, the Toolbox provides information at a very much higher level of abstraction such as which scale factor the user has chosen from a scale dialogue box.

A new application, *ResEd* replaces the distinctly aged *FormEd* application. This allows you to design any objects that you wish your application to use. Standard dialogue boxes, info boxes and menus do not need to be designed as they are provided for you — all you need to decide is whether you

want 'Selection' options in your Save as boxes or 'Scale to fit' action buttons in you Scale boxes and so on. In addition, you can use *ResEd* to link objects together. So for example, you set up an icon bar icon, design the icon bar menu and link them so that the menu appears when you click menu over the icon, all without writing a single line of code. Another application, *ResTest*, is also provided to enable to test your resources. The overall effect of using the Toolbox, is to enable client applications to provide the minimum of user interface code and concentrate on actually carrying out the task it is designed for. C applications no longer



The Toolbox attempts to make programming painless...



need the overheads of RISCOS_Lib making the average size of a Wimp application significantly smaller. However, the Toolbox modules necessary to implement all objects used by an application do need to be loaded, possibly creating a greater overall code overhead where only one or two applications are using it.

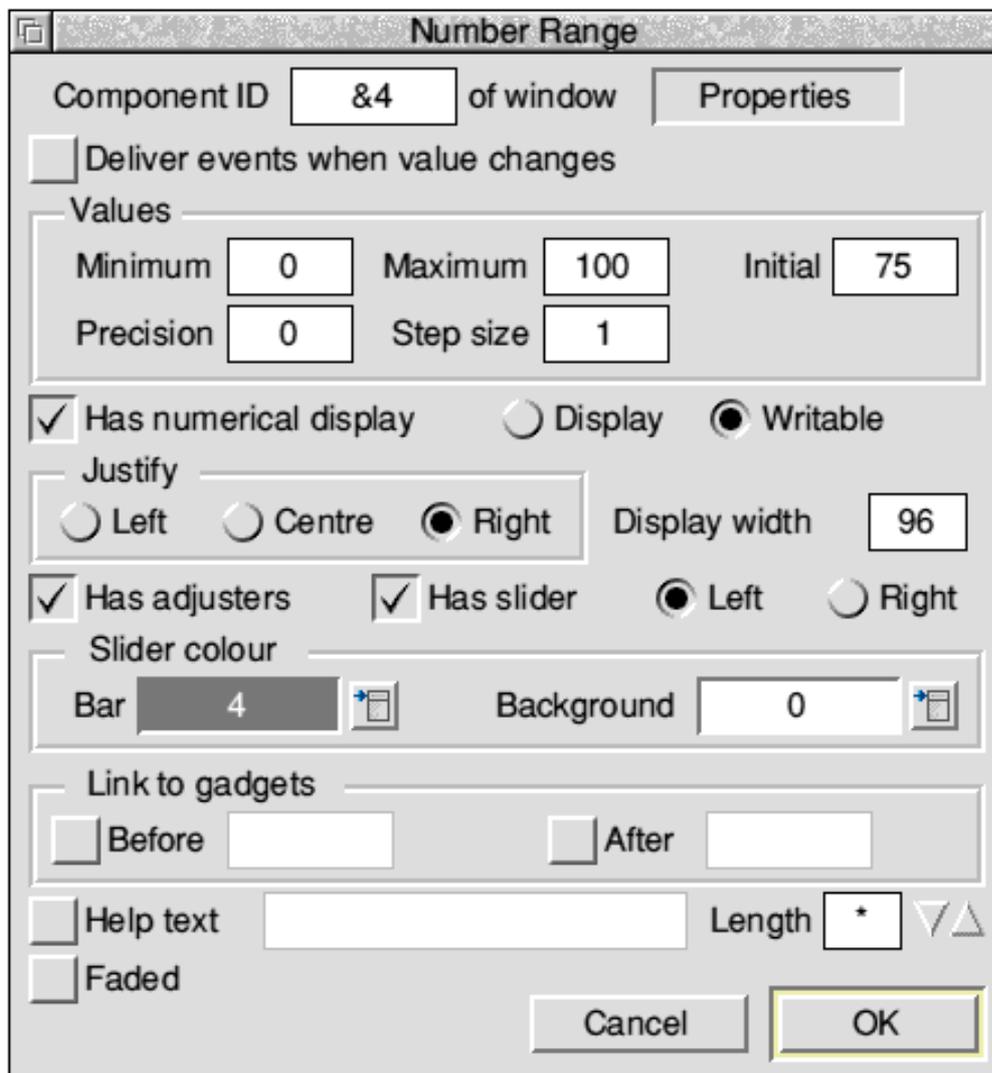
There are limitations to what you can do with the Toolbox; it is very much geared towards producing Style Guide compliant applications. For example, there is no support for writable menu entries or panes within windows. There are also some very restricting limitations such as the standard Program info boxes only supporting a limited range of licence types which doesn't include Freeware. Of course, it is still possible to get around that by designing your own Program info box.

“

The Toolbox provides a very powerful and significant improvement to Acorn's software development environment...

”

In addition, some of the facilities provided by RISCOS_Lib such as flex memory management are not provided by the toolbox, leaving a gap that is yet to be filled. However,



Don't let your own windows get this complicated!

despite a few limitations, the Toolbox provides a very powerful and significant improvement to Acorn's software development environment. It should make the production of Wimp applications faster and easier. The screen shots illustrating this article show how easy it is to develop a user interface without writing any code.

The CFront based C++ compiler has some limitations, for example a lack of support for exceptions, but it is a welcome addition to the development suite. Hopefully it will be replaced by a full C++ compiler with exception support before too long.

Priced at £249.95 inc VAT, this product is really only aimed at the serious software



Ever struggled to implement menus in your applications? The Toolbox makes it easy.

developer. Existing owners of Desktop C and/or Desktop Assembler can get a £50 discount off this price, and members of the *Clan Acorn* enthusiast scheme can obtain a further 10% discount. For your money you get a C compiler, a C++ compiler, an assembler, a selection of development tools

(much the same as provided with Desktop C & Assembler but now including ResEd and ResTest) and most importantly, the right to distribute the Toolbox modules with any software you write.

If you can make use of all the items supplied C / C++ certainly represents very good value for money although I would like to see a cut down version including ResEd and ResTest made available along with the rights to distribute the Toolbox modules for those who would like to use the Toolbox facilities from BASIC.

Mark D Smith

Acorn C/C++ is available now from Acorn dealers, product code SKB78. To qualify for the upgrade price you will need the original disc 1 from Desktop C or Desktop Assembler.



Pocket Book Corner

Toby Smith gets off Pocket Book games for long enough to write another letter from wherever he happens to be at the time!

Pocket Books in Education

Pocket Book Corner has received a copy of a recent report done by the Open University into the use of Pocket Books in an educational environment. Students were loaned a Pocket Book for several days. Questionnaires were used to record before-
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and after-opinions. Despite disappointing returns [*of questionnaires or Pocket Books? Ed*], a few of the findings are nice to see:

93% of users said they had enjoyed using their Pocket Book and most felt they had gained from the experience.

Attitudes to computers in general

Attitudes	Before	After
Easy to use	62%	87%
Hard to use	22%	7.5%
Essential	18%	28%

The schools and teachers also responded positively, reporting good motivation, pride of personal possession, robustness of software (anyone out there ever seen a Pocket Book crash? No. Neither have I!) and easing of pressure on IT rooms. Somehow short battery life got mentioned, but I fail to believe this is true as an average set of batteries lasts me a good 2 months and my machine is in almost constant use.

The study is to be continued over a longer time period and in more depth. Details will appear here as they arrive!

PD Software

Interest has been expressed in setting up a Pocket Book compatible wing of the Club's PD archive. A large selection of Pocket Book compatible software exists in the Public Domain or shareware arena, some of which is very useful. I've got a large selection loaded on my machine, and most of it is good quality. Votes to the normal addresses please.

Links and machines

Results of a recent survey of Psion 3 and

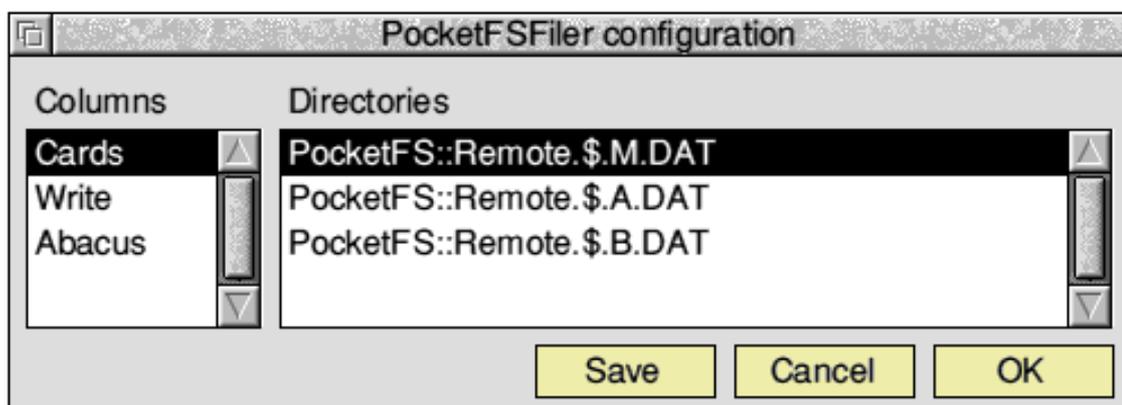
Pocket Book users showed that the Acorn A-Link is the most versatile of the 3 links available, and with suitable software will link to PCs and (allegedly) Amigas too, which the PC link will not. Guess what!? It's cheaper too! Yet another reason for Pocket Books over Psions! [*Toby is a regular reader of the Usenet Comp.sys.psion newsgroup where some people do not understand that the Pocket Book II is superior to the Psion S3a*].

Additions to the Psion Series 3a range

Psion recently announced a couple of new additions to its range, models of the Series 3a computer equipped with 1MB and 2MB RAM compared with the previous maximum of 512K RAM. Learning from the success of the Pocket Book II, Psion is bundling a spell-checker and thesaurus with its own-badged machines for the first time along with a Patience game. It seems quite likely that Acorn will offer models of the Pocket Book II with the increased RAM although no definite information is yet available. The new Psion models are priced at £339.95 inc VAT for the 1MB model and £399.95 for the 2MB model.

This column is, always has been, and always will be, written on the Pocket Book itself! Contact PBC with all your Pocket Book queries and comments at the Club FREEPOST address, or by electronic mail on pbc@nucleus.demon.co.uk

Toby Smith





which every aspect of this software has been thought through.

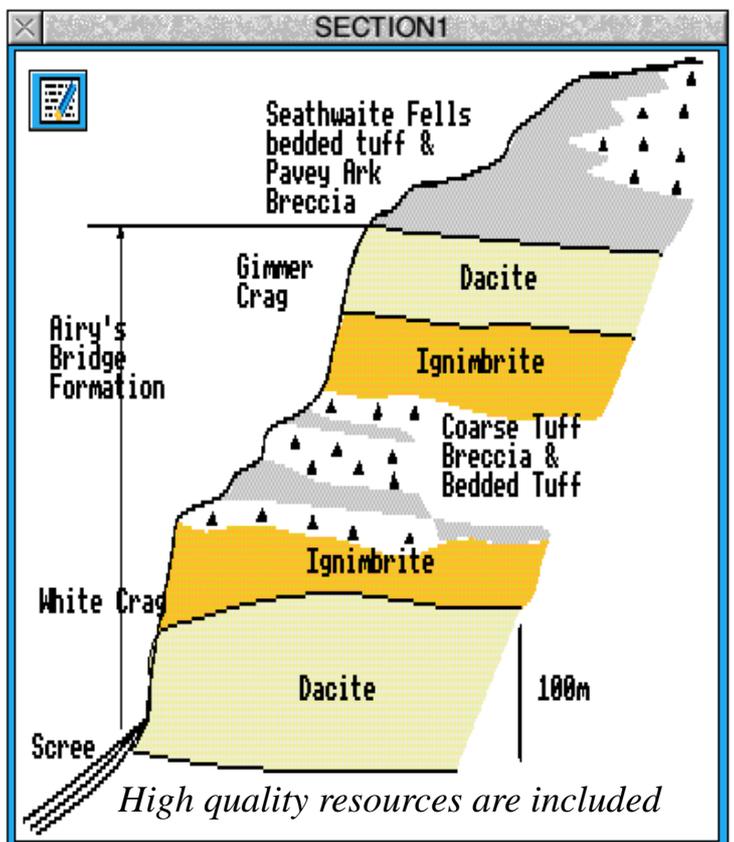
The CD contains eight large files which appear in the window when the ROM is accessed. They appear in alphabetical order, which may seem logical, but in my opinion a better order would be the following:

For those of you who have never explored the spectacular landscape of the Lake District, nor experienced the joys of tackling a long walk, map in hand, the Langdale CD-ROM by Creative Curriculum Software may well be a substitute. This package consists of CD-ROM and an extensive disc based resource file containing photographs, Ordnance Survey (OS) maps, text, data, sound samples and diagrams. It is available in both Acorn and PC format. While the whole package is aimed at the educational market and Geographers in particular, it is such a varied compilation and such a flexible resource that it will appeal to a much wider audience.

The bland white box in which the material arrives is rather unimaginative, but both the disc and CD-ROM installed on our Risc PC without any problems, and all the applications worked perfectly first time. This is an important consideration for people like myself who panic at the first sign of an error message and is an indication of the care with

a route map through the package and introduces you to the icons used throughout the software. It includes maps and satellite and aerial photographs to introduce the four areas of study; river profile, flood risk, land forms and land use.

Langdale gives you



Guide is simply a list of the graphic and data resources on the CD. but is a useful place to begin, as the variety of information is an important aspect of the flexibility of the whole package.

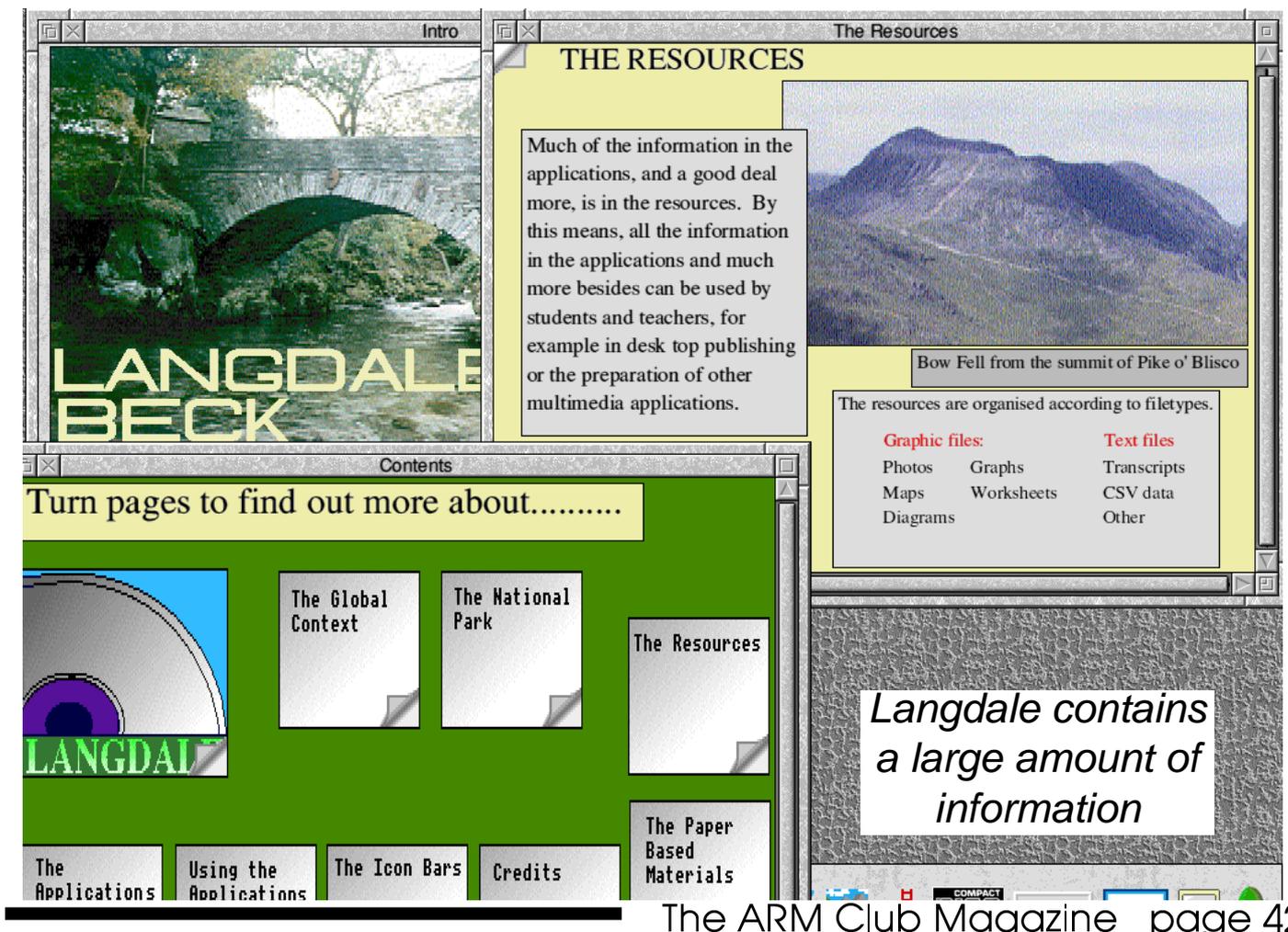
Geology gives the background information relating to the geological structure of the valley and is supported by good maps on the resource disc, which also can be easily printed out.

Three simulated walks along the valley are contained in the files **Blisco, Stickle and Bowfell**. These allow the student to develop map skills, and investigate landforms. Photographs are used skilfully to reinforce understanding of climatic and environmental features in a mountain area. The student can direct the walks by clicking on the direction they they wish to take on a series of scanned OS maps. Each section of an OS map contains

a series of ‘hot spots’, and by clicking on these, a series of icons are revealed. These allow access to information such as grid references, bearings, overlays, text, photographs and even sound samples. It is almost as good as being there yourself, but without the chapped fingers or blisters!

River, a particularly useful part of the application, allows exploration, both of the morphology of the river valley, and the flood risk within the drainage basin. Overlays on some of the photographs revealed at ‘hot spots’ are particularly helpful in identifying landforms, and the text commentary is also useful. Teachers will find this aspect of the CD invaluable, since the material, intended for GCSE, can be adapted for GCE A level or GNVQ students.

The last application, **Land Use** is also extremely well-resourced. Within it, you can



investigate the ways in which human beings have made use of Langdale, both for agriculture and tourism. The interaction between the physical environment, the needs of the local population and the many visitors is well documented with bus timetables, photographs and sound samples. With more and more examination modules on leisure and the impact of tourism in current GCSE, A Level and GNVQ schemes of work, most schools could make good use of this part of the resources.

Creative Curriculum Software are marketing this package in its entirety for £149 or as two separate packages: Stickle Project and

River Project at £49 each. The material contained both on the CD-ROM and the resource disk are much more flexible than the producers have suggested. They could be adapted easily for A Level and other sixth form students, as well as for those with special needs. This is an adaptable, user friendly resource and schools should consider carefully whether they can afford to be without it.

Hilary Reed

Hilary is Lecturer in Geography and also Leisure & Tourism in both a Tertiary College & Sixth Form College in Hampshire.

IFEL 8MB RAM Upgrade

Nick Evans performs surgery on his "beloved" A440/1

I know that there must be times when everyone has found that having 4MB of memory just isn't enough. I often find that the message "Application needs at least xxxK to start up" appears at the most annoying times. It may be whilst having a few applications loaded up when adding to the PD Library or when I'm using Impression along with some of the OLE applications which may be needed. Using a flatbed scanner, which has the ability to produce enormous files when used at the higher resolutions, produced "Memory full" messages so many times that I started to have my activities seriously curtailed. Then along came the 1200 dpi laser printer from Calligraph and a memory upgrade became essential.

I picked on the IFEL 4 to 8MB upgrade because I had been impressed with their service many years ago when I upgraded a

multitude of the university's A300s from 1 to 4MB. The upgrades have proved totally reliable and the speed with which they were put in (over a one night stay in Plymouth) was very much appreciated. I have found that whilst IFEL may not always be the first on the market with upgrades of one sort or another, when they are advertised, the products are generally ready in sufficient quantities to meet demand and are both well made and reliable. So saying I phoned up IFEL to order the upgrade, sent off my cheque for £292.00 and by return of post a package arrived on my doorstep. This contained two small boards joined together with about 10 inches of 0.025 inch ribbon cable, being a little over 1 inch wide. Also included was a small wire, more about which later, and some A4 sheets of paper. One of the boards has two MEMC1a chips on it, this is because each chip can only address 4MB of memory. Since I didn't want to do any

expensive damage to my beloved A400/1 I changed the habit of a lifetime and read that what had been writ. I am very glad that I did. The first leaflet of 4 A4 sheets discussed the philosophy and technical aspects of the 4 to 8 MB upgrade and, in view of the included price list and ordering information is probably sent out to prospective buyers or other interested parties. The second leaflet consisted of 3 A4 separate sheets with the fitting instructions. These I found to be totally comprehensible and comprehensive, covering both the A300 and A400 series with, or without, RISC OS 2 and an ARM3 upgrade in any combination. It does appear as though some early ARM3 upgrades physically encroach on the MEMC chip's space and so will not allow the new board with two MEMC1a chips on it to be inserted. The only way round this is to replace the ARM3 upgrade itself.

Another problem that owners of A300 is that some 1MB to 4MB upgrades are unsuitable for upgrading to 8 MB, which is needed before the IFEL 4 to 8MB expansion board is fitted. The 300 series RAM cards known to be unsuitable for upgrading to 8MB are Protokote, CJE Micro's, Watford Electronics, RISC User and early Atomwide/Avie types along with, interestingly, IFEL boards.

The IFEL 8MB expansion board works with some "colour cards" and VIDC enhancers, but again this is due to space rather than technical problems.

So, having read the instructions, I disconnected the computer from the mains and all its peripherals, removed the lid and the podules inside the machine along with the backplane, which I didn't disconnect from the power cables, but just turned to one side

once it was clear of the main circuit board. Out came the hard and floppy drives and their respective ribbon cables.

The decks having been cleared, I removed the MEMC from its socket using a chip extractor which I had bought some years earlier for the magnificent sum of £5.00. If you don't have one of these then you can prise out the chip using a couple of very small screwdrivers placed at opposing corners of the MEMC (this may cause the socket to fracture if you aren't extremely careful) or IFEL will supply a chip extractor for a small sum. The MEMC board is then inserted into the socket. Exactly the same procedure is undertaken to remove the VIDC chip and insert the memory card (which is the other board) into this socket. The VIDC chip is then placed into the socket on the new memory board.

There is one other thing that may need to be done, which is a minor board modification whereby you cut a pin from an IC chip which is soldered to the motherboard and solder a fine wire from this pin to another IC about 3 inches away. This is the wire that was included in the pack. The idea of this is that the 24MHz clock which drives the machine does not appear to give a clean signal which can prevent both 8MB and colour card upgrades from working satisfactorily. This small modification improves the quality of the signal produced by the clock and it is beneficial even if the 8MB upgrade is not fitted or if it happens to be removed at a later date. The modification is not needed on A300 machines.

Since all had gone so well, luck obviously being on my side, and the whole business had only taken 15 minutes, I decided to

chance my luck further and not make that small alteration. (The other reason was that I did not possess wire cutters fine enough to cut the leg off the IC chip which was soldered to the board. So everything went back and I plugged the machine in and switched on.

Eureka! (my usual exclamation as well as an advert for The ARM Club magazine) the computer performed its self-test routine and up came the screen showing 8MB of memory. It all worked faultlessly.

After a couple of days, however, I noticed that the computer would occasionally fail its initialisation routine when first switched on. It would fail to get as far as recognising the floppy drive and just hang up with a blank screen. The problem seemed to be easily solved by switching the computer off and then switching it back on again and it would then continue to work without any further problem.

After a few days of this, however, the failure to initialise became more pronounced, especially when it was cold (I prefer to have the central heating turned off in my 'study') such that I would have to leave the computer switched on but 'hung up' for up to ten minutes before I got a positive response to switching it on and off. This became a little disconcerting and so I decided that I would modify the clock circuit as suggested in the IFEL instructions. A quick trip to Tandy's found me the proud possessor of a pair of Nippy wire cutters and a hole in my pocket big enough to fit £3.99 into. Apart came the machine again (although I did not need to take out the drives or the backplane the modules had to be removed), the chip leg was cut and the wire soldered in place. Twenty minutes later the machine was plugged in,

wound up and set into action. There were no problems this time and there have been none in the three months since. The upgrade has performed faultlessly and the extra memory has been much appreciated. Scanning is dream and printing out on my Calligraph laser printer has been easy but not problem free as you will read at some point.

I think that many people would find soldering the wire difficult, but cutting the IC chip leg is even more so, in fact I cut the leg a little short which made soldering the wire even more awkward than it otherwise should have been. My advice is that if you are not happy to do some fine work then do not attempt the upgrade yourself. It was certainly at the limits of my (failing?) eyesight but has made me buy a magnifying lens to carry out this sort of thing.

If you are lucky and your machine is one of those which do not need this modification then I can assure you that fitting this board is extremely easy. I would suggest that you do as I did and defer the modification to the clock circuit until you have found that it is necessary. That aside, having 8MB of memory has extended the life of my beloved A440/1 and I can wholeheartedly recommend the upgrade.

Nick Evans

IFEL Limited can be contacted at 34 Culver Road, Saltash, Cornwall PL12 4DR. Tel 01752 847286. Fax 01752 840029.

IFEL produces a very interesting set of information sheets on its products as well as an occasional newsletter, for example explaining design decisions and warning of component shortages or changes.

FTP on the Internet

New Club Committee Member Tom Hughes explains how to use the File Transfer Protocol on the Internet

In recent months, more and more Acorn users have been finding their way onto the Internet, using the KA9Q software package and cheap internet service providers such as Demon Internet Services.

Unfortunately for those with little previous experience of the Internet, the documentation for the software has tended not to be as helpful as it might be, perhaps because the programmers all work on it in their spare time, and prefer to be adding new features than documenting new or existing ones.

Whilst getting basic email and Usenet news (the online discussion groups) flowing has become much simpler in the last six months, many new users remain baffled by the other services such as FTP and WWW which are available (and usually referred by acronyms, just to add to the confusion) on the net.

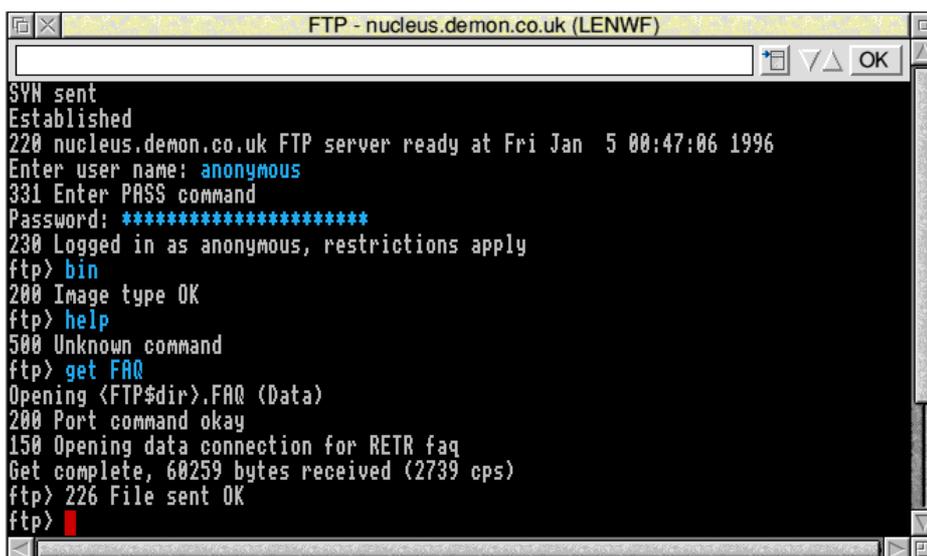
This article is intended to provide a simple introduction to one of these services, namely the File Transfer Protocol, more commonly

known as FTP. As the full name of FTP implies, this is the method commonly used to transfer files between two points on the Internet.

Particularly useful is the anonymous FTP service, where sites make files available to anybody who wants to get them, without needing to be explicitly allowed access to the machine on which they reside. This, for example is the normal way of distributing updates to the software used to access the net.

The first thing you need to know when you want to fetch a file by FTP is its location on the net. This consists of two components: the name of the computer on which it resides, and the full pathname of the file on that machine. As an examples consider the location of version 2.01 of KA9Q, which is available from the computer whose address is ftp.demon.co.uk, and for which the full pathname is:

`/pub/archimedes/tcpip201.spark.`



```
FTP - nucleus.demon.co.uk (LENWF)
SYN sent
Established
220 nucleus.demon.co.uk FTP server ready at Fri Jan 5 00:47:06 1996
Enter user name: anonymous
331 Enter PASS command
Password: *****
230 Logged in as anonymous, restrictions apply
ftp> bin
200 Image type OK
ftp> help
500 Unknown command
ftp> get FAQ
Opening <FTP$dir>.FAQ (Data)
200 Port command okay
150 Opening data connection for RETR faq
Get complete, 60259 bytes received (2739 cps)
ftp> 226 File sent OK
ftp>
```

These file 'addresses' will often be given in the form of a Uniform Resource Locator (commonly known as a URL) which, for the example above, would be:

`ftp://ftp.demon.co.uk/pub/archimedes/tcpip201.spark`

This specifies that the file is called `/pub/archimedes/tcpip201.spark`, and is to be fetched from `ftp.demon.co.uk` using the FTP protocol.

FTP is not the most user-friendly of protocols in existence...

To fetch this file, you first connect to your service provider, and start KA9Q, and which point you become a part of the Internet. The next step is to initiate an FTP connection to ftp.demon.co.uk, which you can do by entering the following command in the main window of KA9Q, at the 'net>' prompt:

```
ftp ftp.demon.co.uk
```

A new window should now appear on the screen, containing the login banner for the Demon FTP server. At the 'login:' prompt, you enter the special username 'anonymous', which allows you to access the server anonymously. You will then be prompted for a password, for which you should enter your email address. For example, I would enter 'tom@compton.demon.co.uk' at this stage.

You are now connected to the computer which holds the file, and should see the 'ftp>' prompt. At this stage a number of commands are available to allow you to discover what files are available for download, and to fetch the ones you require. In particular, the command 'dir' will give a listing of files in the current directory, and 'cd <directory>' will allow you to change directory.

To see what Archimedes files are available on the Demon FTP server that you have just connected to, you could type 'cd /pub/archimedes' to change to the Archimedes directory, followed by 'dir' to see a listing of those that are available (some of the files you will see are actually subdirectories).

Before you actually fetch any files, you will need to be aware that FTP has two main modes for transferring data. The first of these is ASCII mode, which can only be used for transferring text files, and which ensures that

any necessary translation of the file is done to make it readable on your system. The other is binary mode, and this must be used for all programs and archives, otherwise the file will be corrupted.

As FTP starts in ASCII mode, you first need to change to binary mode by typing 'binary' at the 'ftp>' prompt. You may also want to enter the command 'hash 1', which ensures that you are given progress messages during the time taken for the file to be downloaded to your machine.

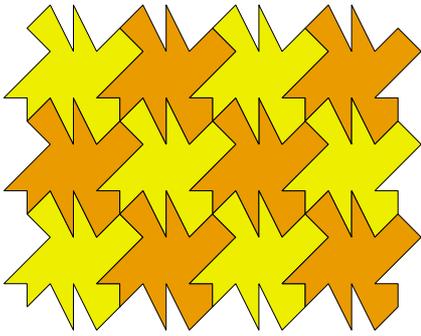
To actually fetch the file, you use the command 'get <filename>', so in the case of the example file, you would type 'get tcpip201.spark', assuming that you had already changed directory as described above.

You should now see a progress message that counts up the number of bytes received so far, along with the percentage of the file received. Once the transfer has been completed, you can type 'quit' to disconnect from the FTP server.

Once you have done all this, and have finished your Internet session by quitting Ka9q, you should find that the 'Downloads' directory inside the !TCPIPUser application contains the file(s) that you fetched from the FTP server. These will typically be archives that can be decompressed with one of the common archiving programs such as Spark, SparkFS or ArcFS.

Hopefully this article will have helped to explain one of the many useful services available on the Internet to those of you who are new to these things. Happy FTPing.

Tom Hughes



Tessellation

Revisited

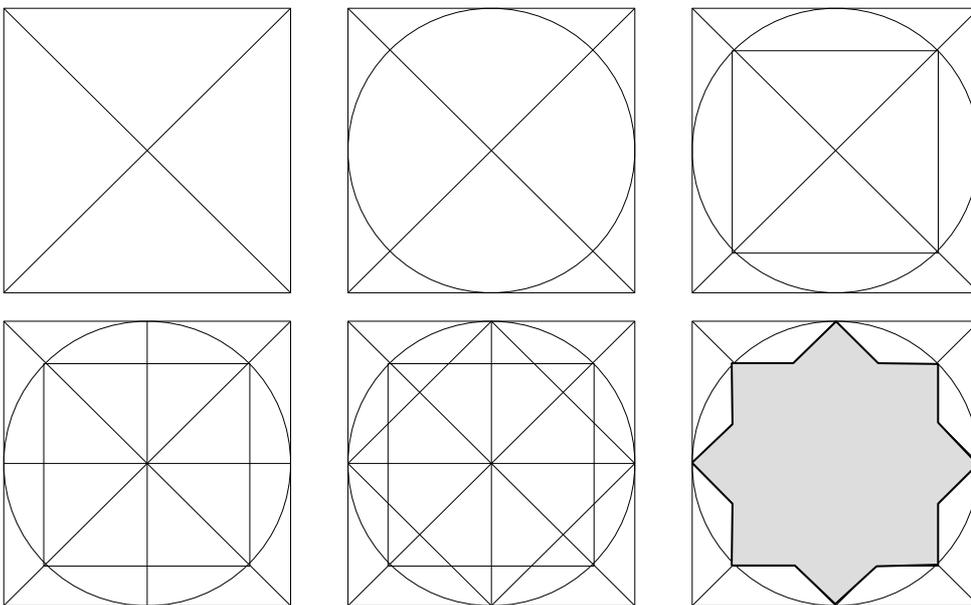
Kate Smith explores this subject further

Readers may remember an article by Geoff Stilwell in issue 11 [Spring 1994] where he described a method of using !Draw to create tessellating patterns.

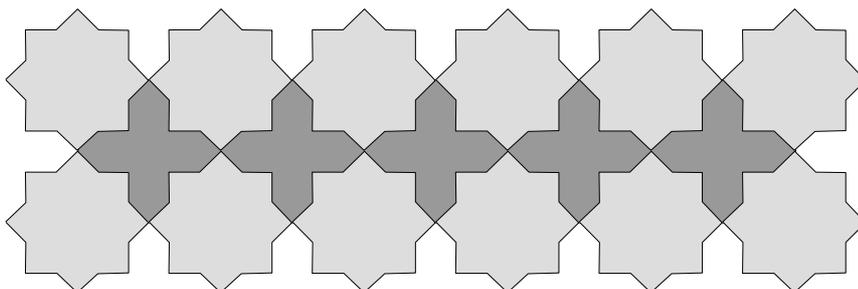
immediately saw the possibilities of using !Draw in this way, and being artistically challenged, I felt I could cope with patterns which behave in an ordered and mathematical way.

I teach at a secondary school where we are lucky enough to have had two new computer rooms equipped with 18 Risc PCs this school year. Last summer Jan Robbins, our textile screen printing expert and Head of Art asked if we in the computer department could help the year 7 pupils to practice repeat patterns and tessellation with a graphics package. I

I followed Geoff's instructions for drawing a shape based on a square, with left and right sides copied and therefore identical, and top and bottom sides likewise, then I found that drawing over the shape with a continuous line was a good way of creating an outline that could be filled with colour. Using the



snap to grid option helped to place the lines exactly and by using a thicker or coloured line, it was possible to see the effect when it was drawn. The fun part was choosing colours from the choice offered by the Risc PC, so much more scope than previously with !Draw, and then copying the shapes in two or three colours and fitting together the shapes to make the pattern.

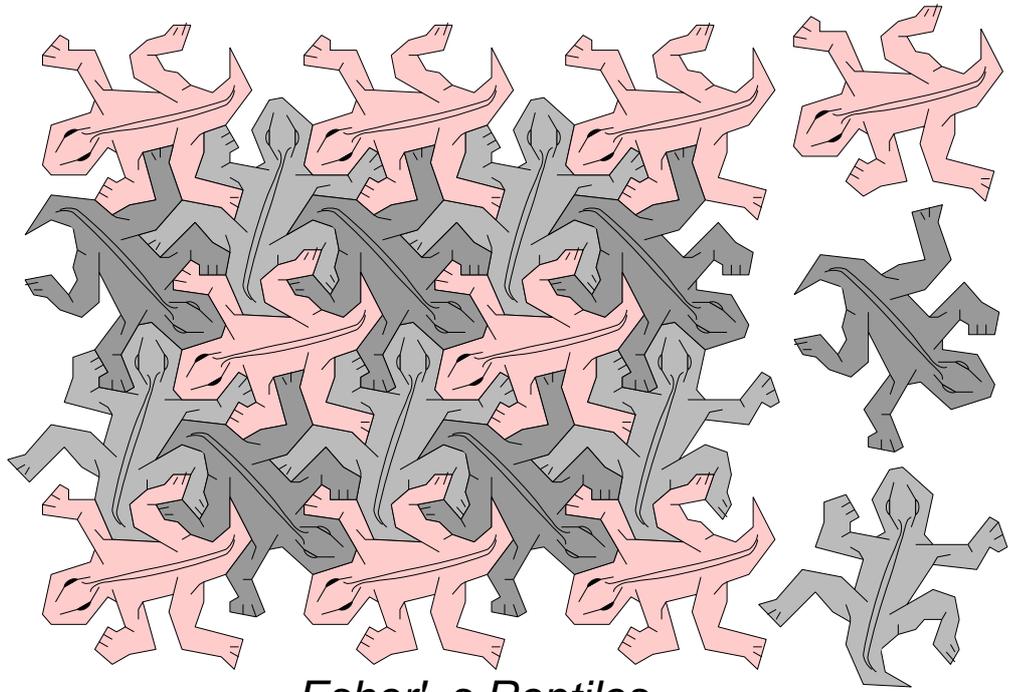


The patterns develop in a logical way

I read an article in Acorn Computing March 1994 by Jim Paterson, about Maurits C Escher, the Dutch graphic artist famous for his puzzling

pictures of impossible objects and strange perspectives.

Apparently Escher was fascinated by the concept of dividing up an area into a set of tiles or shapes and was inspired by Islamic designs. This led me to a book on Islamic pattern construction from which I adapted the following idea for my computer graphics lesson.

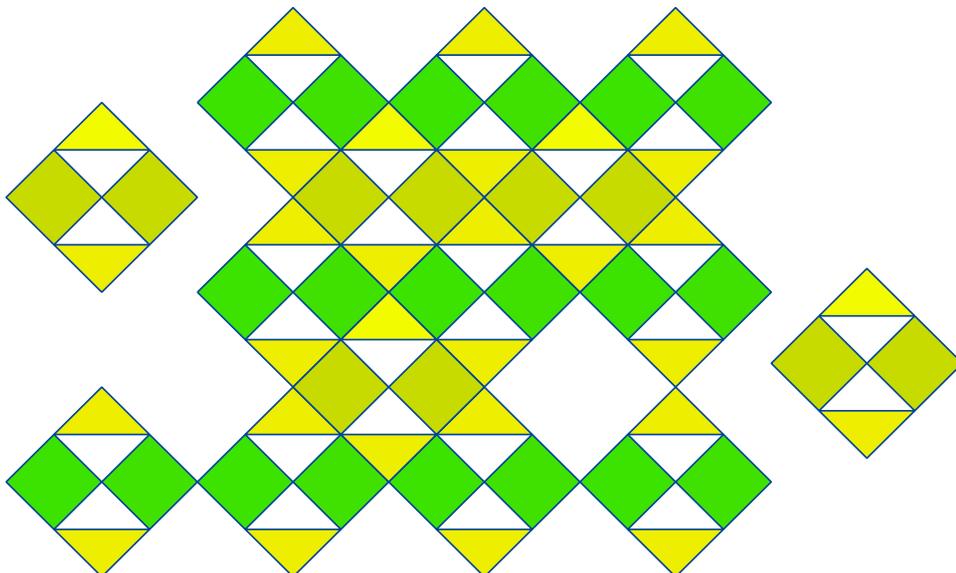
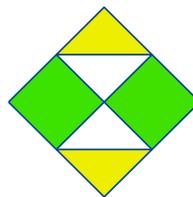
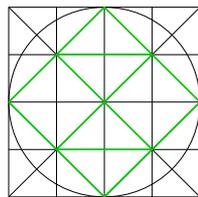
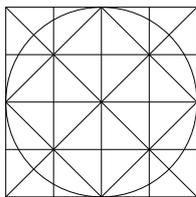


Escher's Reptiles

The repeat pattern units at the basis of Islamic geometric patterns can be constructed so easily using !Draw. Begin by drawing a square, then draw straight lines to dissect the square diagonally.

Next draw a circle that fits inside the square,

Stages in Creating a Tessellated Pattern



touching the sides. Join the points where the circle meets the diagonals to make a smaller square within the circle. In a similar fashion, draw vertical and horizontal lines to divide the outer square equally, creating four more points on the circle's circumference which can be joined to create another square. This is

the template from which a design unit can be derived and then

repeated to create a pattern. There are possibilities for a link with mathematics in the construction of regular polygons by division of circles, though this is not essential. Creating the shape is done by drawing round a selection of the lines in the template. Filling and repeating this shape onto a coloured background shows that the spaces in between form a pattern of their own.

Kate Smith



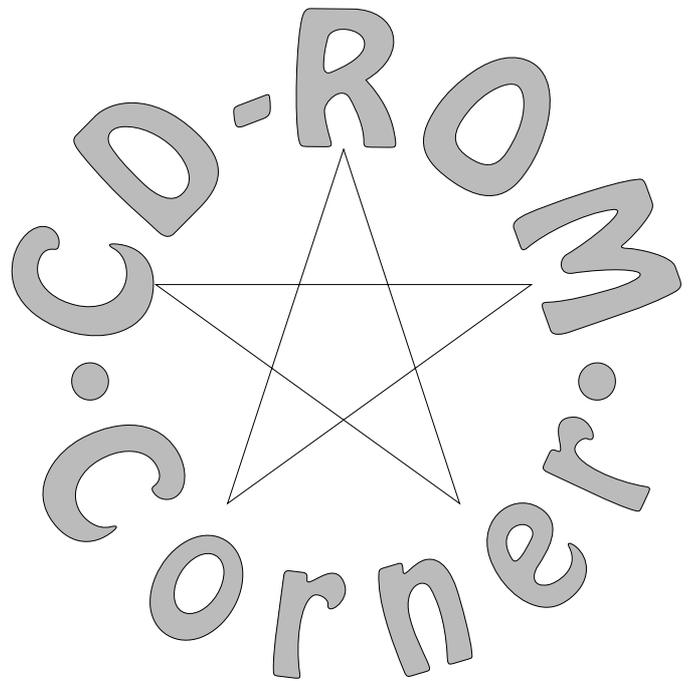
A couple of new CD-ROMs tested by Nick ' PD Librarian' Evans...

Over the past few months another couple of CD-ROMS containing PD software have been released. The first one that came across my doorstep was the PDCD-1 Issue 2. This is an updated version of PDCD-1 as produced by Datafile PD Library.

This CD was reviewed in Eureka issue 13 and now comes with a printed 58 page booklet describing the CD-ROM contents. The 4 pictures of a bare-breasted woman have now disappeared and much new material has been added. There is now a section for the Pocket Book containing over 330 applications contained in numbered directories — but why is directory 005 missing? — and a section for the Risc PC containing *MakeModes* written by Acorn's Dean Murphy and a couple of other applications. Also included is a Red Dwarf section which was acquired in the Datafile takeover of the GemPD Library last year.

The clipart section has been enlarged, as has most other sections. Some of the applications on the first disc are now well out of date with newer versions having appeared between the different issues of PDCD-1, a pity they could not have been updated on the disc. DrawPlus version 1.5 is also present along with the very much newer version 2.24.

I see that FastWipe and FastMove which are copyrighted RISC User programs from old magazines are still present. FYEO2 is present at least three times on the disc as are some other applications such as AWViewer but due to the much greater volume of material present I do not feel that this is significant.



If the PDCD-1 disc was good value before then I have to say that it is even better value now, although as I said a small number of the applications are well out of date.

The CD-Circle will update any ARM Club members CD-ROM to this later version - all you have to do is to send your original PDCD-1 disc back to CD Circle along with a cheque for £10.00. The normal price for the CD-ROM is about £25.00.

The CD-Circle, which produced this CD-ROM, is a CD User Group that has formed with the intention of expanding the number of CD-ROMs available to the Acorn market. To do this they have produced a couple of software programs which read the various codes from a suitable PC CD-ROM allowing them to be run on an Acorn machine without the need for a PC card and / or emulator. They produce a bimonthly catalogue disc available by subscription from them containing an up-to-date list of CD-ROMs available. The address of CD-Circle is PO Box 332 Bristol, BS99 7XL.

The other CD-ROM that I have seen is the
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ClipArt disc from APDL. This disc contains over 5440 images that have been termed clipart. The files occupy over 500MB on the CD-ROM, but only 183MB when compressed down using CFS. They are divided into 3 sections:

COLOUR containing 583 sprites and being 162MB long or 56MB when compressed (an average of 280K per sprite).

DTP containing over 6200 ArtWorks files (88 files occupying 6MB or 2.5MB compressed, drawfiles and sprites and being 312MB long or 85MB when compressed).

Earthmap — being 15MB long or 10MB when compressed.

The files are extremely well organised into almost every conceivable category with different directories for draw and sprite files of the same type.

The quality of these files is extremely variable, as is always the case with PD clipart

and the majority appear to have been ported over from the PC or Mac with Trace, or something similar, being used to convert them where necessary.

There is a section of Shareware clipart most of which appears to be of no better quality than the overt PD stuff.

I must say that I found a clipart file that I needed to use in a document within 30 minutes and have already found some of the files very useful. In fact I cannot believe that anyone would not find this disc a useful addition to their collection. A definite must especially at about £30.00. The advantage of clipart is that it will always be useful to have and doesn't go out of date.

Nick Evans, PD Librarian

APDL exists at 39 Knighton Park Road, Sydenham, London SE26 5RN.



Electronic Mail

Due to the increasing popularity of electronic mail the Club is in the process of expanding its support for electronic correspondents.

Every member of the Club Committee can now be contacted via Internet electronic mail by addressing messages to:

<first_name>@nucleus.demon.co.uk

For example, geoff@nucleus.demon.co.uk can be used to contact the Club Secretary Geoff Stilwell. If your message is intended for the Club rather than any particular individual, various electronic mail addresses

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are available for general use:

clubinfo@nucleus.demon.co.uk
for general enquiries about the Club.

editorial@nucleus.demon.co.uk
for matters relating to Eureka magazine.

support@nucleus.demon.co.uk
for technical enquiries.

The Club also has its own World Wide Web (WWW) pages on the Internet at the address:

<http://http1.brunel.ac.uk:8080/~cs92adf>

Betsi Review

Susan Bancroft tries out 4Mation's new release

Betsi is a historical adventure for the 7's to 11's, set in England at the end of the Tudor period. This is the first historical program produced by 4MATION, and is written

characters will reveal a written dialogue. Some of the spoken language may seem unfamiliar to children, with use of old fashioned phrases such as "thee" and "thou".

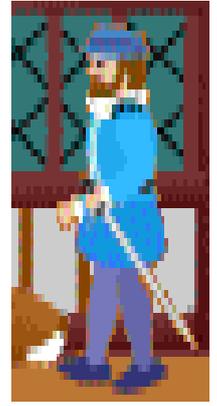
However, the player is able to control the speed of the text change, and therefore can linger on any particular section.

Betsi can be enjoyed in several levels. There is the historical gathering of facts, with a real sense of what it must have been like to live in those times. The pack also includes 10 work sheets, each with 20 questions on 10 topics covering: food and drink, work and play, law and order, health, homes, and the theatre. This enables learners to go back through the program and really assimilate all the written information. The historical accuracy has been affirmed in a recent

by Mike Matson with artwork by Sue Edwards. Matson's philosophy about teaching children history is that they "shouldn't need to be *taught* the subject but should be provided with opportunities where they will *learn* history.. As stepping back in time is not yet an option, we can do the next best thing and provide children with a simulated visit to an historical environment".

We are drawn back to Tudor times through the wanderings of Betsi, our heroine. She is an affectionate dog in search of a home, which is an ideal character and situation to capture a child's interest. In the first scene, she is driven out of the Royal Kennels by a Beefeater Guard, because she is not fierce enough to hunt. We follow her through the streets, buildings and riverside of 16th century London.

There are more than 30 screens to explore and 10,000 words of text to read. Clicking on items will reveal facts and figures, or it may start an animated sequence or music. Clicking on



Betsi the dog is searching for a home in 16th century London



A group of vagabonds have set up an unofficial toll post in the ruined monastery. No-one is allowed to pass without paying a toll.

It wasn't safe to walk the streets in 16th century London

exhibition at the London Barbican. Betsi contains a section on the Globe Theatre and was chosen for use at the Interactive Shakespeare Show.

There are also two stories within the program to follow, with clues to solve. Betsi has to find a home. She cannot live with Peter Sparrow because he is too poor, or the builder's family as he thinks that dogs are carriers of the plague. Tom, the cabin boy's family will welcome her — but how to reach them? An exit by the monastery is blocked by a group of vagabonds, who have set up an unofficial toll booth. She must find something to barter with, in order to pass through safely.



Then we have the story of Lord Radstock's lost son. A large reward is offered

for any news of his whereabouts. Guess who finds him in a barn, wounded after a hunt? Another game to play is to find 5 bones hidden in certain locations. These can be collected by clicking on them, or in two instances earned by performing helpful tasks — chasing a robber and lapping up spilt beer from off the pub floor.

Betsi is a historical adventure that I am

sure will prove popular with teachers and pupils alike. Priced at £34.50 + VAT for a single user, this should not prove too expensive for a parent to buy for home use. A site licence is a further £34.50 +VAT and would be a worthwhile investment for Junior Schools.

History was never so much fun. To prove that there is nothing new under the sun, the Adult's Reference Guide opens with some thoughts about the value and effectiveness of teaching children through play. The date? 1594... Exploring history in the medium of a computer adventure game, does not here undermine the serious study of the subject. It is more likely to be remembered by the learner, and may well inspire them to turn to the reference book.

Susan Bancroft

4Mation can be contacted at 14 Castle Park Road, Barnstaple, Devon, EX32 8PA. Tel 01271 25353.

THE PD SCENE

The latest version of the PD catalogue seems to create far fewer problems now. The small bug in displaying the Games list has been corrected.

You should also note that a Pocket Book section has been added, by popular demand. I don't have one of these machines but have placed the programs on 720K PC formatted discs due to advice given by a few PB enthusiasts.

You should be aware the the INTERNET starter pack is on Comms discs 9-11.

Don't forget that we have, in the past, been able to offer an upgrade service for those of you who have found that the version number of your favourite PD program has been superseded and this has now been extended to those discs which have significantly altered since you bought them. If the original PD disc is returned, along with stamps to the value of 50 pence for each disc, then I will replace this disc with the latest version. Please don't send cash as I have found that a lot of this goes astray in the postal system. Stamps will do and cheques/postal orders can be made out to "The ARM Club".

This month's magazine disc contains:

Some clipart from Club member Chris Jarman who is rapidly making a name for himself in Acorn circles as a producer of high quality art. These files have been converted into Draw from Artworks, and I can assure you that the originals are even better. There are also some examples from the APDL Clipart CD-ROM.

Nick Evans waffles on about the latest Eureka Disc

Director is a Desktop customiser program from Nick Craig-Wood. It allows you to customise your desktop by creating menus of useful commands and icons to which to attach the menus. Any number of menus or icons can be created and attached in any order to each other. It also allows an alternative and faster view onto files in the form of directory menus and allows these menus to be attached to other menus also. Other useful features include remembering the most recently used files, the ability to add key strokes into the keyboard buffer and the ability to produce directory menus over drive icons.

FracPaint is a Shareware program from Michiel van Schaik and is a multi-tasking RISC OS application to create images of fractal formulas. More than thousand formulae can be used and with each formula a large number of parameters can be changed to create an unlimited number of different images.

The *Articles* archive contains a text file of Acorn dealers and a very useful FAQ (frequently asked questions) about starting up with the Internet.

Lottery, by Paul Vigay, will analyse all the previous National Lottery numbers to give you some idea as to their likelihood of appearing.

SnowStorm is a very silly program which might not even quit the desktop properly.

Nick Evans

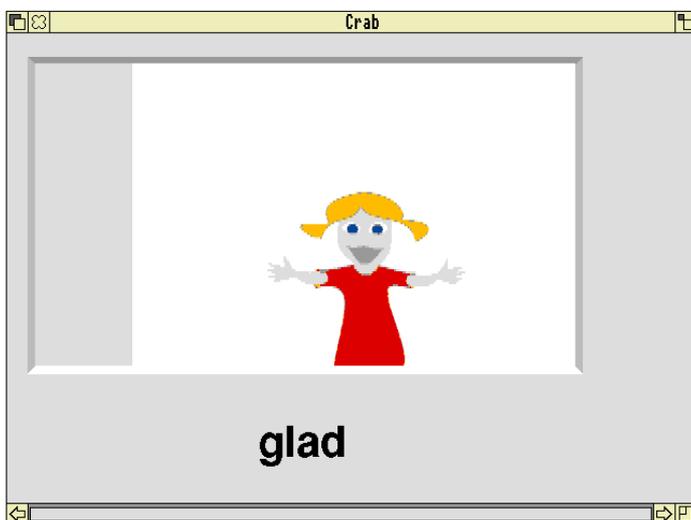
Play on Words

Adwoa Sowa looks at a new package for children learning English

My focus this time is a language program called 'Play On Words'. This program is designed to assist emergent readers to acquire the basics of reading without the tedious drilling in phonics thus enabling them to learn without finding the necessary repetition extremely boring. The series comprises three discs (the implication here is that there may be more in the pipeline).

The ABC disc

This teaches the simple sounds for all the letters of the alphabet. Once you access the program the letters of the alphabet are displayed on the screen and a child's voice tells you to click on a letter. A word beginning with that letter appears on the screen. A further click and 'Hey Presto!' an animation begins. On this particular disc there were three levels of difficulty; easy, medium and hard (easy being as described above). Medium begins in the same way as easy but then allows the user to use words that contain the chosen letter making it that little bit more thought provoking, while hard invites the user to type in the word to obtain the animation thus testing spelling.



The graphics are simple but effective

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Shoot

The second disc, focuses on specific sounds namely oo, ee, th, sh, and ch. Once you access the program these sounds are listed on one side of the screen. Click on any one of these sounds and a series of words containing these sounds is introduced each with its own animation. This program comes in two levels of difficulty easy and hard. Again hard invites the user to type in words to obtain the animations.



The preferences window is fairly standard

Crab

The final disc introduces initial blends namely bl, br, cl, dr, fl, gl, gr, pl, pr, cr, and fr. Again these sounds are listed down one side of the screen and the user is invited to click on a blend. This time the user is introduced to two words containing the sound, each with its own animation. The two levels of difficulty are as before.

As a class teacher I found this series invaluable. The children who used it were mainly those who were only just beginning



to learn English and as such had little or no knowledge whatsoever. They were able to repeat the sounds as many times as they required and seemed to thoroughly enjoy it. It was also very beneficial to me as it meant that they did not need my full attention all the time and I was able to help other children in the class with other things.

I was also very impressed with the animations. They were very colourful, imaginative and amusing. My only criticism is that the voices used were not clear and audible and that, for anyone learning a new

language, is a very important issue. However I do appreciate that the voices were actually as clear as they could be given that the computer can in some ways be limiting. All in all, I think that the program is very useful for any child who is just beginning to read in that it deals with the more repetitive aspects of learning to read.

Adwoa Sowa

Play On Words is available from Cordelia Jones, 1 The Crescent, Cromer, Norfolk NR27 9EX

Rosie & Jim

A package for young children reviewed by Geoff Stilwell

Harry is a 2½ year old boy my partner, Sylvie, minds during the week while his mum is at work. He's become quite obsessed with the children's Central Television puppet programme, Rosie & Jim. He sits at the dinner table singing the theme tune, driving everyone round the bend. So when Sherston Software offered me some review software at the BETT show I chose one of their Rosie & Jim Talking Activities.

Rosie & Jim are a couple of cheeky rag dolls who live on a longboat. There are two Talking Activity programs in the Rosie & Jim series, 'Jim gets The Sneezes' and 'Duck Loses His Quack', I am reviewing the latter. The story is that Duck starts making other strange noises instead of his usual Quack. Children have to match sounds to the correct animals until they find the duck's quack.



Each page of the story is a beautifully coloured screen. Children are led through the activity by large button icons they click on with the mouse pointer. Clicking on a set of lips reads the text on the page with the character's voices and clicking on an eye button amusingly animates the picture with sound. Clicking on the picture itself also sets off parts of the animation. It is also possible to playback the individual word sounds by clicking on them.

Harry absolutely adored it. He clicked on the Rosie & Jim logo countless times to play the tune and later clicked on all the 'wrong' animals first to hear the sounds. He was fascinated by the words and their sounds and kept clicking to try and find his favourite words, 'duck' and 'quack'.

I believe the educational content of the program is self



Simon Burrows is a closet fan of Rosie & Jim!

program because the children were able to work independently at the computer. They were amused by the graphics, amazed by the sound and really enjoyed using the program. The program was tried briefly in the reception classes where, once they'd been shown what the program could do, the children were again enjoying all the program's features.

evident so I took it into two year 2 classes at my friendly primary school. Coincidentally both classes were involved in work on senses and felt that the program would fit in very closely with the work they would be doing on Sight and Sound. The two top-infant teachers would freely admit that they are not computer fans but after I'd showed them how the program worked they were confident that I could leave it for the children to investigate by themselves.

The first group of children started and soon had a crowd of children round the computer just dying to have a go. It is quite a noisy program although the volume can be turned down using the options dialogue box from the icon bar menu.

Both year 2 teachers really loved the



Hmm, isn't this scene a bit hot for young children?

The only criticism of the program that anyone had was that the program ran in a window on the desktop. Children had easy access and mischievous fingers often found ways of stopping the program running. Perhaps, considering the age of children the programs are aimed at, the program could have an option to take over the whole screen with a keypress code, that only the teacher knew, to return to the desktop, like in other Sherston packages.

The program is quite short and limited in the length of time it would be used in a class but something short and sweet is more appropriate for this age range anyway and at the price of £10 for each activity it seems excellent value.

Thanks to Arlene Maddock and Pam Haines at Colindale School in north west London for their valuable comments.

Geoff Stilwell

*Available from:
Sherston Software Ltd
Angel House, Sherston
MALMESBURY
Wilts. SN16 0LH
01666 840433*



COVER

The Spring Games Zone

The continuing flow of new games for the Archimedes and Risc PC never ceases to amaze me — given the supposed dominance of education as the destination for Acorn computers I am left wondering who plays all the games that are produced? It must be worthwhile for the publishers or they wouldn't keep on producing new games at great expense and effort. It's good that software piracy hasn't managed to wipe out the market (although it must still have a significant effect).

Our review of Simon the Sorcerer below is rather belated, however judging from comments of the three reviewers who have written about this game it is a *must buy*. Sadly converted games such as Simon the Sorcerer tend to have so much more polish than games designed and written natively for the Acorn market.

The Acorn User Spring Show in Harrogate will be the launch pad for another batch of new games, keep a close eye on the magazines, reviews & adverts if you can't make it along to the Show.

Please do keep writing in to us at the usual address:

- The Games Zone • FREEPOST ND6573 •
- London • N12 0BR •

Simon the Sorcerer

Very positive comments on this hit game from 3 people

After over a year's worth of hype and disappointing delays, Simon the Sorcerer finally made its way onto the RISC OS Games Scene in October last year. Was it worth the wait? I think so...

Unfortunately, I didn't get the time to finish a thorough review for the Christmas issue of Eureka, but I'm



glad I've had the extra time to play with it. Simon the Sorcerer is really quite large and deserved to be given a lot of attention.

Simon the Sorcerer is essentially a large, role-playing, fantasy-based graphic adventure game. As the manual states, you don't need lightning reflexes, an IQ of 175 or the courage of a great white bear; a sense of humour will help you enjoy the game more though...

The plot involves you playing the part of 12-year-old Simon, being thrust into a mediaeval world of Goblins, trolls, witches and wizards in an attempt to find and liberate the magician Calypso, who has been incarcerated by the evil. Sounds simple enough, doesn't it?



Getting the boring things over with.. The package arrived in a glossy, colourful cardboard-wrapped insert containing the program on nine 800K floppy discs, a 30-page instruction manual in various languages (reflecting its multi-format, non RISC OS origins), and a RISC OS specific installation note. There is no disc protection, though you are required to verify the positions of different object scattered around a 'compass', printed on each page of the manual (in photocopier-unfriendly colours). I found this quick to enter, and generally less obtrusive than other types of "look-in-the-book" based protection, for example, entering colours from a grid or words from the manual.

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The graphics are of superb quality

The manual itself is fairly well written, basically covering the actions of each of the icons, and so on. The manual also gives you a taster of the kind of humour you're going to find when playing the game..

Simon the Sorcerer was easily installed onto a hard disc using the installation program supplied, and, in addition, I found that compressing the application with SparkFS saved me a great deal of space with little reduction in loading speed. STS can be run from floppies if you're not using a Risc PC, but will involve quite a bit of disc swapping. Simon The Sorcerer runs from, and returns to the Desktop, leaving an icon on the icon bar which also provides you with the ability to select a VGA mode, thus avoiding the 'letterbox-effect' you might otherwise get. The VGA mode doesn't have enhanced game graphics, though I've heard future versions may support higher resolution graphics. In addition, a CD-ROM version of STS is planned, as is a Risc PC version taking advantage of the enhanced palette and graphics facilities of this machine.

Clicking on the iconbar icon brings you into



the game.. after the piracy check, you are given an introduction to the story behind your quest, which you can thankfully skip, then you're on your own...

You control Simon with the mouse. Essentially, this involves either clicking at the point on the screen where you want Simon to walk or climb to, or clicking on various *verb* icons on the lower third of the screen — this allows you to get Simon to examine things, pick things up and so on. Moving from location to location simply involves going to a door and opening it, or clicking on a path that leads into the distance, and so on. Usefully, a map facility has been provided allowing you to jump to locations you have previously discovered with ease, thus saving a lot of time finding your way back and forth.

The puzzles you meet up against vary in difficulty considerably and are “chained-together” most of the time. I won't give any specific examples here because I don't want to give anything away, but gameplay follows the tried-and-trusted ‘Mr. A requests object B, which, when given to Mr. A is eternally grateful and gives you object C, which character D is desperately searching for and won't let you into location E until he has it’ format... Interaction with each of the characters, and carefully concentrating on the animation sequences will provide you with the clues necessary to complete the game.

It is the character interaction which brought the most enjoyment for me... Simon's world is littered with python-esque humour, some of which really had me laughing, or groaning loudly at times. There are so many examples I could choose from, but I guess notable examples include the troll who decides to take industrial action as a result of being

unfairly treated (always being pushed off the bridge into the water by the goats), the responses given by the two female mercenaries at the local pub should you decide to try to chat them up and the lonely swampling who, when you visit him, forces you to eat his special birthday swamp stew until you're sick... Believe me, this game will make you smile.

The graphics are, quite simply, stunning. The locations are beautifully drawn, and there appears to be no deterioration in quality as you progress further into the game. Walking through the forest, for example, you see butterflies fluttering around, squirrels running up trees and even a bird of prey swooping for its kill...

Sound is treated similarly — most major locations have their own related piece of background music, though there aren't any spot-effects as such.

The attention to detail is amazing, and the animations were smooth and fluid on the wide range of Acorn machines on which I tested Simon the Sorcerer — though as stated in the installation note, running the game in VGA mode on ARM 2 systems did slow the game down significantly.

The real beauty of this game is that you can enjoy it in several different ways — you don't HAVE to complete it if you don't want to, or don't feel able to. It's fun to play without attempting to get anywhere — you can quite simply lose hours and hours just clicking the mouse and talking to characters, and enjoying the responses you get. It's just as much fun to watch other people playing and enjoying the game. Graphic arcade/adventure fans should find it to their taste,



and hardened text adventure followers won't be disappointed — there really are some devious puzzles in here! For those of you who get truly stuck, a hint book is available from GamesWare, priced at £7.95.

Improvements? Well, in honesty there's not much to improve.. the graphics are excellent, though a *real* VGA version would be very nice indeed.. Also, a proper desktop version would be extremely nice — I feel Simon the Sorcerer would be far more suited to the desktop than, say, Lemmings is. The idea of idly cantering through Simon's many locations whilst compiling a large project seems very tempting... Currently, although STS installs on the iconbar, clicking on this icon brings you into the game — the only way back to the desktop is to quit the game — you can't press F12, say, to temporarily return to the desktop. This is a shame.

In short, games of this quality are few and far between on the RISC OS platform — you only have to glance at the graphics briefly before coming to the conclusion that it's a conversion from the PC games world where games are developed over months or years by teams of programmers, musicians and

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graphic artists, instead of being designed and written over a period of 2 months by a student in his spare time. I'm not saying that fantastic attention to detail accounts for a great game, it's just that in this case it is the polish on an already good game that PC owners have come to take for granted.

The game is not a masterpiece of modern programming. Simon the

Sorcerer is an example of a very well designed, well finished off game. If you had any reservations about buying this then you need worry no more. One way or another, games of this quality are the shape of games to come on Acorn machines...

As a final note, Simon the Sorcerer II is about to be released on PC machines — I shall certainly be looking forward to it.

Written by Gareth S Long

In the past, I have never cared for computer fantasy games. My first dismal memory of them was *The Hobbit* on the Spectrum. I couldn't seem to solve the clues and once some progress was made, it was a case of one false move and it's back to the beginning again.. My opinion was that adventure games could serious damage your health, due to high blood pressure. And damage your computer, due to thumping the hardware in annoyance. All in all, they were just too frustrating for the bother.

Simon the Sorcerer came as a very pleasant surprise. It has long enjoyed success in other computer formats and now has been adapted

for the Acorn market. The game is stored on 9 discs, which gives some indication of the length of game play and the quality of the graphics included.

The opening animated sequence sets the scene. Our hero, Simon, is a plucky young lad with auburn hair — now who does that remind me of? On Simon's 12th birthday he discovers a dusty old book in the loft. With Chippy the dog, he dematerialises in a sorcerer's cottage in another time dimension. Calypso the sorcerer, sends him a letter, asking Simon to rescue him from the clutches of the evil Sordid.



Along the way, Simon meets various characters with various requests. Tasks can be completed by carefully looking at the background graphics and collecting objects in his hat. Simon's actions can easily be manipulated by clicking verbs on the ID bar — Walk To, Talk To, Give, Move, Look At, Use, Wear, Remove, Consume, Pick Up, Open and Close. While you are pondering your next move, Simon will pull out a walkman from his hat and tap his toe to the music. Objects can be given to their owner, who may in turn, give you something else to help you. Sometimes objects have parts missing or need to be put together with another item. Or they can help you access secret places — a pig will eat through a chocolate truffle door, for example..

This is not as easy as it sounds, because events do not unfold in a linear sequence. There is a lot of hopping back and forth from locations, aided by the magic map, of course. This can be used to jump instantly to the important points of the game once they have been discovered. You are able to save the level that you have reached.

There is much more fun to be found in Simon the Sorcerer than just solving a pattern of clues. The graphics are simply gorgeous — from the background scenery to the imaginative assortment of characters. Another big plus is the game's humour, although some may be offended by a few minor swear words. Quite often Simon will have more than one response for you to choose from, in a dialogue with other characters — just for a bit of a laugh! Who could resist a militant troll, refusing to be butted off the bridge by the Billy Goats Gruff? Or an emotionally challenged green swampling, trying to persuade Simon to partake of his vat of noxious stew?

We enjoyed playing this game as a family, particularly my 12 year old daughter, appropriately enough (see later). A small disappointment is that we only hear Calypso's voice at the end, after Sordid meets a sticky end. We do not meet Calypso as such.. Ah, well! We eagerly await the next instalment of Simon's adventures — which is already on Sarah's Christmas list!

Written by Susan Bancroft

I thoroughly enjoyed the game, all the way through. There were lots of puzzles to solve, which really got my brain going! Some things were harder than others to find, but the easier ones encouraged me to carry on.

We all helped each other to work out the clues and we got really excited when we got one right.

You have to be patient with the game and look very carefully for clues. It took me a whole day to find the tadpole right at the end — I kept being eaten by a frog and spat out into the mud, that really got my head but at least Simon is never killed! Only once did I get completely stuck so I asked my dad to get help from Arcade bulletin board; this was when Simon was trapped inside a dungeon with a druid on a rack. If any of you need a solution, you can always try asking on the

bulletin board. By the way, thank you Ray Bridock whoever you are...

This is the best computer game that I have ever played, and that includes games on the SNES and Sega. It was great fun to play with my friends. I hope there will be more adventure games like this for Acorn computers.

Written by Sarah Bancroft

Simon the Sorcerer costs £39.99 or less and is available from all good games suppliers.



Budget Games Corner

Two budget games, Oddball and Big Bang, reviewed by Andrew Clover

Ah, *budget* games. Takes me back to the good old days. You know, when full-price games were £9.95, budget games were £1.99 and MODE 2 graphics were impressive. Times have changed; the prices have changed with them and now we're paying £30 a time for the latest in digital gratification. Progress? *Pah!* (Still, at least the graphics have changed too.)

So it sounds like a top idea to release games with small prices, and two have just been released: **Oddball**, by Digital Psychosis, and **Big Bang**, by Psycore. The big question is, are they any good, or is the reduced cost nothing but an excuse to sell games that are completely bobbins? Let's open the small but perfectly formed boxes (Big Bang's is **tiny**, actually) and find out!

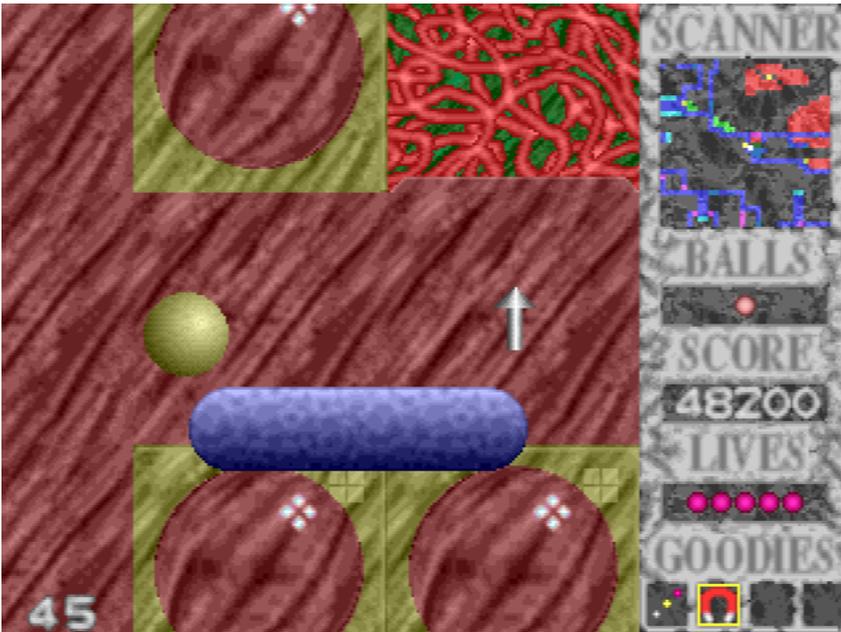
Oddball has a very original concept, and it's certainly **odd**. You control a long blue bat with the mouse, hitting bouncy yellow balls against destructible green bricks. This sounds like The ARM Club Magazine page 63

relatively pedestrian until I mention that the bat in question must be half a screen wide, the balls are sized in proportion, and the playing area on some levels stretches to hundreds of screenfuls. The level designs bear more resemblance to mazes than bat 'n' ball screens, with deadly void squares scattered everywhere around the map instead of at the bottom of the level, as is traditional. Add to this moving blocks, collectable goodies, raised platforms, stairs, and — on some levels — gravity, and you're in for a confusing time.

Oddball's graphics are simple, large and colourful. They're not brilliant (few Acorn games have ever seen a graphic artist, alas), but they're effective and they do look good, thanks to the judicious application of textures. The sound effects are OK, the music is all right but irritating after not very long. And there's plenty flashy effects such as the fades, and the wobbling backdrop. Oddball is well-presented, but it's the gameplay that



counts; Oddball's wacky design does actually work quite well.



Oddball: it's odd, and it's got lots of balls in it.

It's all good fun bashing away at the bricks for a while, but I found the levels became rather hard rather swiftly. By hard, I really mean maze-like — if you've played Digital Psychosis's previous game **Asylum**, you'll recognise the same tortuous level design. The magnet goodie, which makes the bat attract the ball(s), is essential: it's perhaps a bit easy to control the ball by using it constantly, but almost impossible to finish later levels without.

Still, the game can be saved at any point, and you'll need to get through all forty levels. Not to mention all the bonus levels, which are one of Oddball's best points — there are tons of hidden bonuses and bonus levels to find. So even if you can complete all the levels (which is not at all easy), you can go through again to find the bonuses. Then, there's three skill levels. I found anything other than "Beginner" quite impossible, though.

Sure, there are gripes, but Oddball is an interesting and fun-filled game. For the price (£8.95), you can't go wrong. It's also

available together with the company's other game, the platformer **Asylum**, for £14.95.

Definitely recommended.

Big Bang is not quite as ludicrously cheap as Oddball, but at £14.95 it's still but half the price of many of today's games. It's a platformer, and one of the large-graphics-fast-game breed that is perhaps under-represented on the Acorn: Zool is about the only other game in this category I can think of.

Big Bang is the first game we've seen from Psycore since **Top Banana**, sold by Hex back in 1992.

In graphic style the games are similar, though Big Bang looks a lot smarter. With the dithered raster-style bars in the background, and the polished main characters, it looks almost *professional*, something you cannot often accuse Acorn games of being. Having said that, more animation on the heroes and baddies is needed. The presentation of the title and menu screens are back down to Acorn games' usual standards too, sadly — heavy pixellation and the system font abound.

Interestingly, the graphics are stored as sprite files inside the application. They can be edited in **Paint** to give a whole new look to the game; indeed, the game suggests you do so. I don't see this catching on, however, as there is no way of creating new maps, unlike Top Banana where the level data was stored as sprites too (though nobody did edit them, because the format was not easily understood).

The gameplay consists of running around a wacky horizontally-and-vertically-scrolling environment of platforms, tubes, lifts, spikes
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Big Bang: it' s not all that big, and it doesn' t have all that many bangs in it.

and funny green stuff, whilst avoiding or killing miscellaneous nasty things and collecting teddy bears. (Yes, teddy bears. Big Bang's just weird, that's all.) If you touch a nasty thing when you have no teddies, you die, otherwise you lose all your teddies; baddies may be destroyed by jumping on top of them. Indeed, it is more than a little similar to *Sonic The Hedgehog*, but I think that's forgivable. Anyway, you can also throw the teddies at some blocks to remove them, and at large teddy heads for bonuses.

Each level ends when you find the exit, a stripey pole thing. There are three fairly large levels to each zone, and five zones in total, all with a different graphical theme and subtly different styles of level. All zones are accessible from the start of the game, and can be played in any order. On the last level of each zone there's also some sort of artefact to collect; all five must be picked up to complete the game. The silly plot has two rival groups sending agents to collect these five artefacts, so you can choose to play

either of them — Jellyhead or Dr. Subtech. There's little difference in gameplay: the screen is merely turned around so that one character would run in the opposite direction to the other. Some levels feature your opponent chasing you, which acts as a time limit.

What's most important with this fast-moving style of game is that it should be smooth. Fortunately, Big Bang is, even on ARM2s. It's good fun to play, although I think a few more levels (perhaps smaller ones) would help; you might get bored with the levels after a while, even though it's difficult to completely fully. Having said that, it's flippin' good value, flippin' good fun, and all-round one of the best platform games for the Arc.

Andrew Clover

Digital Psychosis, 14 Madingley Road, Cambridge, CB3 0EE. Oddball costs £8.95. Psycore, PO Box 3837, London, NW3 1JF. Big Bang costs £14.95. HD or DD discs.

Dune II: The Battle for Arrakis

Andrew Clover stands his ground and fights a great battle

Strategy games — they're really boring, right? No wonder Eclipse's advertising doesn't tell you what sort of game Dune II is: it's a strategy game, and everyone knows they're really dull. Well, most people seem to **think** so, but Dune II **is** a strategy game, and it **is** also a bit of a corker. Oh yes.

The background to the game is based on the books of Frank Herbert (or someone), but you don't need to have read any of them to appreciate the simple objective. This is to conquer the planet Arrakis (Dune), to gain control of its valuable spice deposits for your house. This you do by wiping out the enemy houses, whilst mining spice to pay for the war effort. You can choose at the beginning which of the three houses to play; they all have their own strengths, weaknesses, alliances and special weapons. The Atreides are the tedious goody-goodies who don't really like killing people all that much; the Ordos are the politician types; while the Harkonnen are the wicked evil 'orrible people. No prizes for guessing which house has the best weapons.

You start off each battle with a paltry

sum of credits. Your first action is to build a spice refinery and the wind-driven energy generator that powers it. A harvester trundles off into the sand and comes back loaded with spice, which earns money to build the more exotic structures available. There are radar outposts, gun turrets, starports, palaces, research centres, repair facilities, and many different factories. The factories can create all sorts of vehicles, from trikes and tanks to bomber planes. After a certain number of vehicles have been created, though, the dreaded "Unable to create more" message appears, which means you cannot build more without first destroying some enemy vehicles (it is unclear why). This makes the final battle extremely difficult, as there are so many enemy vehicles with so few vehicles available for your house to build.



*Sun, sand, tanks and a whopping great missile
come to blow half my base up. Erk!*

To start with, you need only harvest a little spice to progress to the next battle. However, after the first few stages, the aim is always to destroy all enemy structures. Near the end, you have to confront more than one house at once. But it is kill or be killed: your base must be well defended, else the enemy will destroy it as you're attacking theirs. Building the structures of the base is good fun, and slightly reminiscent of playing Sim City.

extremely powerful and explodes messily at will; the **Death Hand**, which destroys structures at the other end of the map (when it doesn't miss, anyway); and the Ordos' **Deviator**, which temporarily gives you control over opponents' vehicles (most useful for getting the Devastators to explode instantly). There's also Dune's native sandworm, which wanders around the map eating any vehicles not perched safely on



The Harkonnen have the better weapons but on the other hand you have to look at this guy

Controlling the vehicles is also easy: one click to select, one click to choose what the unit is to do, and one to specify where. Some mechanism to give tasks to more than one unit at a time would have been handy, however, for giving orders to every vehicle in a large attack force is just tedious.

Interesting new structures and weapons are made available with each new battle. Some of the best weapons are the house-specific ones: the Atreides' **Sonic Tank**, which fires screen-distorting sound waves; the Harkonnen's **Devastator** tank, which is

rock. Revealing these holds your attention and keeps you playing what is a very addictive game for a long time. Even if completed, the game can be replayed as the other houses. This is not a game you'll exhaust in a week.

Dune II is by the same team who brought us James Pond 2. Both games, alas, share the ability to crash often and without apparent provocation, leaving you in a blue-and-white debugging screen. Dune II has a few other bugs thrown in for good measure, like not



being able to change houses mid-game and the bits of graphic redrawn where they oughtn't to be, though any of these problems may well be fixed by now. Fortunately, Dune II does include the feature missing most irritatingly from Robocod: a save option. You don't normally lose a lot when the game crashes. The save feature is essential in any case, as battles can be rather long — hours long, in the final stages.

My only other gripe is that both the in-game music and the introductory animation from other platforms are missing. OK, so the game's already pretty whopping, what with all the excellent between-level graphics and animations: it comes on seven double-density discs (plus another for saved games), with all the disc-swapping that implies for floppy disc users. But surely a few extra discs of animation wouldn't be too much to ask,

considering the price? [Note: CD-ROM owning readers can see the intro on the cover CD of April's *Acorn User* magazine.]

Watch out though: you may come to your senses late at night, your eyes and mouse hand aching, to realise you've been playing Dune II for hours, missing meals and even **Star Trek**. It's that addictive. With three houses and ten battles to play, it'll last too. So if you can afford the rather high price tag (£35), and you don't have an allergy against strategy, go for it.

Andrew Clover

Dune II: The Battle for Arrakis costs £34.99 and is published by Eclipse, Unit 1 The Shopwhyke Centre, Shopwhyke Road, Chichester, PO20 6GD. Tel 01243 531194.

The ARM Club Discounts Scheme

Andi Flower gives the latest information on our money-saving scheme

Most of you will be aware of the Discounts Scheme which The ARM Club operates for members. A list is supplied to every member of companies offering discounts to members and details of the discount that they offer.

You will also have received a copy of the new ARM Club Discount Order Form. This form is the **ONLY** way in which you can now make purchases through the discounts scheme. You should fill out the necessary sections of the form and send it to the company from which you wish to obtain a discount. You may realise that The ARM Club does not have facilities for accepting payments by credit card, so this section must not be filled in when ordering ARM Club products.

Should you require another copy (or copies) of the form then please send a request for the number of copies that you require to The ARM Club at the FREEPOST address.

More companies now offer The ARM Club discount than in the past and more companies are being consulted at the current time. As and when they decide to join the ranks of those already offering you a discount we will add them to this form.

Remember, the more purchases you make through our Discounts Scheme, the more likely it is that we will be able to persuade new companies to join. Happy shopping!

Andi Flower, Discounts Officer

Arcturus from Oregon

Andi Flower is let loose on this recent release from Oregon

For those of you who have seen Inertia (an old Acorn game now), Arcturus will have a familiar feel; the basis of the game is very similar indeed. There is no background to this game, it is simply a challenge, can you manoeuvre your gyroscope around the levels and collect all of the diamonds without getting killed?

The game play is pretty simplistic but it is certainly addictive. It has that ‘I’ll just have one more go at this level and then give up’ quality, the only problem with this being that you tend to get more and more annoyed each time you get killed. However you do get a great sense of achievement every time you manage to complete a level.

By far the best aspect of this game is the graphics. There are many different effects used here and most of them are very impressive. The effects, however, do not simply occur within the game but extend to the entire menu system and (most impressively I think) the breakdown of the top ten screen.

Another excellent graphical effect is the way in which the main playing area rotates from the background to the foreground before your gyroscope is placed in its starting position. There are also many other little graphical effects, such as the explosions, bouncing mushrooms and the launching effect when you complete a

level that really add to the ‘nice’ quality of the game.

The design of some of the levels is very simple but some of the others are very complex indeed. They leave you thinking for quite some time about just how you should approach them. This is, of course, one of the good points of the game (it creates a tough challenge) but it is also in some cases very frustrating when you come across a level that seems almost impossible to complete.

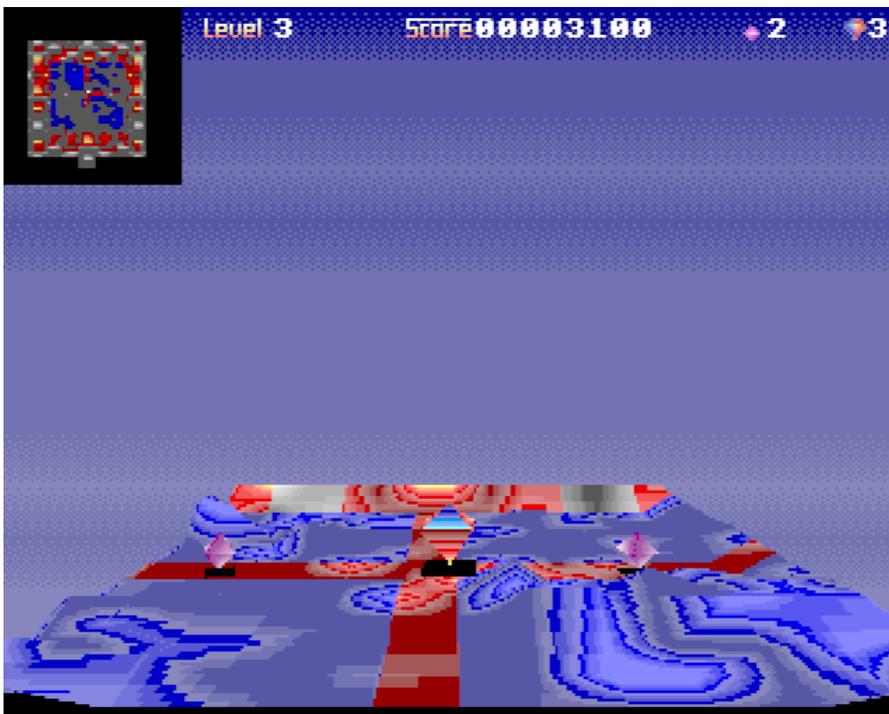
The selection of different types of floor textures is very well designed and thought out (although similar to Inertia) and the different enemies that have to be dealt with make the game a lot more challenging. There are certain types of surface that will destroy the enemies (such as water) or you can get them to chase you and fool them into falling off of the edge of the map. This also kills them off quite convincingly.



The enemies include various geometric shapes which are out to get you and include several suicidal ones which will explode on contact with your gyroscope (lovely, steer well clear of these!). Even though they do not kill you directly, the most annoying enemies I found were the little blue ones (not shapeless but difficult to describe) which simply ram and push you in any direction that they please. Not only is this disorientating but also very dangerous because they tend to push you into one of the various areas where you are bound to be killed.

The sound effects are good, nothing spectacular but they are fitting for the game and give it just that bit more atmosphere. The music is good as well, although this only plays through the menu screens.

There are a huge number of levels and to make the game just a little more easy on you, you are given a password every four levels (starting at level 5). To help you out, here are the first few: Level 5: AARIFB, Level 9: ZGRIG4, Level 13: 0FRIHA, Level 17: VORIAD, Level 21: JSRIBK, Level 25: KRRICJ, Level 29: I0RIDB.



Careful, that water's not for swimming in!

The way in which the enemies (and you, come to that) die is one of the most interesting graphical effects. As you hit something such as the water, your gyroscope "dissolves" into the water and shrinks.

Other little touches make the game far better than a simple 'find the diamonds and beat the baddies'. The extra lives actually run away from you when you get close enough so you have to be on your toes to manage to get one.

Be warned: these passwords will be different depending on how well you do. They include your score as well as all the other level details so try the levels on your own and see how well you get on.

There is also a distinctly easy way to cheat at this game when you come across a level that you find just that bit too hard, but I'll leave that for you to discover.

Arcturus is a very good game but it will only appeal to those who like its style in particular. For those of you who like racing simulations or shoot-em-ups, try this one before you buy or you may be disappointed. However if, like me, you like a challenge and want some really good fun then Arcturus is for you.

Andi Flower

Arcturus costs £24.95 from Oregon Software Developments, 36 Grosvenor Avenue, Streetly, Sutton Coldfield B74 3PE. Tel 0121 353 6044 or from usual games suppliers.

Members' Advertisements

Please keep sending in your letters and advertisements...

A5000 System for Sale

A5000 computer, 4MB RAM, 80MB hard disc, high resolution Acorn multiscan monitor, RISC OS 3.10, LaserDirect HiRes podule and various software. Lightly used only, in original packaging with manuals. £700 ono or part exchange for IBM compatible PC (for business use).

David Williamson, Tel 01474 872522.

RISC OS Training Day

Would you like to join an Introduction to RISC OS Training Day, more advanced than the Club *Building Blocks* course? I have been using my A3000 fitted with RISC OS 3.1 since it came out and enjoy using it. However I would like to learn how to fine tune it so I can make the most of the features of the operating system. As an example I would like to be able to design my own icons, write !Boot files & configure the font cache to expand as more fonts are loaded.

Steve Arnold has agreed to spend a day teaching me and anyone else who would like to learn. If you would be interested in getting involved please write to me c/o the Club Freepost address, including topics which you would like covered on such a course.

Clive Drake

Software for Sale

Genesis Plus £15, 1st Word Plus £10 brand new, E-Type £7.50, PowerBand £7.50. RISC OS Applications & User Guides £5 pair.

Martin Osborne Tel: 01962 880250 (eves)

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Brand new games for sale

All of the following games are new in boxes, complete and as supplied. I don't play games myself but was given these titles as payment for some work I did for an Acorn company. They are all £10.00 each or £150 for all 20!

4th Dimension titles: Saloon Cars Deluxe, E-Type Compendium (old hardware only), Enter the Realm, Stunt Racer 2000, Carnage Inc., Chocks Away Compendium, Chopper Force, Demons Lair, Break 147 & Superpool (old hardware only), Exotic Adventures of Sylvia Lane, Cyber Chess. Krisalis titles: Sim City, Turbo Challenge 2, Heimdall, Battlechess, Gods. Other titles: Lemmings, Zool, Warlock, Xenon II. Some games require 2MB RAM.

Tel Dave on (01932) 566435

8MB SIMM for sale

I have a single 8MB SIMM for sale, ideal for the Risc PC (it is the official Acorn part, removed from my Risc PC when I upgraded to more memory). Price: £175 inc postage.

Tel Simon on (0956) 828806

ARM Coding booklet

Geoff Stilwell has compiled our series of articles on ARM Coding by Mark Smith into a booklet complete with disc. It is available from the Freepost address for the princely sum of £2.00 including postage and packing. We are considering producing a similar booklet about accessing the Internet using Acorn machines, would anyone be interested in buying a booklet with software on disc?



Final Thoughts

The Club keeps on growing — great news except for the fact that those of us on the Committee are all volunteers and only have limited time & resources available to spend on Club work.

Please do bear this point in mind when contacting the Club, for example when asking for technical support by ensuring that you include sufficient information for us to be able to help with your problem. We want to help as much as possible but do have our own full-time jobs and families!

If you are lucky enough to have a local Acorn user group you will realise how useful they are — please do send in details of the group and we will publicise it to other Acorn users. If you don't have a local group then get in touch with us and we will help as much as possible to get a group up-and-running in your local area, wherever that may be!

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*The Leading Independent User Group for
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