

The magazine for members of

The ARM Club

Omega preview

**Stories of the Shows
from Epsom and
the Midlands**

**Classworks II CD
bargain price
compendium**

**The making of
DiscKnight**



Issue 37 — Spring 2001

The Silver Secret

The RISC OS 2000 Show will always be remembered for the revelation of the best kept secret since Acorn announced its own demise two days after breaking the news of Phoebe's birth.

The revelation that the Omega computer had been secretly developed by MicroDigital was a double surprise; the second part being that such a major undertaking could have been carried out without any hint of what was going on. With one jump, the company appears to have leapt ahead of its better known rivals in the race for the next generation RISC OS machine.

There are now some intriguing questions, the first being how will the potential competitors respond to the silver cased machine? How many RISC OS computers can compete in what is now a very small market?

To answer the challenge, any other make of machine will need to have even more new features or, at least,

have an equivalent specification at a competitive price. So — an exciting thought — how many new computers might we be able to choose from at the RISC OS 2001 Show?

Another possible development which remains to be seen is the effect the new machine will have on the unfortunately diminishing software market, now further depleted by Sherston's withdrawal from the RISC OS educational scene where it has long been a key figure.

Omega is at last offering some of the features missing from our now outdated Acorn machines which have caused so many users to reluctantly turn to the Windows computers where they have become standard. These major developments offer exciting new possibilities to software writers willing to take advantage of them.

We now have some positive cause to look ahead with optimism.

Peter Jennings

All opinions expressed in Eureka are those of the authors and not necessarily those of the Club or its Committee members and officers.

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Who and where to email, phone, fax or write for all Club services.

A computer crash has wiped all the emails received by the Club's Membership Secretary from Christmas to 8 January. Please send again if you emailed at that time and have not received a reply.



*A calendar made with one of
the programs on the
Classworks II CD (page 24)*

AGM

The Club's Annual General Meeting will be held at the close of the RISCOS SouthWest Show at 4.30pm at the Webbington Hotel, Loxton, N Somerset, on Saturday 10th February.

All Club members are invited to attend.

Omega

For some time, we have known that new faster StrongARM based machines are being developed by the manufacturers of RISC OS computers. RiscStation has been talking about the Evolution (a StrongARM based machine with PCI), ever since they had to change

IOMD chips. The Imago board is likely to be offered as a replacement for the Risc PC motherboard, or as a complete system by Cirillica called Nucleus.

Castle, who took over the making of the existing Acorn range after their

David Ruck looks at what we can expect from the new Omega computer which has burst on to the RISC OS scene after months of secret development.

their initial plans for an ARM7500 PCI machine, and released the RiscStation Lite instead. Although the hardware is being developed by the very capable SimTec, who developed the StrongARM and PCI CATS board which runs Risc BSD, we have yet to see even a working prototype on public display. The other main contender, Millipede has been demonstrating the Imago since the ARM Club's Midlands Show last year, running an impressive very high resolution graphics demo. However, it still requires more work to enable RISC OS to run with the new custom replacements for the VIDC and

demise, always hint at future developments but keep the cards close to their chest. Nothing had been known about the Kinetic Risc PC and upgrade until its launch at Wakefield this year. With the Kinetic replacing the memory system of the Risc PC with high speed SDRAM, it is not a huge leap from there to add a PCI bridge to form an entire motherboard. Therefore, they may well be working on a new machine.

Up to now the one RISC OS machine maker that no one knew much about was Micro Digital. They originally started out making the Melidi, a clone



of the A7000 in a shocking blue and green case, but ran into difficulties licensing it when Acorn left the workstation market. Their next offering was the Meco, an ARM7500 machine in a PC case quite similar to a RiscStation Lite, featuring a fast disc interface but nothing else really exciting. The company keeps a very low profile, not attending most

shows, with the exception of Wakefield 2000, where they showed off a ruggedised portable in a silver case, but with a b/w screen.

However the big surprise came at our RISC OS 2000 show, with a secret announcement had been kept under wraps until then. If we hadn't caught a glimpse of a poster while certain

stands were being built we'd have been just as in the dark as everyone else. The announcement revealed what Micro Digital had really been up to for the past two years – working on a new fast PCI based machine that would not only feature the current 233MHz StrongARM, but in addition can have Intel's next generation StrongARM, called the Xscale running at 733MHz to 1GHz plus! It turns out this is what the company wanted to concentrate on the entire time, and only developed the Mico to act as a test bed for some of the new technologies, such as the fast IDE controller, USB ports and the Lightning graphics card.

Quickly running through the specifications, we can see that the machine should offer performance superior to the Risc PC and Kinetic despite using the same 233MHz chip, due to a faster main bus, perhaps in the order of 2x to 4x. UDMA IDE drives are supported (up to 4), which will give transfer speeds of up to 30MB/s over 15x faster than the standard RiscPC disc interface. The PCI bus and USB ports will, with the availability of suitable drivers, allow us access to a vast range of add on

cards, and peripherals. USB is especially exciting given the falling price of scanners, printers, and digital camera which can be connected to it, with no need for additional SCSI cards, or unplugging of parallel or serial ports. It should be noted however that there is no support for traditional Acorn podule expansion cards.

The machine also features the Lightning graphics card that is capable of resolutions up to 2048x5136 in 16M colours at 72Hz. It also has 2D and 3D acceleration built in to speed up operations on the desktop, and potentially any games that are written to take advantage of it. Since experiencing the increase in performance with large modes that the ViewFinder affords, I have changed my view and now consider an accelerated graphics to be vital to get the best out of any machine. My only reservation in that the card is built into the motherboard, rather than being a standard AGP card. This could be a disadvantage as the technology of AGP graphics cards is increasing rapidly, with higher resolutions and better acceleration being introduced all the time. New

ones are starting to feature digital output necessary to drive very high-resolution LCD screens, which are set to take over from CRT's as the display device of the future.

The most exciting development has to be the ability to add the new Xscale processor (as Intel has unscrupulously re-branded the StrongARM2, in an attempt to pretend they invented it). This is the future of fast ARM chips, with the development roadmap promising the introduction of 1GHz plus variants in the new year. However, there is a snag, in that RISC OS and its applications will not currently run on this new processor, as it does not support the 26bit program counter mode that RISC OS has used since the ARM2 days. PACE and RISC OS Ltd are working on a 32bit version of RISC OS which can be used on the new chips, but this is still some time off, plus new versions of all existing RISC OS applications will be required. So its unlikely that we will see RISC OS able to fully utilise this new chip immediately. What will happen is that an increasing amount of RISC OS will be converted to 32bit mode, which will potentially be able

to run on the new processor. The only major chunk of OS code which is 32bit ready in RISC OS 4.02 is the floating point emulator, but more will be introduced in future versions of RISC OS, version 4.5 due next summer is expected to have support for running 32bit applications. While it would still take some additional work to utilise a combined StrongARM and Xscale machine to run these 32bit applications, at this point the additional performance benefit would become clear.

It certainly seems like this behind the scenes work has been worthwhile, the specifications of the machine are stunning, it certainly covers my wish list. The price of under £1000 +VAT (excluding monitor) is extremely reasonable, and places it well below what Imago/Nucleus is expected to sell at, and importantly comparable to similarly speced PC system. The additional Xscale processor card is expected to be around £100, so cheaper than a StrongARM upgrade for a Risc PC.

With the potential for three or more high end RISC OS machines to appear within the next six months, it

Omega Spec

- StrongARM-110 Rev T 233MHz
- Optional Xscale 80200 733MHz
- RISC OS 4.03
- 64MB PC133 SDRAM
(expandable to 1GB)
- ATA 66 Ultra IDE interface (four devices supported)
- Lightning graphics cards with 2D & 3D acceleration, hardware JPEG & MPEG decoding, 240MHz DAC 2048x1536x24bpp @ 72Hz
- PCI 4x 32bit/33MHz bus (2 free)
- USB expansion (4 ports)
- PCI Sound Blaster compatible sound card
- PCI 56K Modem
- Dual RS232 ports (460KB/sec)
- PS2 keyboard and mouse
- 20GB Hard disc
- 52 speed CDROM
- Floppy disc drive
- Mini-tower case, with larger case options available.
- Software bundle including;
Pipedream 4
EasyWriter
FireWorkz Pro
Sound Editor
Edit
Paint & Draw

is likely that the market is not big enough to sustain them all. The exception will be Imago which has its own niche market in TV graphics and will probably be the only machine to support podules. But of the others, the first to go on sale in a fully working form, is going to have an enormous advantage.

If Micro Digital skip ahead of the competition with a machine of the specification and price promised, they are really going to clean up. Coming as such as surprise, the whole thing sounds almost too good to be true, so I won't be able to believe it exists until I see one with my own eyes! Which hopefully won't be long as it is expected to be launched early in the year.

Omega

Price: £999 +VAT

Supplier: MicroDigital Limited
37 Titus Street, Saltaire, Shipley
West Yorkshire BD18 4LU

Tel: 01274 618774

Fax: 01274 619482

Email: sales@microdigital.co.uk

Web: www.microdigital.co.uk

The RISC OS Show Story

I have been attending Acorn shows for something like 12 years. Like most people, I gave little thought to the amount of effort required to mount such a show. Being involved in the creation of RISC OS 2000 proved an eye-opener, the complexity and

get customer feedback and show support for the RISC OS platform

For RISC OS users, a show means more than this; it is more like a giant user group meeting. On Saturday at Epsom, around a thousand RISC OS

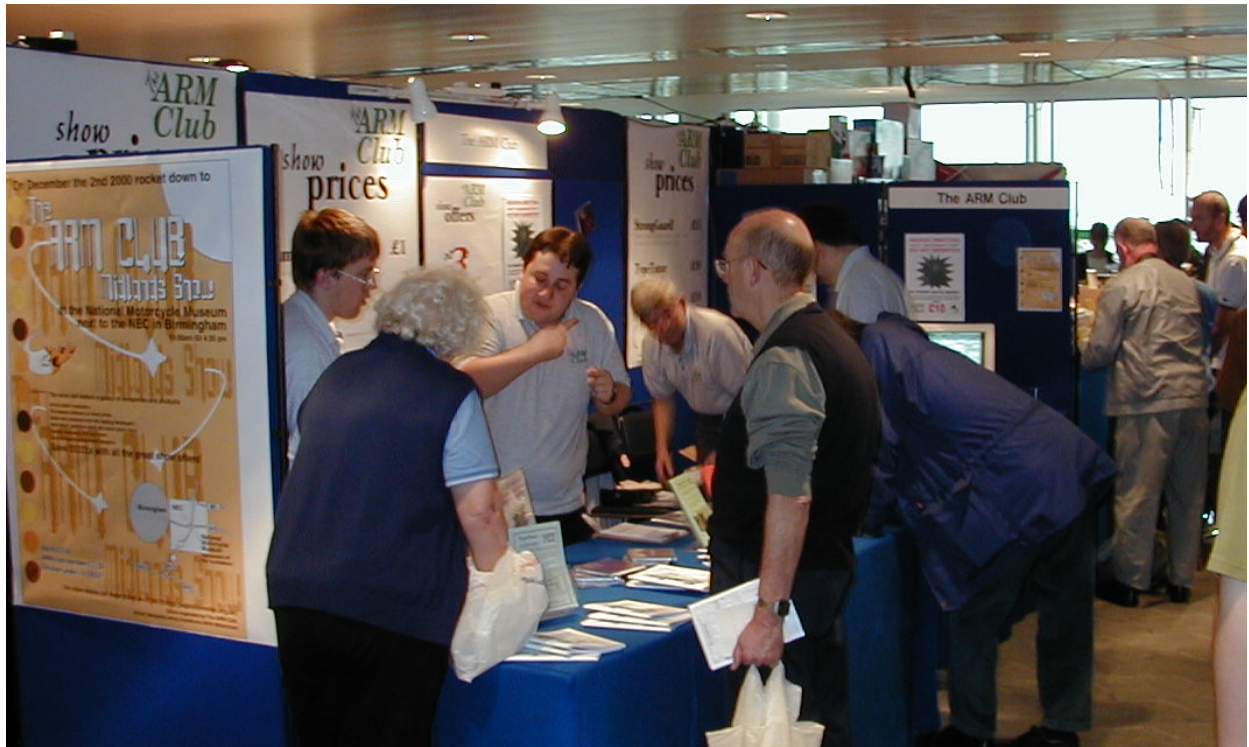
In the first of two instalments, John Sawyer tells the behind the scenes story of the nine months' work and planning which brought about the RISC OS 2000 Show.

hard work required to ensure a successful show is almost mind boggling. RISC OS 2000 was the result of nine months' planning and the two days at Epsom very much the very small tip of the organisational iceberg.

Before we begin the story of RISC OS 2000, it is worth considering why we have shows at all (a thought that all the organisers must have asked at times!). Shows are popular since they offer the opportunity to talk to exhibitors about their products, take advantage of show offers, listen to presentations by leading figures in the RISC OS world, enable exhibitors to

users and suppliers were gathered under one roof. Shows help keep the RISC OS platform alive and form part of the 'glue' that unites the RISC OS community. For many exhibitors, shows form a significant part of their turnover and keep them active in the market. In addition to the major Wakefield there are the SW, SE and Midlands shows and, since last year, the RISC OS Shows.

RISC OS 99 stemmed from a recognition by The ARM Club that there was a need for a substantial show in the South to replace the late lamented Acorn World and to complement the excellent Wakefield



The Club stand at RISC OS 2000

Show. The success of the inaugural Epsom-based RISC OS 99 meant that a successor, the 'Millenium' show, was inevitable. To avoid overloading the resources of The ARM Club (such as Mark Smith, the driving force behind RISC OS 1999) it was necessary to recruit more help.

It was with all these considerations in mind that the creation of RISC OS 2000 began.

An organising group was formed, comprising many ARM Club Committee members (Rob Brown, Mark Smith, Tom Hughes, Toby

Smith, David Ruck, Simon Burrows and Ralph Sillett) but help was also recruited from two local user groups, the RISC OS User Group of London (ROUGOL) and the Surrey and Sussex Acorn User Group (SASAUG). Each group member took on responsibility for individual aspects of show organisation. This used as a 'bible' an eight page document produced by Mark Smith and based on his experience of RISC OS 99. This gave guidance on individual roles and set deadlines and had two benefits. It provided a framework for show organisation and left no illusions as to the hard work

and commitment that lay ahead. Time for the faint-hearted to bale out! Nobody did, of course, and the organising committee stayed united throughout the nine month preparation of the show. Liaison was via regular meetings and emails. This was essential since not only were the organisers spread throughout the South but work sent Mark to Wales and me to the Midlands. At the weekend it was not unusual to find 20 to 30 show related emails waiting on my Risc PC.

Show organisation began in February, with Rob Smith booking The Queen's Stand for the weekend of October 21 and 22. This seemed a long way off at the time but the intervening months were to prove hectic.

Before we begin this part of the account, perhaps we should consider the venue. The use of the Queen's Stand had proved very successful at RISC OS 99. The stand has two large floors and a dedicated show theatre. Road and rail links are good and there is adequate local accommodation (and a pub over the road!). Car parking is available on site. The venue was known to the organisers,

exhibitors and visitors, also staff at Epsom are very helpful, all of which made life a lot easier. Against that the access to the upper floor is not good with only stairs or the one service lift via the kitchen. Also Epsom, like any venue around London, is relatively expensive.

Two main sources of income are stand sales and visitor entrance fees and here lies a basic dilemma. Do we charge exhibitors enough to cover the show costs? This may lead to stands being expensive and preventing smaller companies from exhibiting. Fewer exhibitors equal less satisfied visitors with an overall reduction in income. On the other hand cheap stands could be offered to encourage more exhibitors and rely on visitor income to cover outstanding costs. Although the show organisers were not out to make a profit, they certainly did not want to make a loss. In the event, the final arrangement balanced the two sources of income to cover the organisational costs. Epsom was perceived to offer good value but the need for a shell scheme adds substantially to the overall cost. Add in the cost of power, lighting, telephone and ISDN lines, insurance,

show guide, shuttle buses, first aid, ticket printing and a multitude of other expenses and the total cost of the show amounted to over £15,000. The use of the prestigious Queen's Stand has advantages and disadvantages in another way. Exhibitors do not like the cost or access but love the visitor numbers (and their tendency to spend money!). The visitors enjoy the venue for the smartness, atmosphere, layout and the majesty (pardon the pun) of the building. While manning the door I was struck by how many visitors were photographing the venue. Personally I am always bowled over by the sight of the Queen's stand as I approach the racecourse and find it is hard to believe that it hosts a RISC OS show. It gives a high profile to the RISC OS market and marks a major shift from the local 'school hall' type of event.

A commitment to the venue was made early, but the known costs were always a concern. Understandably, exhibitors do not like making a commitment and parting with a deposit too far ahead of the show. Mark and Ralph spent countless hours persuading would be exhibitors to sign-up. A number took advantage of

a discount offered for early commitment to the show and by the May Wakefield show around 10 exhibitors were on board, including the reliable Castle and RiscStation, who were also prepared to offer sponsorship. More potential exhibitors gave a tentative commitment but the lack of a list of firm confirmations was a worry. The early Press releases were useful in encouraging wavering exhibitors.

At the end of June it was necessary to make a go/no go decision. At this time we had around 20 exhibitors and the financial situation looked difficult. Nobody wanted to cancel with the inevitable bad vibes this would send out. Shades of the cancellation of the 1998 Acorn World! Also, the hard work that had been put in by the organisers would be wasted. With the projected visitor numbers the show was still just economically viable and the decision was made to go ahead.

Efforts were now focused on making RISC OS 2000 a great success.

Next issue: the story of the last four months leading to RISC OS 2000.

Site Seeing

In this edition I am going to suggest that you take a look at www.computer-clubs.co.uk. This is an excellent site created and edited by Dane Koekoek, the ex sysop of the Acorn Werewolf BBS.

IRC Dane communicated with both Icen (Ex SARC) and Launceston Computer Clubs to discuss layout, preferences etc and launched the present layout during the early part of November 2000.

Want to find a computer club within easy reach? Geoff Lane tells you the new Web site to visit for all the information you need.

Dane is the current Chairman of the Welwyn Hatfield Computer Club and in various conversation with friends it was mentioned the difficulty people had in trying to find a computer club close to where they live.

I have had numerous enquiries via the WHCC web page asking if I knew of clubs in other parts of the Country. Hence Dane's project.

Initially I had a few links to known clubs on the WHCC site but more was needed. There are many computer enthusiasts throughout the country and as a project and service to fellow enthusiasts Dane decided to create this page for use by all. Via emails and

The main consideration was to make it easy to find —it's no good having an excellent page if no-one can find it —so, at his own expense, Dane registered a Domain Name for it: computer-clubs.co.uk which should enable it to be found with searches using 'computer' or 'clubs'.

By the time you read this it may well change as it is intended to be a continually evolving site with more entries and method of listing but the following is a brief outline of it at present.

Log on to www.computer-clubs.co.uk and you will be taken to a simple main page, which loads quickly and is easy

The UK Computer Clubs Directory

Listing by alphabetical order

Click on a club's name to take you to their website. Click on their contact's name to send them an email. Some maps are also available by clicking on their location and/or county. [More information.](#)

You can skip down the directory by clicking on one of the following hotlinks:

[A-E](#) [G-L](#) [M-S](#) [T-Z](#)

Club Name	Location	Contact	Comments	When We Meet
Acorn Club North East	Heworth, Gateshead	Alan Harvey	Acorn / RISC OS computers only. Website still under construction!	Last Tuesday of the month, 7:30pm
Acorn Enthusiasts Group	Internet based club		Allows other like-minded Acorn nuts to find each other!	
Berkshire Macintosh Users Group	Various places, Berkshire	Ian Burn		Second Friday of the month

The directory, in alphabetical order, with hotlinks to the initial letter of the group with the name you are seeking

to read. From this main page there are currently four options: the first being 'View the UK Computer Clubs Directory'.

Click on this option and you are taken to a well laid out page with a columns type structure (table) which is easy to read giving the name of the club, the location, including the county if the town is not widely known, an email contact if known, a comments column giving what type of club it is and finally when it meets.

It is a long list and currently it is the 'Club Names' that are in alphabetical order. To assist navigation Dane has

included four links at the head of the page that allows you to jump to a certain group of alphabetic letters.

Search the page

Most modern browsers allow users to 'Search the Page' for words or data so it would be relatively easy for visitors to check on club locations by entering their own county, town or towns close by.

Back to the main page and there are three further links. 'Information' takes you to a page giving you a run down on the creation of the site, 'contact us' is a page allowing easy contact via an online form —this can

The ARM Club	Magazine based club	Information	Acom / RISC OS computers only.	Regular regional shows.
The Association of Acom User Groups		Neil Spellings	Directory of all the Acom / RISC OS user groups all over the world.	
The Computer Club	Radstock, Bath	Adrian Hooper	For any age, and any ability.	Second Friday of the month, 7:30-10 pm (ish)
The Family History Society of Cheshire Computer Club	Knutsford, Cheshire		Keeping members up-to-date with the latest genealogical software and techniques.	Second Wednesday of the month, 7:45-10pm
The Worldwide Amstrad CPC User Group		John Bowley	The premier Amstrad CPC club.	
UK UNIX User Group		Secretary		

Information on The ARM Club and others

be used to give feedback, suggestions or supply Dane with information on other clubs —and finally there is the ‘Guest Book’ to enable you to leave a public message for all visitors to see.

To the best of Dane’s ability he has checked the validity of the clubs listed, by sending emails to check that they are still operating,

Changing ISPs

However, the Internet is very volatile. Individuals are changing ISPs like they change their underwear, links can become out of date giving false information or the site gets moved and the old one remains on some server somewhere giving outdated information.

That is why it is important that all we enthusiasts assist with the info on this site and advise Dane of any mistakes.

It is an excellent site that will be of considerable use to many enthusiasts all over the UK.

Know some good sites?

Eureka needs somebody to take over this popular feature.

If you enjoy visiting Web sites and know some interesting ones, would you like to write about them, just four times a year?

If so, please send an email to The Editor at eureka@armclub.org.uk.

When Beebug discarded most of its Acorn interests, David Pilling, author of Ovation Pro, bought back the rights to his desktop publishing program. David has always been among that dedicated group of programmers who maintain a keen interest and provide personal

be based on a particular version of the program rather than the latest one. Now, however, that has been overcome with a new upgraded version, issued for the first time on CD-ROM, which relies on the honesty of the registered owners as its only protection.

Peter Jennings looks at the new additions to the latest version of Ovation Pro — now on CD-ROM — the desktop publishing program used to produce Eureka.

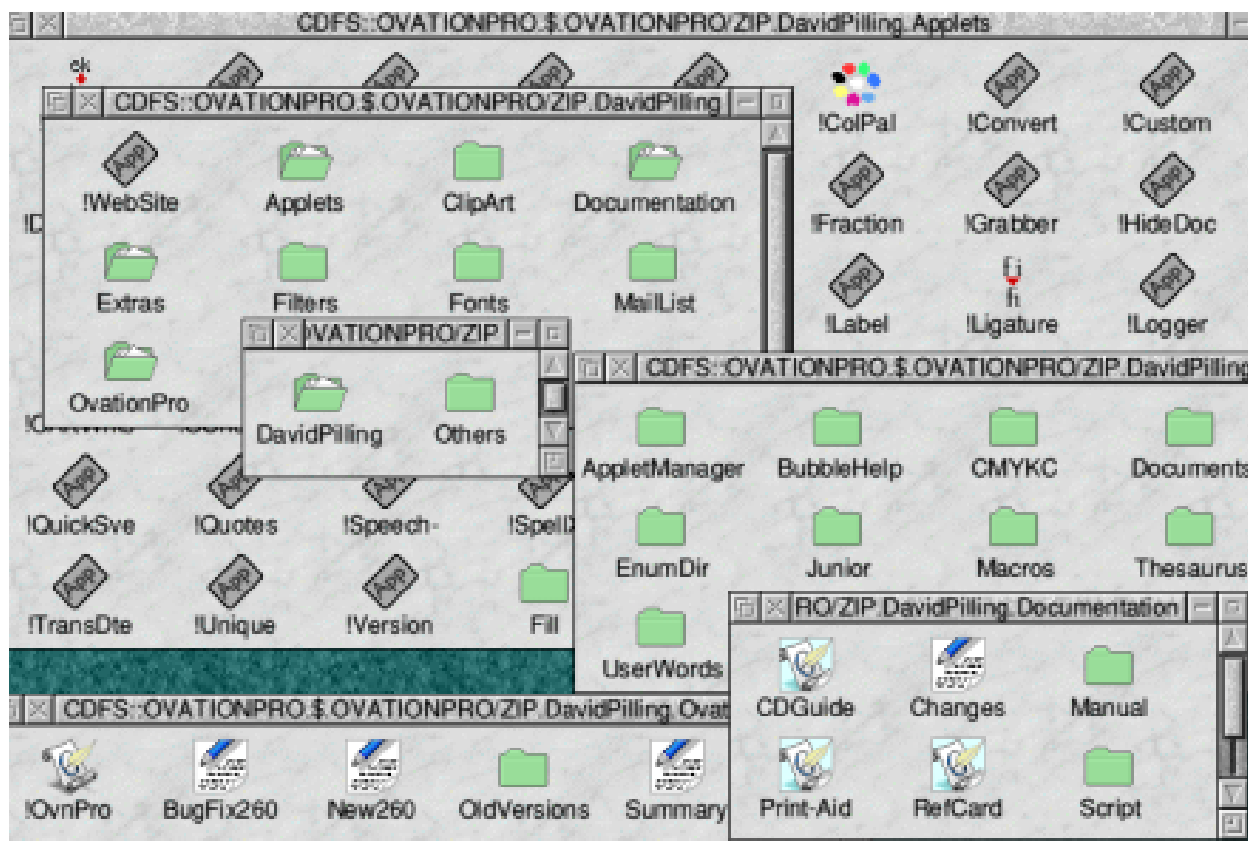
support for their software. Ovation Pro users have a Web site and a newsgroup where any comment or query, however offbeat or hackneyed, gets an immediate answer. Ideas for new features for the program are incorporated and bugs quickly squashed.

One particularly irritating problem David has had to cope with since taking full control was some anti-copying measures incorporated by a former member of the Beebug staff who left the company taking the secret with him. That meant that all the frequent and free upgrades had to

This comes as a complete package, suitable for new users, on a CD crammed with lots of useful extras, including a simplified Junior version. Existing Ovation Pro users can get it as an upgrade at a modest fee and it has already been sent free to recent purchasers.

This review is concentrating on the latest enhancements. The basics of Ovation Pro were described in issue 20, when it was first used to produce Eureka.

A good indication of the comprehensive range of the program



The program (bottom left) with some of the many extras on the CD-ROM

is the impressive range of documentation, in Ovation Pro format, covering all interests and abilities from newcomers to professional users.

This includes a revised and reformatted 306-page reference manual, despite the program being very intuitive and easily approachable. For everyday use there is an updated *Quick Reference Guide* showing all the Toolbox and Button Bar icons and listing the hot keys short cuts.

The first document to look at should be the *CD Guide*, which details and explains the contents. This is worth printing out as an A5 booklet, made up of eight double-sided A4 sheets, which could be a useful exercise for beginners. For those completely new to printing, however, there is *Print Aid*, a shorter, two-sheet, document which explains how to do it and is designed as a practical self test. The next step for new users could be to work through the clear and comprehensive *Tutorial*.

Applets

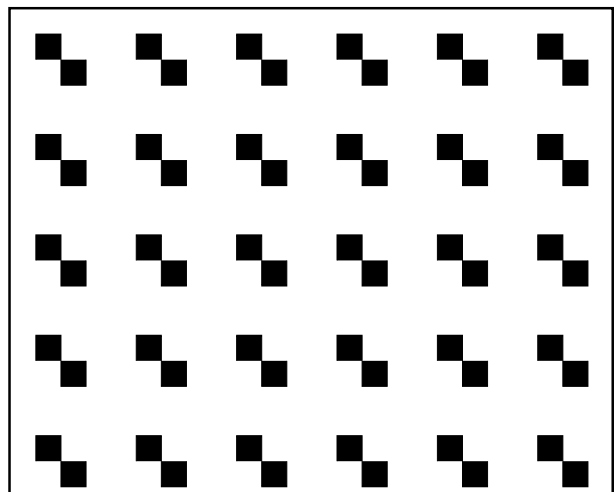
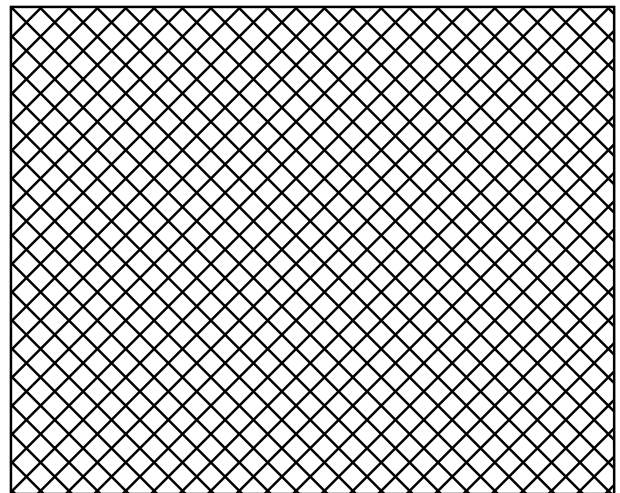
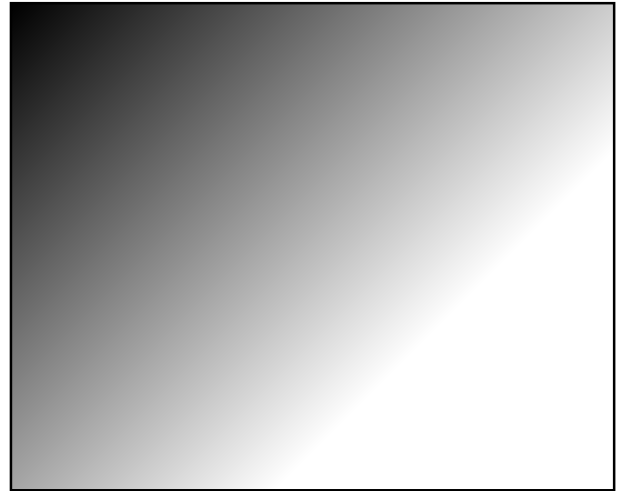
For the more advanced, interested in doing some programming, there is a 123-page *Script Language Reference Guide* for the ultimate in personalisation. This is not necessary for the rest of us, who can just benefit from the work of programmers who have written some of more than 80 *applets*, adding new features to the program, which are included on the CD.

The main applets can be found in their own directory with more from users in a larger *Others* directory which also includes sub-directories of software, dictionaries, filters, colours, resources, labels, toolbars, HTMLPro, Eurofont and examples.

Font families

They are all in addition to 100 items of DEC_data clip art, 20 iSV font families plus two from Acorn and four from Beebug and a mass of other software on a download of David Pilling's Web site.

That's all before we get to the major new features which have been added to Ovation Pro. One of them is the use of *referenced* and *proxy* pictures to



*Fills (from top): graduated,
hatched and 'blob'*

make it easier to handle large graphics. Instead of having the picture embedded into the page (and adding to the size of the document) it can be referenced by using its filename/path instead. The graphic will then be loaded only when actually needed, such as for printing. This feature can also be used when the same picture is to appear several times in the same document.

A small fast rendering *proxy* picture can be used in place of a large slow rendering one, usually one being referenced, while the document is being edited.

There is also support for EPS (Encapsulated PostScript) graphics.

Frame fills

A *Fill* applet now adds three new choices to the normal solid background colour which can be given to a frame or closed line. These are solid graduated backgrounds shading between two colours in various ways, and hatched or 'blob' (small repeated shapes) transparent fills which allows the background colour to show through, each with a variety of arrangements.

Paragraph numbering

Then there is auto paragraph numbering and bulleting.

1 The numbers preceding the present paragraphs have all been automatically inserted.

2 This has been done by the new auto paragraph and bulleting feature.

3 It allows a choice of numbers, characters and letters in various styles.

4 They include: (1) 2) iii 1.4 (e) f).

5 Or various types of bullets can be used, such as: • and *. They can be in a different font, such as: ○ (which is Selwyn), in a different colour and with optional tabs (as used here).

6 More styles are promised.

Impression document loaded

One new feature which will be of particular interest to those Impression users who have previously been reluctant to switch to Ovation Pro is an Impression document loader, which will allow their present files to be used with most existing styles.

Errors

It is difficult to criticise a program where any bug or perceived shortcoming is normally dealt with immediately but I am pleased to say that I can fearlessly expose *two* errors (admittedly trivial) in my copy of the CD, although as I reported them they will long have been corrected! However, if you had one of the early batches issued before Christmas you may find that the last paragraph of text on page three of the Quick Reference Guide doesn' t make much sense where it is. If you do a quick cut and paste you can move it to its rightful place immediately below the Toolbox on the following page.

Secondly, if you are working through the Tutorial you may find the *Keys with Ctrl & Ctrl Shift* shown in it differ slightly from those on page three of the Quick Reference Guide. If so, the Guide has the correct, updated, version.

That was the worst I could find! So it must be quite clear now that I like Ovation Pro, particularly since I have chosen to use it for Eureka for more than four years.

With its advanced features, including those for colour printing which we can' t of course show, and its ongoing program of enhancement, it gives RISC OS computers a desktop publishing program easy enough for everyone to use but comprehensive enough for professional work.

New users get the old Beebug pack, including the printed manual, as well as the CD-ROM. Existing users will not need telling that the upgrade price is a bargain.

Ovation Pro CD-ROM

Price: £150 inclusive

Upgrade £35

(Free for users with serial numbers between 5000 and 5200)

Site licence: unlimited £300

limited £150 both plus single cost.

Supplier: David Pilling

PO Box 22,

Thornton Cleveleys

Blackpool FY5 1LR

Fax: 0870 0520 941

Email: david@pilling.demon.co.uk

web:

www.netlink.co.uk/users/pilling

No Problem To Our Help Team

Slow starts

Question:

I have been comparing start up times with other users and it seems that, since the installation of RISC OS 4, the interval between switching on and being able to start work has lengthened.

cause a long delay while ADFS looks for them. I suspect that when you installed RISC OS 4, you set the ADFS drives to '2'.

Double click on !Boot and select the disc configuration. If you have one drive on ADFS and the other on the

A selection of the problems sent in by members with the solutions provided by the Club's Technical Help Service, co-ordinated by David Ruck.

In my machine I have two slices and two hard discs, the second of which is connected via an APDL IDE interface. There is also a Computer Concepts scanner card.

APDL interface, ensure that IDE hard discs is set to '1' only. The APDL interface will automatically detect the other drive and does not need configuring.

I experience delays of up to two minutes. Just how long should it take, and how might the situation be improved?

G T Swain

Answer:

Check that you have not configured more drives than you have attached to the internal interface, as this can

Moving to a Mac

Question:

I'm sorry to say, but some African colleagues need to leave the Acorn platform and move to a Macintosh (or even a PC as a last resort). They have approximately five years' worth of work on their Acorns. For reasons of support and compatibility with other educational institutions within Africa and in Canada we need to

convert the Acorn files to Macintosh. Current files are on: Acorn RISC PC 600 and 700; using RISC OS 3 (version 3.50 - 18 February 1994 and 3.60 - 13 April 1995 for model 700); with the following three programs: DTP Impression Publisher+, ArtWorks for the Archimedes, Equasor (1990) for the Archimedes.

How do we create Mac readable diskettes? Can the Acorn programs save the files in cross platform readable formats?

Barbara Lange

Answer:

OK, some points are easier than others.

ArtWorks:

This has export facilities to save in various EPS (encapsulated postscript) suitable for loading into programs such as Adobe Illustrator, Corel Draw and other programs which support this format.

Not all features of the ArtWorks file will be supported in some formats and things like graduated fills may be difficult to edit after conversion, as

they become many thousands of individual shapes. You will have to convert any text objects to paths, and export embedded sprites separately.

Xara Studio (remember —ArtWorks converted for the PC) can actually import ArtWorks files, believe it or not.

Impression:

The text in individual frames can be exported as plain text, or Rich Text Format (RTF) if the appropriate plug-in is available. Another option is to 'save with styles' and then import it into either the Acorn version of !EasiWriter or !TechWriter and save out again in MS Word format, or load directly into the Mac and PC versions of these programs.

Any graphics in frames will have to be converted separately. Sprites can be saved either as JPEGs (best for full colour pictures) using !ChangeFSI, or as GIFs (for illustrations) using !InterGIF. Draw files can be converted to EPS via ArtWorks, or WMF (Windows Meta Files) using !Draw->WMF. Text and embedded sprites to be converted as for ArtWorks.

Equasor:

Save as a Drawfile and follow the method for Impression frames above. The equations will not be easily editable after export however. No software exists on another platform which can read Equasor files in a useful form.

All modern Macs support 1.44MB DOS format floppy discs, which can be written on the Acorn. When saving ensure that you use the appropriate file extension to enable the Mac/PC to recognise the type of the file.

Please make sure that the machines which are being replaced do not go to waste. There will be years of life left in Risc PCs and I'm sure they would be put to good use elsewhere.

Overhead projection**Question:**

Please could you tell me if you know the requirements for making an overhead projection presentation on RISC OS computers? I'm aware of the software available, I think, but what hardware is necessary to connect to the equipment available in places such as University lecture theatres, for example? Are Acorn

machines compatible? Would a future portable be compatible and where would I get the cables etc from; an Acorn dealer?

Andrew Weston**Answer:**

RISC OS computers will drive just about all video projectors, as long as they have an analogue VGA input, which they invariably do. All that is needed is to select a suitable mode, such as 800x600 or 1024x768, and maybe a slight tweaking of the monitor definition file to obtain the best results.

Do you need help?

The Club's free Technical Help Service is one of the most appreciated benefits which come with membership.

If you have a problem with any aspect of RISC OS computing send it by email, if possible, to support@armclub.org.uk or write to the Club's Merton Court address on page 80.

Classworks II

Like many others I needed to obtain a branching database program in order to comply with the QCA scheme of work. Since others had recommended *ReTreeval* from Kudlian I rang to find out the cost of a site licence. To my surprise I was

which you can add your own graphics **ClipArt:** the drawfiles used by other applications in example files.

DataSheet2: a simple introductory spreadsheet

DataSweet3: a collection of simple but effective data handling programs

Di Hillage tells how she looked for an educational program with a site licence and got it on a CD full of additional software, all at a single bargain price.

told that I could buy their CD titled *Classworks II* for £60, which included a site licence for all the applications on the CD.

The Kudlian RISC OS software has been around for some time and includes some excellent material for primary school use, much of which is also of use to other age ranges. The titles included on the CD are in separate squashed directories with instructions for copying them to hard discs or floppies. They are:

Gallery: lets you find, display and print selection of Draw, Sprite or JPEG files.

Pictogram: to generate pictograms !

PortFolio: RISCOS version of a MS PowerPoint type of application

RepTile: generates interesting tile patterns

ReTreeval: a branching database program

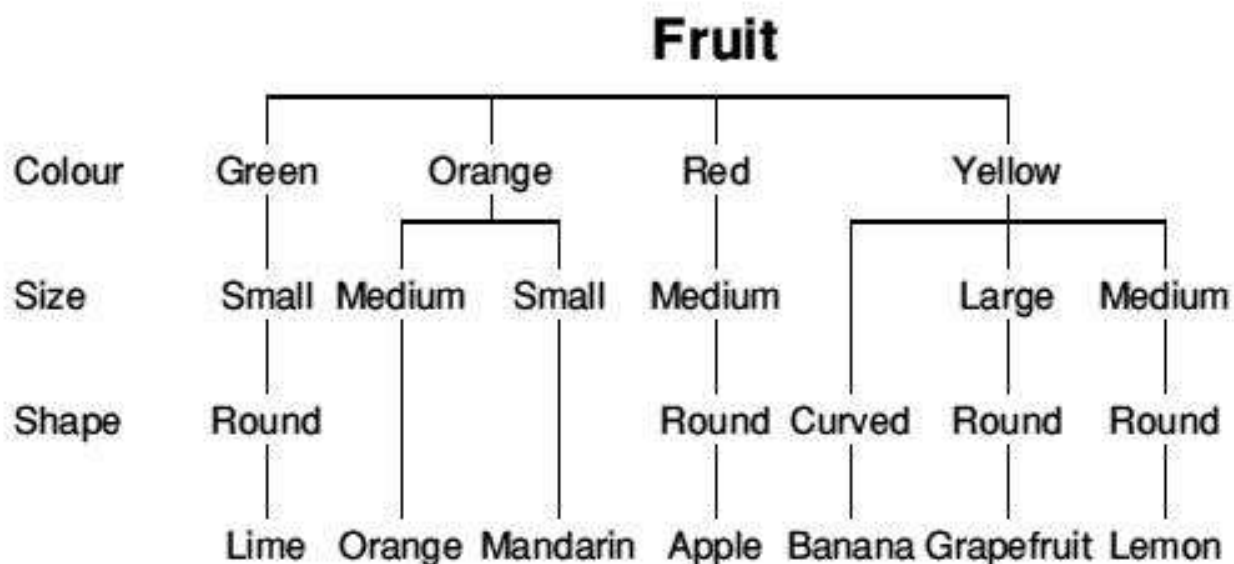
Splosh and **Splosh+:** painting programs

Terry: introduction to turtle graphics

Word Library: a word bank utility

Banner II: to print large posters across several sheets of paper
Calendar: produces calendars to

The package includes a CD and an A5 ring folder with manuals for most of the applications. Mine included the



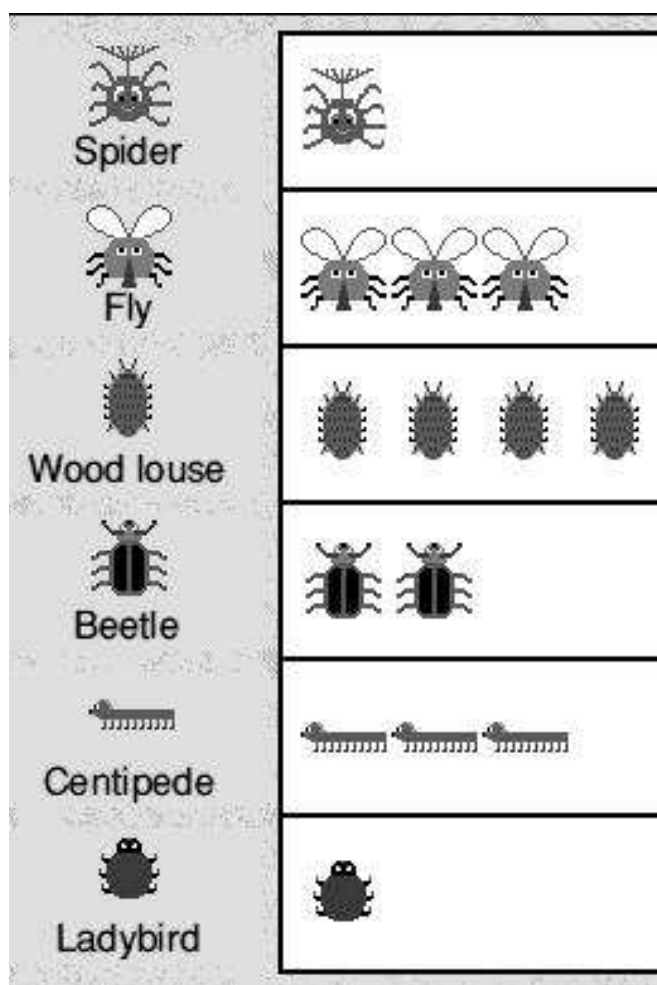
A summary of a branching database of fruits

manual for *TableMate*, which was not on the CD, but which, as an Impression user, I have anyway. I don't know, but would be interested to hear, the history of the company and thus whether they feel that sales of RISC OS software have now dwindled so much that the CD is something of a clearance sale. Many of the titles are being upgraded and transferred to Windows and Mac formats, which will doubtless command far higher prices.

It is clear that some of the programs are now rather dated, with the ideas currently incorporated into other applications. Owners of *TextEase*, for example, already have the resources provided by the Word Library and

Banner. Nevertheless all the programs are simple to use and effective in achieving their aim and remain as useful now as they were when first introduced.

The Data handling titles will provide a useful addition to other more complicated programs and will provide an excellent introduction for younger users. Pictogram and DataPlot enable graphs to be produced easily with a computer and teachers will find that very little expertise or explanation is needed to get pupils going with these utilities. Picture sets are supplied with Pictogram to cover a range of likely topics such as cars, mini-beasts, pets, travel to school etc. The whole range



A pictogram of mini-beasts

of data handling programs is delightful with the current versions built on years of experience in the classroom. While other teachers are bombarded with adverts for this or that latest piece of data handling software, with its complex range of facilities, those who have remained with RISC OS can relax and have every confidence in the ability of Kudlian's software to deliver the tools they need to satisfy the data handling

demands of the National Curriculum.

Splosh is a simple painting program with the features you would normally expect to find in such packages. Splosh+ has extra features to allow tiling and symmetrical effects. Like many schools we have used *Dazzle* so far and have been less than impressed with the realignment of its cost to match the Windows market. Splosh offers much the same facilities, with extra features, which are useful with younger children, such as the fixed window allowing the picture area, tools and colours to be visible together at all times.

Calendar is one of my favourites — mainly because it is so easy to use. A five minute demonstration in the after school computer club with a group of Year Three pupils was all that was needed to get them going. A choice of displaying one month, two or a whole year starting whenever you wish is available, together with a range of borders in various colours. The picture can be your own design, a scan of other artwork, a digitised picture or whatever you wish and is

simply dropped into the frame. I was particularly interested to see some of the pupils using the program independently and confidently some days later. Many interesting and perhaps fund raising ideas here, me thinks!

If you have moved on to a digital camera and want to entertain the neighbours with your holiday snaps, then PortFolio is just what you need. You need only to save the images into a directory, naming or numbering them in the required order, and then drag the directory onto the loaded Portfolio icon. The images will then be displayed manually or automatically, with associated sound files if you have recorded them, and with an assortment of clever fades between shots. Needless to say this could also be used for your lecture notes, to demonstrate the children's work at parents' evening or for hundreds of other ideas, some of which are given as examples to stimulate your imagination.

There is so much on the CD that it is impossible to give a detailed review of all the programs. The general impression is one of well designed and soundly programmed

applications that are a delight to use. I have always maintained that those brought up on RISC OS computers tend to want to use the technology to do or create something, whereas those who use only Windows expect the computer to do something to or for them. These programs typify the best of the RISC OS ethos. The simplicity of use is most impressive but does not imply any shortage of facilities. I do hope that the writers will continue to develop RISC OS versions of their products as well as meeting the demands of the more lucrative Windows and Mac markets. Meanwhile at this price the CD is a bargain not to be missed by any school or home with younger children where RISC OS computers are used.

Classworks II

Price: £60 + VAT and postage
(including site licence)

Supplier: Kudlian Soft

8a Nunhold Business Centre
Dark Lane, Hatton

Warwickshire CV35 8XB

Tel: 01926 842544

Fax: 01926 843537

Email: support@kudlian.net

Web: www.kudlian.net

ARM Arena

As the months pass without a great deal of commercial releases, the RISC OS games scene continues to be kept active and interesting with new public domain games and news of planned releases still under development. It's good to say that

at the time of writing it is not yet complete, there are several intriguing new items within it. Iron Dignity, the three-dimensional battle simulation, has had its own dedicated site for a while now which is accessible from the main Artex Site (see regular

Andrew Weston finds plenty of developments to interest him in the RISC OS games scene and looks forward to some exciting new releases on the way.

there is therefore plenty to write about once again.

Artex News

Over the period of time that I have been writing this column, regular readers will have noticed that I've always tried to keep you up-to-date with regards to probably two of the most eagerly anticipated titles under development. Artex Software's two projects, TEK and Iron Dignity have been much delayed, primarily due to issues of obtaining funding for them. Since the Artex show, little has been publicly seen or heard of the projects. Recently however, Artex have revamped their website and although

contact details at the end). Several new screenshots are available from this site and these show the astonishing level of realism that the game has always promised. A new downloadable 'film' demonstrating the game is now available but it is not easily viewed on Acorn machines (it's an AVI film requiring decompression code usually available with PC software) and is very large (74 MB!). However, there are screenshots now available on Acorn Arcade and I understand the demo has a similar impact on the viewer to the original when it was first seen. Sadly, it appears (from newsgroup rumour, hearsay and website content) that



One of the latest shots of Iron Dignity showing the Earth-based scenery in a war-stricken future.

most work is being done on the PC version and a RISC OS version will not be released until the PC version is completed. Jan Klose of Artex has stated however that Artex want to make RISC OS versions but the funding must come from revenue generated by versions for the more popular platforms. A similar situation presumably applies to the real-time sprite-based 3D strategy game TEK 1608 which is also being developed

for more than one platform. However, the Artex site carries more detailed information on this project such as a programming 'diary' indicating the additions to the game and the features to be present in the final version. This makes fascinating reading for RISC OS games enthusiasts and, indeed, there are to be some highly appealing components and features in the game in the audio and visual departments and sophisticated algorithms for

realism in computer-controlled objects. If this sounds interesting, I strongly recommend reading about the game on the aforementioned website. It seems, however, that we will have to wait considerably longer than originally planned for both releases so let's hope that there are other releases and developments to keep us occupied until they're finished.

Spheres of Chaos

One new game, released in time for the recent Epsom Show, is Spheres of Chaos by Iain McLeod. It is essentially an update of the old 'asteroids' game with many enhancements. The player takes control of a two-dimensional spacecraft and rotates around to fire at oncoming hazards (traditionally asteroids). Iain has added aliens, end-of-level aliens, many graphical effects (explosions etc), much sound and striking use of psychedelic coloured backgrounds. This visual feast is shareware and thus, if you wish to keep playing it, you must pay £15. Full details are on his website included in the list at the end of this column. Alternatively, Iain provides a phone number if you don't have Internet access.

Darklands

I have mentioned more than once this on-going project by Matt (tymaja@my-deja.com) which promises much in gameplay, not to mention graphics. Darklands is to be a 'Civilisation'-type strategy game where one attempts to rule a community and watch it grow. This was first mentioned on Gareth Moore's 32-bit Acorn Gaming pages and an early preview of the game is to be found there. The player starts several hundred years in the past and moves forwards towards the present as the game progresses. Matt has recently posted to comp.sys.acorn.games saying that the development is 'going well' and as promised (albeit slightly earlier) he will establish a website and release a demonstration soon. The graphics have reportedly been improved since the first preview so this is a game to watch out for and I'll certainly try to pass on any information I can find if you watch this space!

Starfighter 3000

Another ongoing project is the upwards compatibility of this classic aeronautical combat game. Chris Bazley has been working on several

updates in addition to the compatibility on StrongARM-based and RISC OS 4 machines. Previously separate patches had to be downloaded for both requirements but Chris has incorporated both and improved support for each in a single patch now available from the Starfighter 3000 web-pages detailed below.

A further piece of news is that man-of-numerous-projects, Nathan Walker of VOTI, is to deal with correspondence regarding updates of the game. This is at Chris's request, apparently, to allow him to concentrate on developing the game while enquiries are channelled through another point.

Shanghai Patience

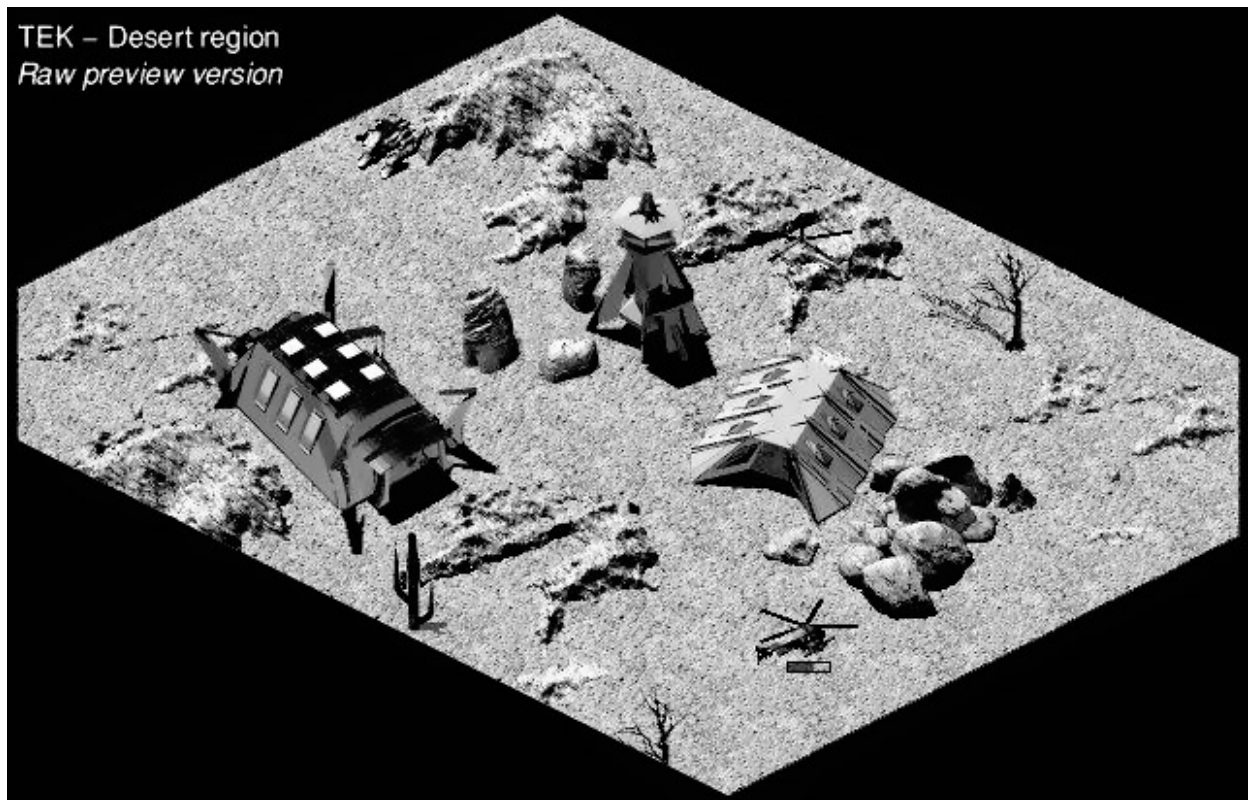
One RISC OS user with a widespread presence in the market is Paul Vigay who contributes on the Internet through vigay.com and riscos.org, and who is the PD page columnist for Acorn User and provides technical support for the ANT Internet Suite. Paul has recently found the time to make an up-to-date version of the Chinese patience game Shanghai. Several board and card games have

been written and made available in the public domain, such as on magazine discs over the years and are often quite engaging.

This game is traditionally played with tiles as opposed to cards and the objective is to remove all tiles arranged on a grid while obeying various conditions. Play is within a desktop window and has various additional features beyond the classic board game such as undo move (with time-penalty incurred!), optional in-game assistance and a customisable graphical front-end. Shanghai seems to be very colourful and once learnt this kind of game often provides many hours of enjoyment. Considering also it's freeware then why not visit Paul's website and download a copy?

Hardware developments

In a slight departure from the usual content of the column, I'd just like to briefly discuss certain new developments in the RISC OS platform in general. It is, of course, on the success of the hardware and the operating system that any area of software development depends and looking into the near future for the



The latest TEK screenshot showing desert region scenery which it is possible to hide behind.

RISC OS games scene could prove potentially grim with only a handful of promised releases and no news of any imminent conversions.

Dedicated groups

I can only try to reassure readers of this column that a few dedicated groups or individuals are working to do something about this, for example Fantasia, VOTI and Artex, while the development of titles should not usually be postponed for new hardware to be released, it is the new

machines that are being designed and produced for release in the near future that will generate a larger user-base and ultimately generate more interest in the games scene by a variety of means (you will no doubt be able to read about the new hardware in this issue of Eureka and in other magazines such as Acorn User). Therefore, it is to be hoped that the dedicated persons who want to release something new for RISC OS will keep existing users interested enough to acquire their products until

more users of the platform emerge. The past two years has surely shown that even in the absence of a high rate of commercial releases there has been significant interest in using Acorns and other RISC OS machines purely for leisure. Occasional releases and public domain activity have thus provided cause for optimism and the situation looks set to slowly improve over time.

Next time around

Until the next column, I hope I've covered most of the major news adequately and it is enough to keep games fans interested.

Next time I'm hoping to bring some more news on VOTI's next project EMD, the overhead motor-racing game with fast-paced graphics. Also I hope to bring news of further TEK 1608 developments as Artex are promising this is '*coming soon*'.

These days if you want to keep ahead with all these developments, Internet access is essential really but, as ever, I'll try to summarise here in print any news I hear so you can read all about it at leisure whatever you want!

Contacts

Artex Software

www.artexsoft.com

Acorn Arcade

www.acornarcade.com

Spheres of Chaos

www.chaotica.u-net.com

Telephone: +44 (0)1925 851887

Starfighter 3000

www.starfighter.acornarcade.com

enquiries: c/o Nathan Walker,
wraith.voti@ntlworld.com

Shanghai Patience

www.vigay.com/riscos/apps/shanghai.html

32-bit Acorn Gaming

www.acorn-gaming.org.uk

Have your game reviewed

If you have written a game and would like it reviewed in this column please email details to The Editor at eureka@armclub.org.uk or write to the Club's usual address, on page 80.

The Making Of DiscKnight

One of the best features of RISC OS 4 has to be the new filing system. It finally allows you to give files long meaningful names and not have to create sub-directories because you have tried to put more than 77 files in a directory. Plus it is much

of fsck) could repair the problems. Everyone expected that these tools would be updated to handle the new format but Sergio declined for whatever reason and no one else stepped forward to take up the challenge. As more months passed,

David Ruck reveals how a computer disaster led him to develop the hard disc saver that has now become one of the Club's best selling software at a bargain price.

more efficient at storing small files on big discs, you can often get back up to 25% of the disc which was wasted with the old format.

But after a few months of using this new format people started suffering disc problems such as broken directories and *CheckMap reporting 'map inconsistent with the directory tree', usually as a result of programs crashing or power failures.

The same problems can happen with the old disc format too but the difference was that utilities such as Sergio Monesi's *fsck* and Oregon's *Disc Doctor* (the commercial version

people started to get worried about the lack of any tools and decided to leave their discs in the old format or change back to it. For some people the long filenames were the main reason for upgrading to RISC OS 4, so they put the purchase off altogether.

Being a registered developer I'd obtained copies of RISC OS 4 a few months before everyone else and had quickly taken advantage of the new format for all my discs. I had been using it without problems for more than six months but just after the Wakefield 2000 show, when testing out a previously untried combination of hardware and software, I had a

crash. The worst possible error under RISC OS greeted me as I rebooted: 'Disc not understood'. This means that the computer won't even try to look at the disc and all the files are inaccessible.

Luckily I had taken backups, as everyone should regardless of what format they are using. I had put the most useful programs on a ZIP disc just before the Show (to take with me in case I needed to solve problems on other people machines —I can't be without a correctly configured version of Zap!). I'd also done a full backup to Syquest cartridges six weeks before.

Disaster

As I restored the backup files on to my second hard disc I found everything was fine with the exception of around 40 shareware apps I'd downloaded in the previous weeks. But then I discovered that when I moved my Internet directory some time ago, I'd deleted the backup and not made a new one — *disaster!* —my highly customised copy of the ANT Suite and more importantly, five years of email, both personal and relating to current projects, was lost.

If it hadn't been for this, I'd have just reformatted the disc and called it a bad day but I really needed to recover that information. After re-installing the ANT Suite from floppies and downloading all the extra bits to make it work properly, I set about asking various companies and individuals I suspected might be working on repair tools. Unfortunately I was greeted with silence, so there was nothing else for it but to start work myself.

The first step was to gather together all the information on disc formats I could get hold of. The PRM's covered the old format and the extensions to handle greater than 512M discs but the only source of information on the new format were the specifications for the Ursula project (as RISC OS 4 was known inside Acorn). There were also some explanatory documents on the old format written by Sergio Monesi and Acorn's Philip Colmer, which I found useful.

The first chance I had to look at all this was on the flight over to Dublin for the late May bank holiday weekend with The ARM Club's Mark and Tom. As the wheels left the runway I turned to the chapter on

FileCore (the module responsible for handling disc formats) and remembered when I first got hold of the PRMs and read them from cover to cover.

I had found this section incredibly difficult to understand and gained terrific headache trying but at the time remarked “Thank God I’ll never need to know any of that!” How wrong I was. Reading the chapter was no easier the second time round and resulted in another terrific headache. As I worked through the chapter and pointed out tricky bits to Tom, he looked a little unwell too. I thought it was from trying to get his head round the FileCore quandaries but as he revealed once we were on the ground, it was his first flight and disc formats weren’t the best in flight reading to steady the nerves.

After returning from a very enjoyable weekend taking in the *craic* in the Temple Bar district of Dublin, I set about writing a program to fix my faulty disc. The initial task was to investigate the boot block, as this is the part of the disc that FileCore needs to look at first. It contains the disc record, which tells the system

where the other crucial structures on the disc are located, as well as the defect list describing any physically damaged areas of the disc which should be ignored. The defect lists (there are two on discs larger than 512MB) and the whole boot block are protected with checksums, so it was easy for me to find out that these were OK my disc. The problem must be in the disc map (which describes if each part of the disc is used or not).

Find the map

The first real challenge was to find the map, it lives in the middle zone of the disc, the address of which is calculated by multiplying several of the disc record fields together. However it wasn’t where I expected. It turns out that the middle isn’t quite the middle, the whole thing is offset back down the disc by a significant amount, due to the first part of the map containing another copy of the disc record.

Once I had worked this out and copied the algorithm from the PRMs to check the checksums and cross check values that allow you to detect corruption in the map, I discovered that two zones were damaged. On

Glossary

Boot block	Area at the beginning of a disc containing the disc record and defect list.
Checksum	A way of adding a number of bytes together to produce a single value which can be used to check if the bytes have changed,
Defect list	A list of areas of the disc which are faulty and should be ignored.
Disc record	Describes the shape of the disc, so the map and root dir. can be found.
E format	An 800K floppy disc or hard disc format with short filenames.
E+ format	An 800K floppy disc or hard disc format with long filenames.
F format	A 1.6M floppy disc or hard disc format with short filenames.
F+ format	A 1.6M floppy disc or hard disc format with long filenames.
FileCore	The module responsible for handling disc formats.
Format	Describes the structure and layout of items stored on the disc.
Long Filenames	Filenames that can be a maximum of 255 characters in length.
Map	Describes which areas of the disc contain files and which are free.
Root Directory	The top-level directory on the hard disc, called '\$'.
Short Filenames	Filenames that can be a maximum of 10 characters in length.
Zone	Discs are divided in a number of to zones that are treated as almost separate discs. This makes it quicker for FileCore to automatically keep files unfragmented.

writing correct values to the disc, I found to my delight that the disc was now readable again by RISC OS.

There were still problems on the disc. Several directories were broken and trying to read some files resulted in the computer hanging. But all my email was intact and I could recover everything that I had lost. Relieved at this, I was almost ready to reformat the disc and get back to the other RISC OS projects I had been working on but I saw a newsgroup posting from someone else with a 'disc not understood error' and wrote to them saying that I had a program which could make the disc accessible again. It then occurred to me, that I should finish the job and turn my program in to a fully-fledged disc repair tool, which could repair the map and the directories.

Spurious errors

A problem with writing a disc repair tool is getting hold of both good and faulty discs to test it on, so you can be sure it will find and repair all the possible problems on the faulty ones and not come up with spurious errors on the good ones. Right from the beginning, I decided it would be

unwise to send people early copies of my program to play with, when any mistakes in it or its use could result in even more damage to their discs. So I developed a way of making the discs come to me. By sending out a read only version of the program, it would check the disc and also write out all the important information such as the boot block, map and directories to a file, which could be emailed to me. I could then take this file and feed it to the full version of my program, to try out fixing operations again and again without risking anybody's valuable files.

My system also allowed me to generate files containing the original and fixed version of just the faulty parts of the disc so, when I was happy the program was working, I could send it back to the testers. The testers would then use the fixing data to repair the disc and the original data to restore it again if the repair wasn't initially successful.

After I had put this mechanism in place, I began writing code to check and repair all the fields in first the boot block, then the map and finally the directories. The hard part of

developing a program such as this is not working out whether the data is correct or not but trying to decide if what you are looking at is damaged data or just complete junk.

If you find what looks like junk in any place, it may be that what you are looking at is corrupt, or the thing that has lead you there was corrupt and you are not looking in the right place. You have to follow the chain of data which leads you from the disc record to the map, from the map to the directories, the directories back to the map and then finally to the files.

Clues

At each stage there are clues that you may be on the right track and allow you to find vital information despite the direct link being lost. While writing the code I continued looking out for more people with disc problems asking for help on the newsgroups and The ARM Club help service. Each time they would send me data and I would find there was yet another way of things going wrong that I hadn't considered possible. At times I thought I'd never complete it as, for each step forward, I'd find another five still to do.

I thought the map might take most of the time to do but on getting to the directories I found there was far more work and I'd have to do everything twice. The reason for this is that the boot block and map are essentially the same for both formats, with the E+ map just being a logical extension to E to allow more and smaller objects on the disc to be described (to reduce the amount wasted). But the directories are completely different.

The old format is a fixed size holding up to 77 entries, each with a maximum of 10 characters for the filename. The new format must be able to deal with a variable number of files up to over 80,000 with names up to 255 characters. Every routine which checked, added or removed files had to have two versions, with the new format ones being much more complicated as the names are held in a variable size heap rather than simple array structure. The more complicated something is the many more ways it can go wrong.

Working on this during the evenings and weekends was proving to be slow progress, I needed to find some more time, so decided to utilise lunchtimes

and any slack time at work (don't tell my boss though!). Unfortunately unlike my previous job, my current work place doesn't use RISC OS machines, only PC's. But because my program works from the command line, is written in C and mainly works from the files containing disc information during testing, it was quite simple to port it. I only needed to write a small number of routines to do the equivalent of the OSLib calls to run it on the PC. I hate to say this but running it on the PC helped development enormously as I was able to use the much better debugging tools. Hopefully RISC OS equivalents are now on the way.

After four months of hard work, I had *FileCoreFixer*, as the program was then unimaginatively titled, ready for beta release to a larger number of testers. However, this coincided with my then much needed driving holiday in Ireland, again with fellow ARM Club committee members, Mark, Tom, Matt and Simon. I had the announcement ready to send to the newsgroups before I left and instructed Matt to bring his A4 and Simon to bring his PC laptop, just in case anyone sent me anything I

needed to look at while away. However once we were there driving round the beautiful scenery of County Kerry and County Clare and enjoying the craic in pubs from Waterford to Galway, we decided to abandon any thought of work. All except Simon who we had to drag away from his laptop every morning, protesting about his life threateningly important accountancy emails from PricewaterhouseCoopers.

When I got back the pressure was on, as it was only five weeks to the RISC OS 2000 show where I intended to launch the program.

Before even cleaning the considerable amount of dirt off the car, accumulated from a weeks driving through Irish countryside, I announced the start of formal beta testing. This led to the recruitment of another 20 testers, with a wide variety of problems with both E and E+ discs.

Immediately I started receiving large disc images to be checked and fixed. At this stage the task of writing easy to follow documentation, to allow people who were not familiar with the concepts to use the program, was

more work than the changes needed to the software.

There are also many additional things to do to turn a program into a product. I managed to grab some time to discuss it with the rest of the Committee after a RISC OS 2000 Show co-ordinators meeting. The first thing which came up was the name. I quite liked FileCoreFixer —functional and to the point—but it was decided that something more dynamic and punchy was required. *DiscKnight* was suggested. I hated it at first but with the lack of any other suggestions it stuck. We then needed to come up with a logo, to be used by the program as an icon and in designs for fliers and posters.

With everyone being busy with organising various aspects of the Show, including myself, it was clear I'd have to start the ball rolling. I quickly knocked up a black and white design featuring a rough approximation to a Knight's helmet (not a motorcycle crash hat!) and shield. I thought it would spur the others into criticising it and coming up with a better design but, unfortunately, they liked it. With no

sign of a poster appearing by magic, I again put the forces of good software and shockingly bad design towards making one myself, which hopefully would at least be eye catching. Again nobody came up with an alternative so I was stuck with that too!

We also had to decide how to price it. For a program of this complexity, which had taken five months of near constant work, a price of £30 would be needed to recoup a fraction of the development time — if it was for the PC it would be at least 10x that amount.

However, I felt that the people who really need the program were those who had just bought RISC OS 4. After paying £120 for RISC OS 4, the last thing they would want to do was spend another large sum on something many people thought should be included with the operating system. Therefore, I decided that it would be better to price low, at just £10 (£9 *to members*), so that everyone could afford to buy a copy.

It would also encourage people to buy before any serious corruption occurred as the last thing you want to

**BROKEN DIRECTORY
MAP INCONSISTENT
DISC NOT UNDERSTOOD**



IS YOUR DATA SAFE?

**You need the reassurance of DiscKnight
Checks and repairs E & E+ format discs**

ONLY

The **ARM**
Club

£10
£9 to members



do, should the worse thing happen to your disc, is wait for several days for the product to be sent to you.

With a week to go before the Show I decided to release the free checking only version of the DiscKnight on the website for people to download and get a bit of advanced publicity by announcing this on the newsgroups. It had been suggested that people would prefer to use it from the desktop rather than have to type things in at the command line so I dug out a program I wrote back in 1990 called !ComndCTRL. It allows command line programs to be run from icons on the icon bar, with extra parameters being selected from menus.

However as soon as people saw it I got a negative response. Some found the menus and extra options offered by the underlying !ComndCTRL application confusing, which was entirely justified, but others complained that the menu was the wrong height above the icon bar. This is why I hate writing user interfaces; no matter how important the main role of the program is, or however well it works, people will vehemently complain about the smallest aspect of

the user interface and this criticism can do a lot of damage to the product. (Incidentally, the menu height above the icon bar was completely out of my control, as it was written using Acorn's standard RISC_OSLib library).

Pitfalls

With just four days remaining I decided that for reasons of usability (and to silence the whingers) that I would write a dedicated front end. It's been quite a while since I last did any work with the Toolbox user interface components and I was a bit rusty. If there were any pitfalls to catch the unwary and the rushed, I fell into them. A number of times I added code to handle an event from the dialog box and found nothing happened when I ran it. Only after scrutinising the new code would I discover I'd just forgotten to register the event, so toolbox was never calling me.

So I ended up having to take the Friday off work for a mammoth early morning coding session and finished it just before 4pm. This was the latest I could leave it before having to set off to the Show, because I had the all the kit for The ARM Club stand to

take with me and it needed to be set up that night.

It took four hours to do the normally two hour journey from Gloucester to Epsom, mainly due to the heavy rain and a near stationary M25 on a Friday night.

Soaked

My main task after delivering the stand equipment was to collect the DiscKnight product packs from Matt and Ralph. This involved a dash across the car park to unload the car and getting soaked. They also delivered the posters that unfortunately hadn't come out too well. Apparently the bitmap picture embedded Artworks file wouldn't print on the A3 postscript printer and had to be photographically enlarged from an A4 copy. So the dark colours in the picture didn't reproduce at all well. After getting the stand ready and grabbing the traditional set-up night meal at Pizza Hut, we headed back to our base for the weekend at Mark's flat. It was well after 11pm by the time we had driven back from Epsom through the awful conditions due to another torrential downpour. Because I had only finished the front end that

day, all the copies of DiscKnight which we produced prior to the Show had to be updated with the new code, which took until almost 2am.

It was an early start the next morning to make sure everything was prepared for the Show opening. I had to ensure the minibuses were ready with timetables and signs for the windows and the Red Cross volunteer had to be present before any visitors could enter the venue. I also rearranged the two projectors we had in the theatre this year, so the presenter didn't have to struggle to look at the screen behind where he stood, which was a problem the previous year. So I finally made it up to the stand about five minutes before opening and put a copy of DiscKnight on the computer so it could be demonstrated. I double clicked on it and – *an error!* – I had forgotten to ensure that all the toolbox modules needed were loaded by the program.

A very easy thing to fix but it had to be changed on more than 70 copies with visitors already starting to come through the doors. Using a Formula One pit crew approach (or gross over manning not seen since the days of

British Leyand), with one person to take the disc out of the wallet and put it in the drive, another to click the mouse and a third to put it back in the wallet, we managed to get through them quickly and still deal with customers coming to the stand.

Time flew by, attending to the normal ARM Club business of taking membership renewals and offering help and advice, as well as explaining and demonstrating DiscKnight to people. By lunchtime we had completely sold out of the copies we had brought with us, so I had to run off to Office world in Epsom town to get some more labels and inlays. We then had to make copies to order on the stand, selling around 100 copies by the end of the day.

The Saturday night of the Show is when we arrange a meal for all the people who have helped in the organisation of it. This year as well as ARM Club Committee members, past and present, we had representatives from SASAUG (Surrey and Sussex) and ROUGOL (London) local user groups. With this year's Show already proving to be another mammoth success, the stress of six months of

organising work soon melted away as the wine flowed. I couldn't let the wine flow too much though, as I knew I still had work to do when I got back. Arriving at the flat after midnight, I had to get straight down to making another hundred odd copies of DiscKnight to sell the next day. I soon got into the rhythm of copying the software on to the disc, triggering the serial numbering program, taking the disc out and writing the serial number down as the next disc was copying. Only occasionally during the early hours did I find myself with a disc in each hand and no idea what I was doing! By 2am I had got through our stock of preformatted discs and had to start formatting new ones, this really was tedious and time consuming so I managed to get through only another 20 by 3am -- time to call it a night.

After what felt like only three hours sleep but was probably at least 3½, it was time for another early start to the racecourse. Although I had created a stock of discs, they were lacking any labels and inserts for the wallets. With Mark's inkjet being up the spout decorating everything with zebra stripes, we had to go round the Show looking for other exhibitors with

printers who were willing to help. CJE on the stand next door made the first offer and poked a cable through the partition to connect up to our machine. But the computer and printer obviously detecting we were in a rush refused to agree on the paper size, making everything come out scaled to A2 on an A4 sheet. Starting to get desperate, we managed to borrow Surftec's laser and take it to our stand to print the inserts, while I took over part of WSS's stand to print and guillotine the labels. My thanks again to all those concerned, it really shows the friendliness and co-operation in the RISC OS market.

That morning I was rostered to look after the theatre, which should have afforded some much needed rest between presentations, but I kept being called back upstairs to the stand to answer DiscKnight enquires. The first was from Andrew Rawsley of R-Comp who bought three copies and found one of them to be blank when he checked them back on his stand. I had been worried that I might have missed the odd one the night before, when my concentration had been broken by one of our house guests seeking advice on some rather bizarre

problems. But a quick check revealed all the other discs did contain a copy of DiscKnight and I'm sure people would have complained by now if there had been any more!

By the end of the afternoon, it was only the Show atmosphere and enthusiasm of the visitors that kept me in the upright position. As the last visitor left and the stands started to be dismantled I couldn't help taking a moment to feel proud that I had helped organise, show and bring to market a product that filled a much needed hole in the RISC OS tool set. More than 20 hard discs had already been successfully repaired and another 200 people could now feel more confident using the new long filename format. Hopefully a few more sales of RISC OS 4 will come out of it too. I'm not sure how long the feeling will last now I am committed to giving free email and telephone support for the rest of my life but at least I'll always know that there are other RISC OS users out there!

DiscKnight is available to members, from the Club's usual address, at the reduced price of £9.

Around The Clubs

The Surrey & Sussex Acorn User Group

Reporter: John Sawyer

The Surrey and Sussex Acorn User Group (SASAUG) was formed in 1996, the leading force being Stuart

manufacturers and the stalwarts of the industry playing an important role. In our area these include key dealers and developers such as CJE Micros and iSV products, who play an important role in sustaining interest in the RISC OS platform.

John Sawyer, Chairman of The Surrey and Sussex Acorn User Group, reports on its activities and we hear the Christian Acorn User Group's plans from Colin Randall.

Bell who was the first Chairman. Stuart was in charge of Horsham Methodist Church and this led to us using the church hall for our meetings.

Stuart served as Chairman for around 18 months, after which I took over. The timing could have been better since it shortly preceded 'Black Thursday'. For user groups this was a double edged sword. Interest in the platform would inevitably suffer but the need for user groups to support Acorn users became even more important. The phoenix of Acorn has risen in the form of Castle, with other new RISC OS computer

SASAUG played a big part in organising and running the hugely successful RISC OS 2000 show at Epsom. You may have seen one of our members on the SASAUG stand demonstrating his video editing suite based on Irlam's Videodesk.

The Group is helping to sustain interest by having leading players in the RISC OS world present the latest products and news to members at its meetings. Speakers come from suppliers of hardware and software, dealers, other clubs, magazine publishers and from among our own members, offering something for everyone. Members vary from

experts to beginners, the former aiding newcomers to get the most from their computers. The 2001 programme looks more exciting than ever, details being as follows:

SASAUG Diary 2001

February 12: Neil Farnham-Smith of Surftec. CompactFlash and SmartMedia for RISC OS.

March 12: Dave Holden of APDL. Demonstration of the new Omega machine.

April 9: Chris Evans of CJE Micros. The Viewfinder card and news of a new Internet initiative.

May 14: Chris Mercier of Printmaker. Specialist printing uses of RISC OS machines.

June 11: Aaron Timbrell of iSV. New products and special offers on software.

July 9: Chris Hornby of Photodesk. Digital cameras, photoreal printer drivers and other RISC OS products.

Come along and join one of the South's leading user groups. We meet on the second Monday of the month at the Methodist church hall in London road, Horsham.

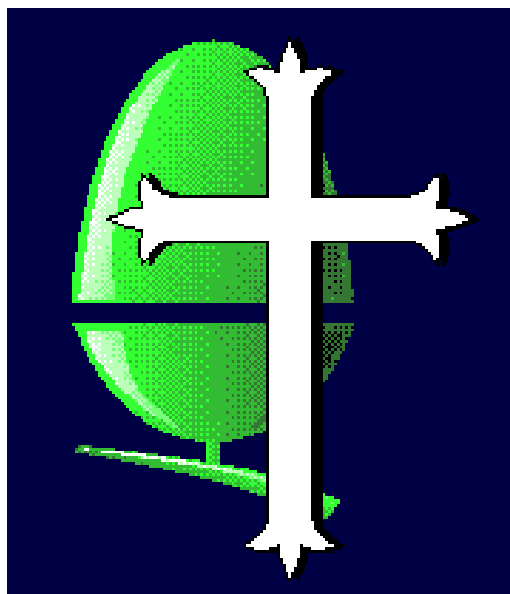
Maps are available on our website at www.poppyfieds.net/sasaug/. You can contact me on 01903 260666 or at jmsawer@argonet.co.uk.

The Christian Acorn User Group **Reporter: Colin Randall**

Although the group may seem to have gone very quiet, things are happening in the background which we hope will see the light of day soon.

Andy McMullon is working on the new Common Worship liturgical material and this will form an upgrade to the existing Acorn Liturgy Suite.

I am working on a major hymn resource called *Acorn Hymn Book*, which has been several years in gestation (I do have parishes to look after!). It is a HolyBible Resource, which has hymns tagged to Bible passages, and includes the full texts of nearly 1500 hymns and worship



songs. Others have first line, author, and source information and many have the metre and tune.

Of the full hymn texts many are public domain but we have also secured licences from: Oxford University Press, Make Way Music, Timothy Dudley-Smith, Stainer & Bell Ltd, Jubilate Hymns and CopyCare Ltd. Sadly, despite pressure, we have not secured a licence with Thankyou Music.

Hymn books cross-referenced include Mission Praise, Common Praise, Songs of Fellowship, Hymns for Today's Church, Ancient & Modern New Standard Edition, Hymns & Psalms, Rejoice and Sing and many more. The total number of hymns listed is over 4000.

This should be a major resource of value to many people and will retail for about £25-£30.

If you need to contact the Christian Acorn User Group then please note that I have a new email address:
carandall@freeuk.com

My postal address is:
The Vicarage
Warwick Bridge
Carlisle CA4 8RF

Send a report

Are you a member of a local club or user group? Other members of The ARM Club living in your area may be interested in joining.

Let everyone know about it by sending a report of your club or group's activities and contact details for inclusion in our Around The Clubs feature.

Email it to the Editor at: eureka@armclub.org.uk or post it to the usual address in the Club Contacts on page 80.

HyperStudio

Installation is straightforward if you read the seven page leaflet that comes with it. HyperStudio is a large application and requires two installation floppy discs and the CD-Rom to get it started. It is quite a

feel. You almost expect Randolph Scott to step off the page and say "Howde Pard". This is no doubt from its American Apple Mac roots. The content is useful and informative but still includes the miss-spelt

Christopher Jarman looks at the latest version of a huge multimedia tool to make CD style projects, intended for use by all from schoolchildren to professional designers.

complicated package never mind what it says on the box.

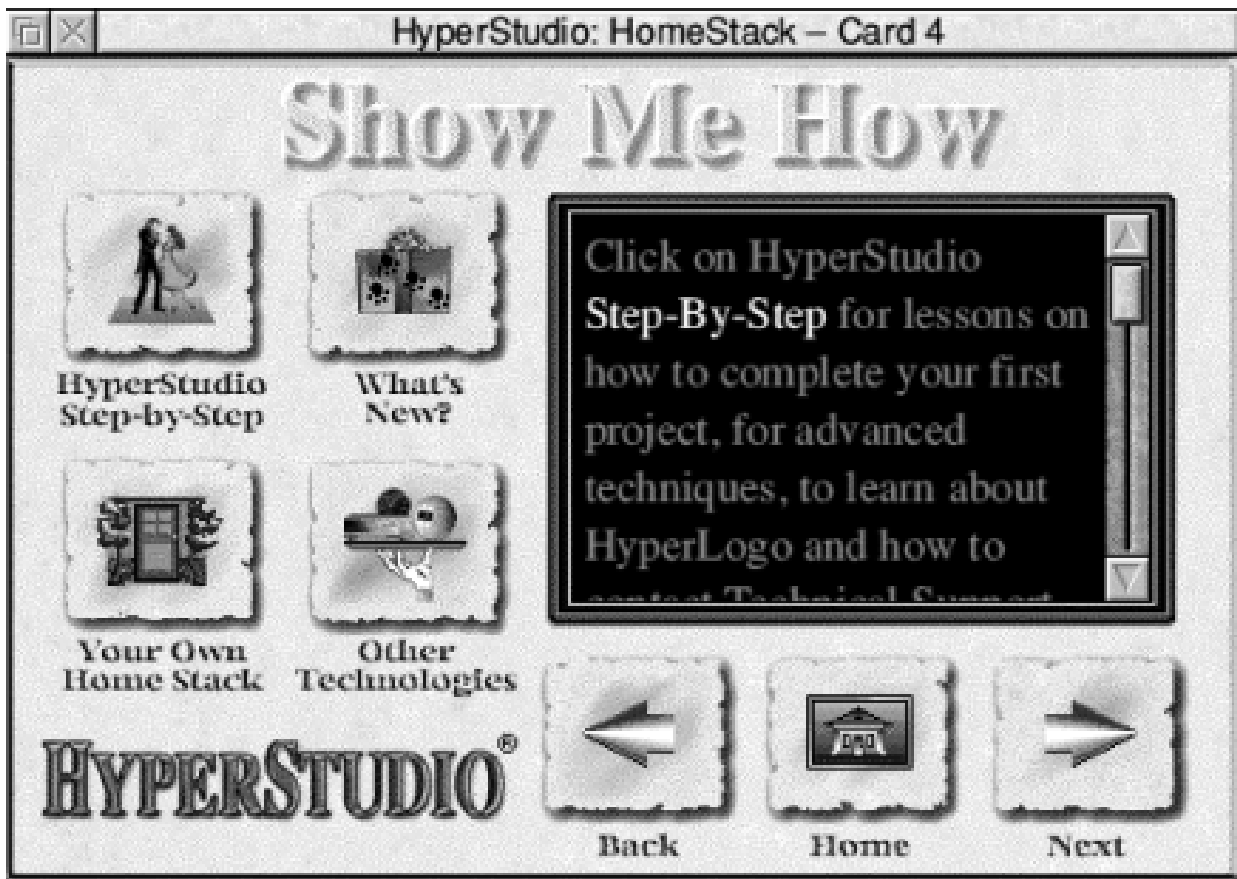
When installed you then have to fill in your special number and name. Finally you get a welcome screen which gives access to chapters called *Sample Projects*, *Show me How*, *Sharing and Showing* and a *Media Library*, that is if you have done the full install. These are all helpful tutorials or 'Stacks' but written and presented in a very transatlantic style.

The design graphics could be described as early Hollywood Western with little crinkly edged parchment sheets and blocky font which gives it a cosy 1950's sort of

possessive *it's* which is all too common now, and rather unprofessional in an educational program. Even Robin Williams that great American Book Designer gets angry with that one, so I know it is not a North American usage.

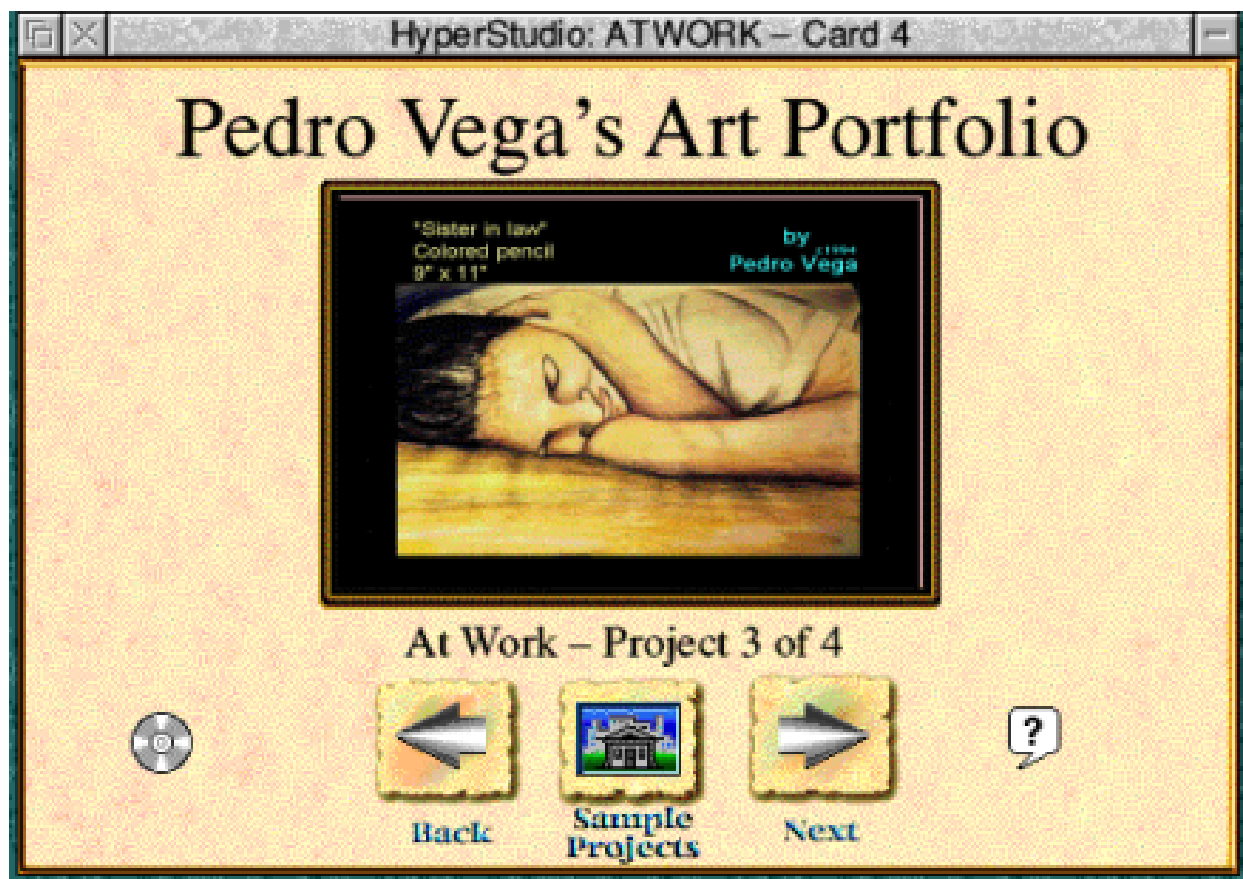
My previous version of HyperStudio was V 1.102 (1996) so with this version standing at v 3.07, I was expecting some considerable improvements.

First impressions are notoriously unreliable and so I have spent some time getting into this new copy of HyperStudio to be fair in my assessment. However, apart from



some genuine improvements which I will mention, it seems to me the same rather alien and circuitous application that I knew before. It just does not look or feel or act like a RISC OS program. This is not necessarily a bad thing but one does get used to all the short cuts which RISC OS itself is designed for and with HyperStudio it does not work like that. It seems always to take a hammer to crack a nut. The nearest application in function to compare it with today is Textease Multimedia and there is, well, simply no comparison. Textease wins hands down.

To be positive, the kit comes with quite a lot of resources. It contains some excellent tutorials and examples of projects by schoolchildren of all ages. There are some good examples by professional multimedia experts too, which give a good idea of the breadth of possibilities with this program. There are at least 50 ready-made animations and an uncountable number of handy bits of clip art suitable for classroom and project use. There are five Replay movies, over 200 photographs of all kinds, more than 100 sound files that include effects and music. Also we are given



The title card for an artist's portfolio

10 rather good character font sets which install easily into your own font file.

To get one of these clip files onto a page or 'card' in HyperStudio 3.07 you drag the icon to the card's white blank window but, instead of it arriving on the page, another window pops up with a menu asking what you want to do with it. Do you want to load it as background, as a graphic item or as clip art? When you have decided that, you click OK and then

yet another window pops up asking more questions; such as do you want the picture stretched to fit?

An excellent feature is that you can cut out any shape you wish from a sprite to drop onto the page. This could prove very useful.

Finally, you get to see the picture on the card. Any graphic file you use, incidentally, has to be an Acorn sprite or a Draw or Artworks file or you get nothing. It is possible to drop a JPEG

into Draw and then import it as 'wrapped up' in a Draw file but in this century I call that unnecessary. GIF files will have to be changed to sprites using Intergif or ImageFS. In the meantime your friend at the next desk using Textease has filled her page with sprites JPEGs, BMPs, TIFFs animated GIFs, WAV files, Animator films and the rest, and is resizing them all like fury...

Working HyperStudio is rather like working the earliest form of Windows 3.1 multimedia stuff from a magazine cover CD. The maximum colour palette is 256 by the way. You may call me impatient but the world has moved on, even the Acorn world.

Well, does it do what it says on the box? Yes of course it does. You can put together any number of multimedia shows using linked pages with live buttons to play music and to show films. Does it make it easy to do these things? Well, although it claims to be simple on the box, it seems awfully heavy-handed to me.

Maybe someone who has been in Outer Mongolia for five years and never seen a multimedia program

would be amazed by what it can do. They would certainly be astonished by the two heavy manuals and the introduction to the HyperStudio code.

Now, for the kind of geek who likes learning new codes and solving crosswords etc I would certainly recommend it. There may be many such in The ARM Club who would love HyperStudio for these very qualities. The little movie that comes with the bit about Multimedia is very American in its oversell of the educational advantages. It is also showing its age now, with talk of the 'next' century and the ladies wearing Alice bands!

"Anyways" as they say on NYPD Blue, let's try making a 'Stack', which is what Hyper calls a set of cards linked together. To write a title or any other form of text you select the 'T' for text on the tool bar at the side of the card. You then click on the card and get a caret and type in your words. You get the default style which is 12 point Trinity. It is not possible to change that once you have typed it; you would have to erase it then go into the options menu and choose text style in advance, then back to 'T' and



A school project

then start typing. If your words are in the wrong position you can capture them with a rectangle tool and move the sentence about to reposition it, which is good. To resize it though, you must erase and start again. This is nothing like the intuitive mouse control of both Textease and most of the modern PC Windows multimedia programs. Frankly, I found getting the text I wanted in the style I preferred quite the most difficult part of the whole process. It is irritatingly complicated.

Oh dear, I am trying to be positive about this program but one cannot help comparing it with others that are a lot easier to manage and which contain more features... I mentioned the improvements. Well the acceptance of Artworks files is one of them and there is a new animation system which will work with animated GIFs and Complete Animator films. It is possible to make your own animations too.

If you enjoy a challenge, then I would say "Go for it". But I could not class this multimedia program as intuitive. There is a whacky learning curve for those not used to HyperStudio.

HyperStudio

Price: £99.95 + postage and VAT
Supplier: TAG Developments Ltd
25 Pelham Road
Gravesend, Kent DA11 0HU
Tel: 01474 537886
Fax: 01474 332667
Email: sales@tagdev.co.uk
Web: www.tagdev.co.uk

ViewFinder Revisited

When the ViewFinder was first launched, I was extremely impressed by the feat of integrating an external graphics card into the RISC OS system and the greatly enhanced resolutions and refresh rates that it offered. My only criticism was the

and rectangle filling. Using the onboard processor on the graphics card, these operations could be performed up to 20x faster than a StrongARM can when using VIDC. This was very beneficial to the desktop use, as moving or scrolling a

David Ruck takes a second look at the ViewFinder graphics card (originally reviewed in issue 35) and likes its transformed version even more.

reduction in speed on the desktop, especially coming after the improvements that the RISC OS 4 and Kinetic upgrades had given me. ViewFinder was a step backwards in that respect. But John Kortink, creator of ViewFinder had promised us that the acceleration features of the graphics would be utilised in future versions to enhance performance. I am pleased to say he has tirelessly been bringing us enhancements, on an almost weekly basis over the past five months and ViewFinder is now transformed.

The first major improvement was to use acceleration for block copying

window involves block copying either the entire window for a move or part of the work area for a copy. The newly scrolled area of any window is then usually cleared with a rectangle fill before the contents are redrawn. Windows now glided effortlessly across the desktop and scroll bars zipped along.

The next area for improvement was to use the graphics cards accelerated routines to draw all the VDU graphics primitives, instead of the processor having to do it. The primitives include lines, triangles, rectangles, circles and segments. This was a harder task than John expected due to RISC OS and



The ViewFinder piggy back podule

the graphics card having different ideas about whether pixels were plotted at the end of lines or at the boundary between filled curves. It was obviously important to make sure there was no difference in as much as a single pixel. Speed increases of between 2x and 43x were achieved by this, giving incredible performance to non-desktop programs. An example of which was the first one I ever typed in from the BBC Micro User guide, which plotted random triangles on the screen.

One thing that still hampered my enjoyment of working in 32K and 16M modes was the slow redraw of desktop background and window tiling. It was especially noticeable when opening a Thump viewer on the main directory of my clip art collection. This opens a window similar to a filer display taking up the whole screen, due to the number of sub directories. I would watch as the tiles were drawn one by one across and then down the screen, followed by the folder icons appearing almost

instantly. It seemed to take hours, although in reality under two seconds, and was very annoying because I did this a lot. Many ViewFinder users had turned off window tiling and used a plain colour backdrop because of this but I was reluctant to sacrifice the superb look of the RISC OS desktop.

Caching wimp sprites

However, John came to the rescue again, with a clever method of caching wimp sprites in the memory on the graphics card not being used for the screen buffer. As the card has 8MB of memory, and even a 1600x1200 screen in 16M colours only takes 7.3MB, there is 692K left over which can be utilised.

The caching works by capturing the first sprites plotted after a mode change and holding them in memory, so if they are needed again the graphics card can plot them vastly faster than if they have to be transferred over the slow podule bus. Luckily, the way the window manager works is that the screen backdrop and window tile sprites are the first to be re-plotted on a mode change, so are cached and available for fast plotting from then on. The difference this

made was stunning, the backdrop and tiles redrew instantly and no more annoying watching of redrawing. I should point out this is as long as you are using only a small tiled sprite for the backdrop in the largest modes. If you normally use a full screen picture behind the desktop, there won't be room to cache it in 1600x1200x16M, but in 1600x1200x32K there is plenty.

The latest area John has turned his magic wand on is anti-aliased font plotting. I must say I had not noticed a significant speed penalty using fonts on ViewFinder but then I usually switch back to 256 colours for textual work. Using 16M colours modes for applications, which automatically reformat large blocks of text as you type, has always been a bit painful under VIDC too. Now John has speeded up font drawing in 16M/32K/256 colour modes by 5.6x/1.8x/1.2x, so this is smoother too.

Taking all these enhancements together, the desktop is now very slick in operation; much faster than VIDC for all but a few cases where large images are rendered on screen.

Converse to the situation when I first got ViewFinder, switching back to VIDC now seems sluggish. But these changes don't just benefit the desktop use, programs can run faster too. Because the chore of moving large blocks of memory around is removed from the main processor, it can get on with other things even when you are moving big windows around.

Another example of the benefit is when running a program in a task window which produces a lot of output. With VIDC the processor would spend most of the time scrolling the task window and only a small amount of time running the program itself. Now with ViewFinder all the processor has to do is tell the graphics card to scroll and then almost instantly get back to running the program, leading to much better performance.

Other enhancements

As well as performance there have been a few other enhancements, which have removed some of the restrictions experienced before. It is now possible to run non-desktop programs as long as they can use a numbered mode that has 16 colours or

more. This means that only programs that use the lowest resolution BBC micro modes will fail to run.

There are still a few things that I would like to see ViewFinder support, such as gamma correction so that programs that require screen calibration such as PhotoDesk and Vantage can be set up properly. I'm sure that John will be addressing this shortly. I'd also like to see a feature that makes sure that after you have run a non desktop program you don't get bumped back into the desktop still in a tiny 320x256 mode that the program has selected. Plus I would like to switch between ViewFinder modes and VIDC modes without rebooting for the small amount of software that requires it.

That brings me on to areas where the ViewFinder and certain software still has problems. Some applications such as PhotoDesk and Artworks don't display properly in 32K modes, although David Bryan has produced a patch for ArtWorks which has now solved this. PhotoDesk works fine in 16M but ArtWorks, while happy with the colour depth, doesn't like modes with lines more than 4096 byte wide,

which are any above 1024x768 at 16M colours. This means I have to use 1600x1200x16M for PhotoDesk and 1600x1200x32K for ArtWorks, which is a little annoying if using both together. The only program I have which isn't happy running with ViewFinder at all is TopModel2 and I am currently trying to find a solution to this.

Lastly there is of course the fundamental restriction of ViewFinder in the use of podule bus. That means applications which need to transfer large amounts of data to the screen, such as real-time video (although small 160x120 Replay clips work OK) and games, are unsuitable. However you can still do all things by rebooting with V held down to get back to a standard VIDC system. A dual input monitor and second video cable are invaluable if you find yourself doing this more than a couple of times.

Despite these few restrictions, in my opinion ViewFinder is one of the most useful add-ons to the Risc PC, coming second only to StrongARM. It is now so slick and well integrated into RISC OS, you don't even know it's there,

until you remember you are now working in screens of twice the size and colour depth as before. However, it has proved to be more than just a quick way to gain a higher resolution screen while waiting for a new RISC OS machine to come out. It has changed my views on what a new machine should have. I now consider graphics acceleration to be an essential requirement to get the best out of a RISC OS system.

I have set up a support mailing list for users of ViewFinder, which has proved very valuable in discussing any problems with John and also pointing new users to sources of useful information and patches. You can join from the website at www.egroups.com/group/viewfinder.

ViewFinder

Price: £235 inc VAT & UK delivery

Supplier: CJE Micro's

78 Brighton Road, Worthing,

West Sussex BN11 2EN

Tel: 01903 523222

Fax: 01903 523679

Email: sales@cje.co.uk

Web: www.cje.co.uk

WebMaster

Webmaster —what does that conjure up in your imagination? Big office overlooking the Thames, secretary, large desk — well, you'd be wrong, none of these are necessary.

adventurous you can add other pages to make it more interesting.

This article is *not* going to be a 'Web page tutorial' but more a 'give you a feel' sort of article.

Geoff Lane stops dreaming of that large desk in a riverside suite of offices with a personal secretary at hand and reveals what it's really like to be a WebMaster.

I have been managing the web pages for the Welwyn Hatfield Computer Club for more than two years now and it has been enjoyable, educational and not overly time consuming.

There are web pages and there are web pages —some ask you if you want Active-X, some bounce shapes all over the screen while you twiddle you thumbs waiting for the info to appear, some are so full of text and images that the old expression 'can't see the wood for the trees' springs to mind and some are simple but eye-catching.

It needn't take long to set up a basic page either. As you get more

There are a few things to consider; don't ask me why but people will *not* generally scroll down huge amounts of data on a page or wait too long for a page to load, they just go elsewhere. With these facts in mind it is best to keep pages simple and reasonably small, better to have two or three small pages linked than one large one.

If you view www.bigfoot.com/~whcc you will see that the main page is quite small and loads swiftly. The main delay to loading our page is sometimes experienced by the loading of the 'Guest Book link' which is in a completely different location to our own pages. Any

further information about our club is accessed via links from the main page.

Pages can be viewed on any platform regardless of what program or operating system produced them. Create on an Acorn and view on a Mac, create on a Mac and view on a PC. Edit on any system and view on any other, that is the beauty of the web.



Webmaster Geoff Lane doesn' t have this or a big desk either

Apart from images, when you view a web

page you are *not* downloading anything other than a *text* file from the other computer. A web page is a text file containing commands in angle brackets, such as `<command>` etc.

The commands tell your computer what font to use, how big to display, what colour to use and how to lay it out. Now, if you are a real *nurd* you can enter these commands by hand but, there again, if you are a *nurd* you probably will not be reading this.

The easy way is to get an up to date Web Page Editor. These are a bit like a word processor or desktop publisher in that 'what you see is what you get' or WYSIWYG as it is commonly known nowadays. Layout, links and images are all easy peasy with the modern editor.

Start easy, with Page 1. If, for example, this is a club web page a small eye-catching logo will be nice; not too big as the reader does not want



[Click here to view our main page](#)

We have much to offer for those local to Welwyn Garden City in Hertfordshire and able to visit our club premises but our pages also offer message and chat facilities to **anyone** who wishes to participate.

Internet - Programming - Family Tree - Art - Music
Social - Problem Solving - Networking

Modern comfortable club premises, ample car parking, phone line for Internet connections, canteen for lights snacks and drinks.

Learn to use the power of your computer and enjoy the benefits it can bring.

The Welwyn Hatfield Computer Club tells you what their Web site is about

to wait for ages for it to appear on the screen. Underneath give a brief explanation as to what the page is about.

Choose colours carefully —pale colours on colour backgrounds are hard to read—but colours do make a page look attractive so use bold colours for text.

If there is a lot of information to add then consider a *link* rather than a big page. A link is a completely new page and enables a structure to your layout.

It's much better to have an 'About us' link than loads of text on the main page.

Links are similar to directories in your computer filing system. You can go deeper and deeper and deeper but in general it is best to have most of the links from the main page rather than from pages already linked. This is only something to bear in mind for ease of editing rather than for any other reason.

Links do not have to be on your own site either. Why duplicate information if someone else has the same—just link to their site and use their data.

The downside is, of course, that you have no control over it. An ideal use of a link is for your location. If the site

requires that you publish an address or venue then link it to one of the many *Map* facilities so that visitors to your page can see immediately where you are.

To make your pages easy to subsequently edit consider keeping web pages, images and any other type of files in separate directories. Give your files simple names and keep them to eight characters in length. This is historical and for backward compatibility.

Provided when finally uploaded the directory names on your home page are the same as on your own computer then the links will work correctly.

Names in lower case

It is good protocol to keep names in lower case. Generally on your own computer it doesn't matter if files are upper or lower but once uploaded *mypage* and *Mypage* are different files. Many a time I have been wondering why a page is not displaying correctly only to find a rogue capital letter in the file name.

In my opinion it is a good idea to change the layout of the 'Main Page'

regularly. This at least lets visitors see that the page is being updated and cared for. Consider entering an 'Updated' date on the main page so that if a visitor returns to your page they can see immediately if there is new information to be seen.

As mentioned, this was not intended to be a tutorial on web page creation but an insight into what is required. After the initial creation time all you have to do is tweak the pages to alter text or colours, which takes very little time at all.

Creating a page

If you are interested in creating a page for yourself or an organisation in the new year then feel free to email me at send2gl@bigfoot.com or, better still, join in our regular online Tuesday IRC meets where you will be made to feel most welcome. Most of the people in this group are current or ex Acorn users.

Information on the IRC set up is available via email from me or the IRC link on the WHCC web page at www.bigfoot.com/~whcc.

Gill's Journal: Phobia

Christmas is slowly fading into a distant memory, as your hands get used to a new set of calluses and bumps from playing with your latest new technological toy, sorry — gadget. You probably worked out exactly what you wanted in August

PC World —and not because they've heard of RISC OS and know better. Whatever level of fear of technology people have, there is more to the phenomenon than just having got something go wrong on them once. I've identified a few categories of

Gill pleads for help and understanding for the Phobia sufferers needing care in the community, even if they did give you socks and hankies for Christmas.

and some of it has finally arrived! Sadly, there will have been someone you know, perhaps a member of your family, maybe a confused colleague from marketing who was far too terrified to venture into any of your favourite havens of technology to get something from your electronic Santa list. The bumper packs of socks and hankies are still being ignored in a corner...

Why is it that some people are so afraid of anything with more buttons than a fridge? Of course, some others are perfectly happy using the microwave but run screaming at the prospect of having to even walk past

technophobe. Some of these categories can probably be given care in the community and helped to get over their fear. Others are way beyond help or hope and should be handed an abacus promptly. In many ways these categories overlap and these tragic illnesses may well be linked. Scientists are researching the issue right now —please give generously —one day you, or someone you know may be afflicted by a bout of technophobia.

First and possibly the most amusing category of sufferers are the *Phobius Conspiritus*, a group of people who seem otherwise normal, until you get

them started on any subject relating to computers. At this point, they tell you that the computer deliberately loses important things. Somehow it knows what is being done to a deadline, carefully checking to remove/destroy/delete only the most important and least backed-up files. They'll move from there onto the fact that computers are the mechanisation of the anti-Christ and the amazing mathematical proof that Bill Gates is in fact the Devil incarnate, carefully information gathering, until the day when he can take over the world. Thankfully, the US government have saved us all, with the break up of Microsoft. Does that make the Americans God, or do they just think they are?

Behaviour to look out for in *Phobius Conspiritus* is random deletion of anything they don't understand, if forced to use a computer. It could have been the file that carefully scanned your brain for everything from your mother's maiden-name to the bank PIN numbers and sent them straight to Bill. Others, thankfully, prefer to chose professions where they can share their conspiracy theories at will, without having to

touch anything IBM compatible. Examples of these include taxi drivers, hairdressers and of course pub landlords.

Phobius Electricus are that interesting breed of people who appear to be afraid of electricity. Except, that is, when it's in something that was invented before they were born. Hence in the elder generation, electric lights and fridges are fine but video recorders are the spawn of Satan. Clearly something evil going on behind those flashing lights!

Meanwhile, your average *Phobius Electricus* sixth-former merrily whirls her lunch around the microwave, regardless of the technology inside but gets particularly nervous when trapped in the same room as a Pentium. A phone is OK but WAP is terrifying! If only they'd simply launched Pentiums as the next step up from your 486, a few extra people might be able to cope! And what is that scary 'intel' thing doing inside my machine — should that be allowed?!

To spot and hopefully tame a *Phobius Electricus* before they burn the house

down for being possessed by the demons in the latest digital TV, look out for certain give-away signs. Of course, the symptoms vary according to age and according to consistency but typical examples include piling everything into the washing machine but washing up by hand, because the dishwasher powder “isn’t natural.” Others will happily put timers onto their electric lights for the holidays, while the video player flashes ‘00:00’ for all eternity.

Watch out as to which clocks around the house get updated when the hour changes. Some will update a full set, because they are just clocks after all, invented before even the car was! Others, however, will update anything battery run but nothing on electricity. Still more spot that batteries are a similar idea and will only change the time on the grandfather clock! These people can be helped, so long as you are careful not to rush their therapy. Trying to accept electronics more than one at a time and without being totally confident on the last may turn these poor people into the worse case Phobius Conspiritus. Be gentle with them.

Remember, never, ever, tell a Phobius Electricus just how much of their car runs on electric circuits and particularly avoid mentioning the computer, tucked safely away there somewhere they can’t see it. Somewhere, I believe, behind the little imp that now winds the car up, so you don’t have to. The wonders of modern technology!

There are another, similar breed of technophobes, who dress their fear carefully as a love of pen and paper, trying to hide their inability to turn on the monitor as well as the computer. *Phobius Scrollus* feel no need to get the hang of technology because “There’s something nicer about pen and paper,” or even an old favourite “If it was good enough for William Shakespeare...” Have none of these people realised that Shakespeare, Milton, Keats and Wordsworth are all pushing up the daisies they used to eulogise? Computers weren’t invented at the time. Written on a computer today, ‘The Scottish Play’ would be all about devolution and in writing ‘Hamlet’ the Bard would lay himself open to being sued by a large cigar company. And, besides, what could be nicer about pen and paper

Medical Dictionary

Technical Phobias

Simplicus Mechanicus

Can only perform one computer operation at a time



Phobius Familius

Believes that anyone in the family knows all about computers



Phobius Conspititus

A fear that the computer is conspiring against them



that the ability to edit both quickly and tidily doesn't more than make up for, unless of course you get high on the ink?

Phobius Familius is another breed altogether. Generally speaking, these are intelligent, otherwise well-rounded human beings, who can work out the optimum time for microwave cooking and could, with some thought, follow the theory of relativity. However, somewhere in their family or circle of friends is someone who will forever remain labelled as 'Good with computers' regardless of the fact that their idea of turning the computer on involves re-formatting the hard drive. This someone, clueless or not, will have allowed the *Phobius Familius* to get away with asking them how to do italics at least once a week for the last 15 years.

This means that, over the course of time, the intelligent, yet strangely trusting *Phobius Familius* will allow their family member to do ridiculous things on the computer, including regular loss of all files, totally destroying the motherboard and probably even taking the machine

apart, among other such joys, simply because this person 'knows about these things.'

For our innocent technophobe, it is easier to allow this, than to bother to work out how to turn the computer off without getting the Blue Screen Of Death on each re-start. In spite of the fact that many of these people can spot the flaw in a politician's argument, work out the facts from reading the paper and cook a full Christmas dinner without burning anything.

Microsoft' s fault

These are impressive feats but somehow, the computer is too complicated. Well, technology can be pretty tricky. What can you expect when you use a computer? It must be Microsoft's fault (a reasonably logical deduction, to be fair) rather than ever being caused by your friend or family member who is, as we already know, 'good with computers.'

Not actually a technophobe but closely related, the *Simplicus Mechanicus* can only really grasp that a machine does five things. Calculators can add, subtract,

multiply, divide and give a result. Computers presumably do a similar five, or fewer things. A letter and a spreadsheet can often be seen as too much for the computer by this naive breed.

As for opening two windows and doing them at once...! On a letter, you can of course only do limited things. It can be torture to watch these people tab across three hundred times to get the address in the right place, before noticing a typing error, that means it is time to re-start from scratch. This can be followed by filling the end of the line with spaces, in order to have a right margin... it hurts to think about it!

The pain caused by watching someone open up a package like *Paint*, in order to do a line drawing, without ever managing to get the lines straight can only be compared to the agony of watching their colleague open up a *Draw* package only to create large blocks of colour by thickening the width of the lines. Unless you take into account those who type figures into spreadsheets and then get out the desk calculator to add them...

Ridiculously complicated

Phobius Complicatus is another problematic kind of technophobe. Afraid of doing anything, because it's clearly all so ridiculously complicated, these are people who think that adding *bold* will take at least half an hour extra, as the elves in the screen get their ladders out to get to the right place to add darker paint. They assume that, because they do maths slowly on paper, the poor computer needs some paper to make its calculations, or at least needs a decent amount of time. These are also the people who can be seen putting a floppy into the CD-ROM drive and then proclaiming the computer broken, or that it's for some reason decided that whatever they planned to do wasn't a good idea. These are the people that caused Charles Babbage to explain:

"On two occasions, I have been asked [by members of Parliament], 'Pray, Mr. Babbage, if you put into the machine wrong figures, will the right answers come out?' I am not able to rightly apprehend the kind of confusion of ideas that could provoke such a question."

I have to confess, it intrigues me too.

Like Phobius Familius, suffers of Phobius Complicatus would rather assume that something is terribly complicated, or can't be done, than open a manual, or click on the 'Help' button.

These poor people dare not even ask the person they know who is 'good with computers' as those people are too busy spending three days changing font colour to worry about their little problem. And it's probably going slow so that the computer can cope with the wrong figures having been put in and still produce the right answer... or something. I'm not sure that these people aren't way beyond help but a long term therapy plan might help. Conduct the research by offering care in the community to a Phobius Complicatus near you now.

Lovely people

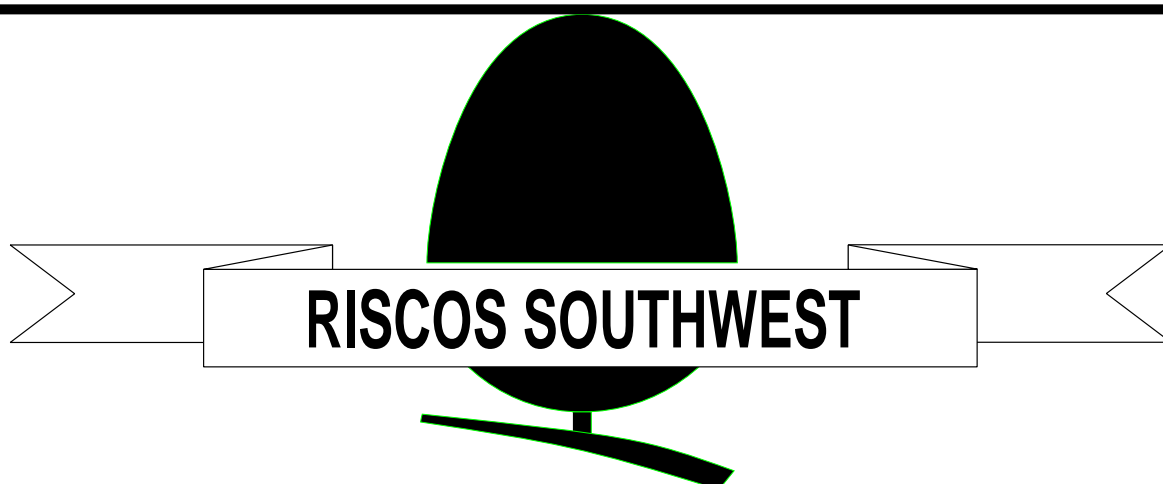
The last category are not really technophobes as such but should still be banned from any room with a network connection. *Excitius Clueless* are often lovely people, desperately keen to try out the technical capabilities of their machine and without fear in the world about jumping on in there and giving it a go.

Somehow, however, this always leads to inexplicable errors, when they really haven't touched anything they shouldn't, of course not! No, nothing that wasn't on either a floppy, a CD or the hard drive. And no, they'd never be the one who casually clicked 'yes' to download dodgy software that makes the machine crash.

There are certain people who, in spite of their keen desire to learn and unstoppable excitement at using a computer, can still blow up a CD-ROM drive, or lose the file that runs the operating system, almost from another room! How *Excitius Clueless* manage it is a matter for ongoing tests, much confusion and a straitjacket to stop them touching your machine while we're still searching for the antidote.

Please take care of the technophobe in your life... they really can't help it and medical science will one day be able to help (unless, in order to perform the surgery, the surgeon will have to use the operating theatres of the last century!)

Cartoons by Jan Pearce



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MIDLANDS RISCOS SHOW**2000**

The latest event, in December, was kindly sponsored by iSV Products and Acorn User. iSV also designed the poster while Acorn User donated space in their magazine for our advert (based on iSV's artwork).

wrong as there was no queue forming outside the doors. What was wrong?

There was a PC show on within the same building but with a different entrance. A few of us went to put up

Organiser Ralph Sillett reports on the annual Show in Birmingham which gave him some early headaches but attracted more visitors than it had in Acorn days.

A week before the show and I had a few spaces left but in the end only two spaces were not filled.

posters directing to our show and we collared quite a few people waiting in the PC queue.

A fair percentage of the exhibitors did not apply until after the Epsom show in October. I spoke to most of the exhibitors at the Epsom show to persuade them that the Midlands show was a must on their calendar and it seemed to work!

Next problem was that the mini bus hadn't turned up at the correct time. On contacting the coach company I found out that they had lost my order, needless to say that with their true customer care there was a coach in service within 90 minutes.

The day of the show started badly as my lift to the show broke down and we had to call out the AA. When we eventually arrived at the venue most of the exhibitors were setting up with great enthusiasm. I was starting to get worried that something must be

Surely nothing else could go wrong, well it didn't. I can only say that things must have got the better of me in that I didn't dot the i's and cross the t's this year as I usually do, I can only put this down to a change in jobs which seemed to take a lot of my time



initially but seems to have settled down now.

Anyway, the day proved to be a success with attendance just below 400. This is still slightly better than three years ago when the last Acorn World was held.

The show attracted visitors from as far as Newcastle Upon Tyne and Cornwall as well as exhibitors from Exeter and the South East.

The Club's stand was selling !DiscKnight very well but this time I had plenty in reserve. The Bring & Buy stall was also doing a roaring trade especially in old A3000's at a fiver each. The charity stall across the aisle was also doing very well with helpers from DARC and the SSAUG.

Those exhibitors that I had a chance to talk to were very optimistic and very busy throughout the day. Here are some of their comments:

From **Diana Rawnsley of RComp:**
"Have been going to write to you to say a big 'thank you' for all your effort in the organising of the Birmingham show. I'm afraid no-one

at the Arm Club can be held responsible for the motorway holdups, and otherwise all went as smoothly as ever. We have got so used to the super efficiency of the A C shows, it is easy to forget that these don't 'just happen'. Thank you for all your hard work in the planning and publicity.

As Birmingham shows go it was quite a good one for us. After the success of the Epsom one where people came not just from the south but from all over the UK and overseas as well, you can't expect to attract the numbers in Brum nor can they be expected to buy twice."

Ralph's comment on this is that Birmingham International airport is nearer to the venue than either Heathrow or Gatwick are to Epsom; less than 10 minutes away in fact.

From **Paul Beverley of Archive Magazine:**

"It was well organised as ever but didn't seem to be as well attended as I remember. We earned enough to pay for the trip, but not enough for that holiday in Bermuda! ;-)"

From **Chris Hornby of Photodesk Ltd:**

'I thought the show was brilliant, nice and easy to set up, and I did plenty of trade, please book me a stand for next year.'

From **David Snell, author of !ProCad:**

'The venue was excellent, with easy access and parking. Fortunately I had brought the floor plan and knew where my stand was, as almost nobody else did so we were able to set up early and recover from the journey while everyone else flapped around.'

I thought the visitor numbers were a bit low. The South West Show has more than that, I think. However we sold more on the day, which is the main thing.

Thank you for organizing it. It does keep RISC OS alive''.

From **Neil Farnham-Smith of Surftec Ltd:**

'The Midlands Show was a great success for Surftec, we walked away in profit which is the main aim for one of these shows.'

The event has great road access, you couldn't ask for more really, just turn off the motorway, wizz round a roundabout and you're there. Excellent.

Despite the bad start, co-operation between the exhibitors and the excellent remote help from you meant things where up and running quickly.'

Fortran Friends, David Crennell:

'Thank you for our free table at the Midlands show. We had a good time with lots of people interested in our various activities.'

From **Chris at Clare's supplies:** *'We found that the confusion over the other show being on meant that people were late in getting in to the show, but once they were in they were eager to talk about the products and buy, I think that many people were disappointed to find that Mico weren't there. For us we took more in sales than at the previous year's show and so again found it very worthwhile in going and will see you at next year's show.'*

Maths Keywords: Numbers & Calculations

The language of maths is one of the major stumbling blocks for those who find the subject difficult. Part of this involves understanding the meaning of the actual words used in the subject. The National Numeracy Strategy provides lists of the words

opinion, been responsible for many of the difficulties faced by students of maths in the past.

As usual with Sherston, the package is beautifully presented with clear instructions for installing the software

Di Hillage looks at some new software with definitions and illustrations to help teach the language of maths used for numbers and calculations.

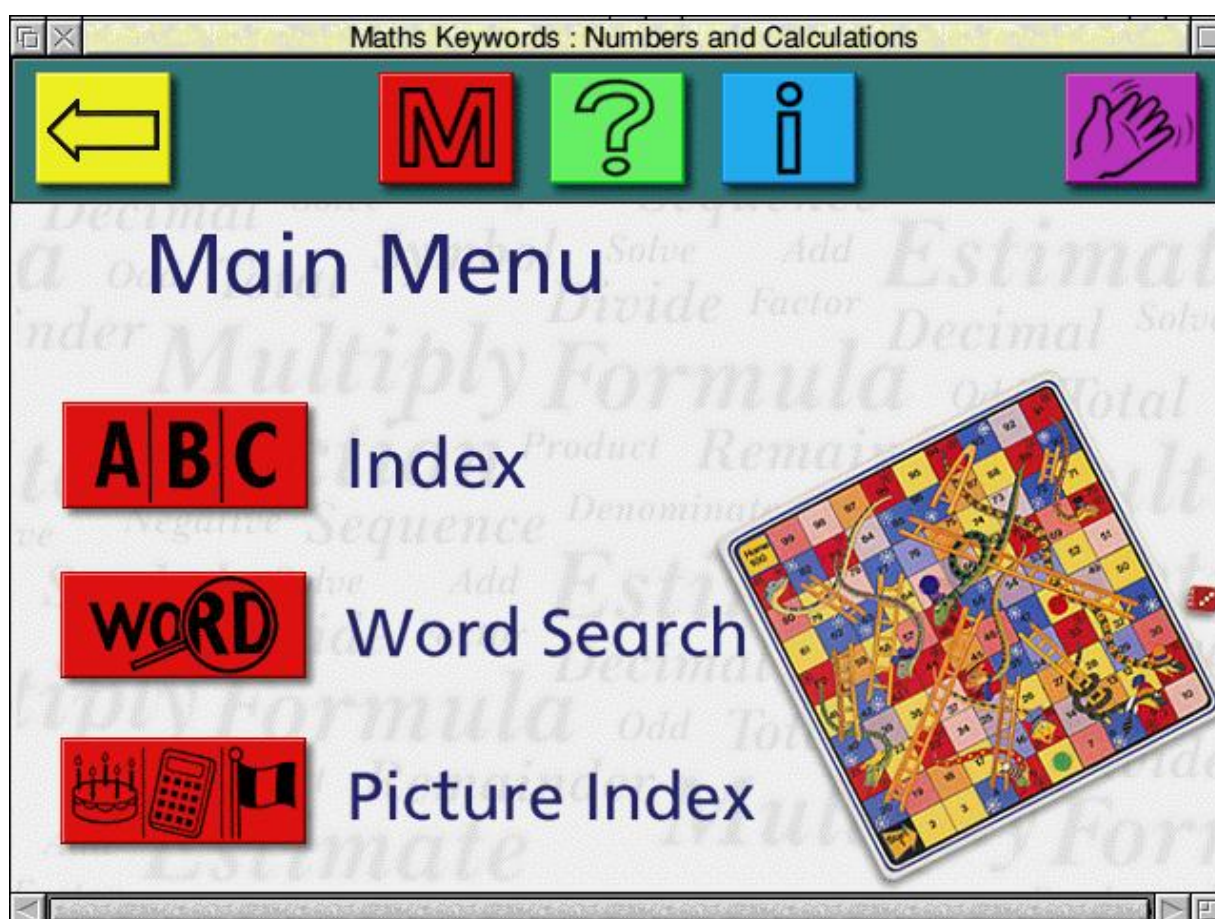
children at each stage are expected to know.

Karen Bryant-Mole has published a book giving a dictionary of many of these words and its content has been converted into this interactive CD version by Sherston. The words in this title do not match exactly with those used in the Strategy but there are not too many omissions and additions.

Understanding the words themselves is, of course, only part of the problem. Using them requires human contact and conversation, the lack of which in 'traditional' maths lessons has, in my

on each of the three platforms and for using the product once it is installed. The Main Menu is very clear, as are all the screens. It allows you to move to an alphabetic search for words or pictures or to search the database for any entries that contains the word or words of your choice.

Each word entry contains a descriptive paragraph defining the word with options to have the text read out, to highlight links to other words in the database and to relevant pictures. The top of the screen contains further icons allowing the entry to be printed or exported to another package, giving further



information about the package and more detailed help over its use.

find the title too simple and a little patronising as a result.

Searching via the picture index leads to a screen with thumbnail pictures. Clicking on one of these enlarges the picture and shows an icon leading to the associated text, which again can be read out.

Everything is very clearly presented and would be readily accessible by Key Stage 2 pupils and would be particularly suitable for those who find the subject difficult. Older and more able pupils at this stage may

Initially I found it difficult to see how this package would be used in the classroom or elsewhere. I was thinking of it in terms of its use in maths and could not envisage there being time in a class maths lesson for individuals or pairs to use it to look up a definition, nor could I imagine it being used by a child at home when the alternatives in terms of games or more active learning programs are considered. However, reminding myself of the requirements of the

whole number

Any number that does not include a fraction. It can be positive or negative. 2, 4586, -4, -756 and 65 are all whole numbers. (See also integer.)

A definition window with links to others

with separate CDs.

The package includes a poster explaining the various icons, a sheet with a Quick Start flow diagram and a list of the words in the database, which is also included in the handbook. Similar titles covering English—Words and Sentences, Science

National Curriculum for ICT and the various units in the QCA scheme of work requiring children to search large databases and use simple and complex searches made me realise how useful this would be in that context.

I would have preferred to find all the mathematical words on one CD rather than to have just the Number and Calculation section separately. With less than 200MB on the CD may be it can be extended in future. Where schools have now established a network of computers installing the software on the network is going to make it far more useful than dealing

—The Living World and the Material World provide further reference material to develop pupils' Information Handling skills.

Maths Keywords: Numbers & Calculations

Price: £29.95 +VAT

(Multi packs available)

Supplier: Sherston Software Ltd

Angel House, Sherston

Malmesbury, Wilts SN16 0LH

Tel: 01666 843200

Fax: 01666 843216

Email: sales@sherston.co.uk

Web: www.sherston.com

Coming in Eureka 38



Art, old and new, in the Art on the National Curriculum CD

Summer still seems a long way away now but Eureka's Summer issue is already being planned. The main features we hope to have in it include a full report on the exciting new Omega computer plus details of any other new RISC OS machines which may have been announced.

The reviews should include a look at the new Database which completes the Textease Studio package and we will also be examining the backup facilities offered by the latest version of Beebug's Hard Disc Companion.

Graphics users will be interested in reviews of an Art in the National Curriculum CD and an ArtWorks TextFree plug in.

That and more is all being planned for our Summer issue, to be sent to you in May 2001.

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- Joining pack includes an extra copy of a recent issue of the magazine and software.

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