EUREKA

The magazine for members of

The ARM Club

Wakefield Show

First RISC OS DVD

Broadband set-up

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EDITORIAL

A New Age

With the debut of Advantage Six's new A9 computer at Wakefield we may perhaps be heralding a new dawn in the size and functionality of home computers.

The Mac Mini has started it - a small sized computer not much bigger in surface area than a CD but still with most of the functionality of a standard sized desktop computer, but with the advantages of silent running and low power consumption. The days of the large, hot and noisy PC may be numbered.

For the average home computer owner the ability to upgrade and stuff more bits inside the computer is becoming less and less relevant. Nowadays as technology progresses at an alarming rate it is much easier to buy a new machine than go to all the trouble of upgrading your old computer, which may in any case after a few years be uneconomic or technically impossible to upgrade. Only if you are into high powered gaming or high resolution image work do you need a high powered computer. The average home computer owner does not need this. So long as they can watch DVDs, store their photos and do small scale wordprocessing and desktop publishing easily and quickly this is all that is required.

A small footprint computer like the A9home is ideal for this. Shortly even its only moving part (the hard drive) may be replacable. Solid state discs of 8G and 16G are now being produced. At last, a cheap, eco-friendly, silent, reliable computer that doesn't take up all your desk space. RISC OS is well placed to take advantage of this.

A new age of computing is upon us.

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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RISC Bytes

A9home

The A9home

Advantage 6 have announced the introduction of a new home computer called the A9 Home. It is intended as a small, tough portable, fast and relatively cheap computer rather along the lines of the Mac Mini. Its footprint is just 168mm × 103mm and is 53mm high. This is smaller than the Mac Mini but the A9home doesn't have an inbuilt DVD Rom player. This has to be purchased separately adding another £93 to the cost of £499. A keyboard and mouse are supplied but no monitor. The machine uses a Samsung ARM9 processor running at 4000Mz and also contains a graphics co-processor and power control processor. It carries 128MB SDRAM and 8MB VRAM and a hard disc of 40GB. The operating system is RISC OS Adjust32. For inputs and outputs it has four USB ports, two at the front and two at the rear. Two PS/2, one 10/100 Base T network, one RS232 serial port, a power in and an audio in and out socket. The computer also has a power/reset switch, a status/health indicator and a drive activity indicator.

At the moment the A9home is only available to developers who get £50 off when purchasing a machine. When the A9home becomes available to the general public it will be sold through CJE Micro's.

VERSION 1.27 OF ACCOUNT2 IS NOW AVAILABLE

Account2 is a freeware home accounts application that has been in constant development since January 2001, and is 32 bit safe.

It includes many features that are normally found only in commercial packages, including sub–account facilities, categories and sub–categories, unlimited number of transactions, report creation and budgeting, export and import in various CSV and QIF formats and much more.

Version 1.27 changes – Mostly bug hunting, but a few new features

A Global category change added to ''find'' facility. Items can be deleted from ''last 10 files'' and menuOption to turn category loading off when importing QIF files.

Several bugs have been cured, most notably:

Last date of linked transactions appears correctly. Printing problem of sub–accounts with inkjet and bubble jet printers solved.

A few bugs connected with Direct Debit transfers of the every ''n'' days type have been cured:

now adjusts for Leap Years: last transfer date doesn't default to 31 subcategory values can now be set.

http://www.account2.co.uk/

STUART TYRRELL DEVELOPMENTS ANNOUNCE USB DVD DRIVE

Stuart Tyrrell Developments are pleased to announce the retail release of an ultra-compact external CD/DVD drive for use with the A9 Home RISC PC, A7000, VirtualAcorn based machines and standard PCs.

Measuring a svelte 138mm x 135mm x 21mm (approx. 5.4 x 5.3 x 0.8 inches), the drive takes up little more space than a CD case, and is ideal for users who want a simple to set up, portable solution.

This product is also ideal for those people using machines with limited expansion capabilities to add optical disc support without consuming a drive bay. This would be particularly useful on machines such as the A9 Home, A7000 or a single slice RPC.

Now you can have Unipod and an optical drive in your A7000 at the same time.

The Advantage 6 USB-DVD is supplied with drivers for Unipod and the Simtec USB cards, a USB cable and a UK power supply.

Further details will be available shortly on our website:

http://www.stdevel.co.uk/products/usbdvd.html

RELEASE OF RISC OS C TOOLS

Castle Technology Ltd is pleased to announce that they have today made available release 5.6 of the RISC OS C Tools.
This new release includes fixes for all bugs reported through Castle's C support web pages and over 20 additional improvements/enhancements including the following:

PRINCIPAL IMPROVEMENTS

1. Numerous code generation improvements.
2. Improved checking of printf/scanf format strings.
3. Improved compilation of (int) longlong, (int) longlong >> 32, and long long >> 1 or << 1. Also, long long multiplication and division by powers of two transformed into shifts.
4. Optimised handling of narrow (<32 bit) data and computations.

PRINCIPAL ENHANCEMENTS

1. Added complex and imaginary number support as specified in C99 Annex G.
2. _Bool, _Complex and _Imaginary now available in pcc and C90 modes.
3. Support for switch on a long long expression.
4. Added inter-statement compile-time evaluation of long long arithmetic.
5. asm keyword recognised in C++ mode.
6. IEEE 754 conformance improved; generally edging the compiler closer to C99 Annex F.

Current C Tools subscribers can download the new version from Castle's web site.
Full information and subscription details can be found at:
http://www.iyonix.com/tools/

For up to the minute RISC OS news visit

DROBE

www.drobe.co.uk

GedcomWeb (3.05) and Prune (2.00)

GedcomWeb has been updated to include support for the type of GEDCOM files available at **www.familysearch.com**, and has had some minor improvements/bugfixes, particularly regarding its handling of dates.

Prune has had the interface redesigned to (hopefully!) make it more intuitive and easier to use.

GedcomWeb enables you to convert GEDCOM files into JavaScript family tree Web pages. Even if you don't want to display your family tree on the Web, the output is still very useful for sending to relations who may not have genealogy software, as it will work with any modern web browser on any type of computer. It also produces nice trees for printing out. GedcomWeb is shareware. All upgrades are free to registered users.

Prune is a program to cut out parts of GEDCOM files. It was originally designed for use in conjunction with GedcomWeb, to enable you to cut out living people from your family tree before publishing the information on the World Wide Web. It is also useful for pruning GEDCOM files which your relations send you, to cut out people from their tree who are no relation of yours. Prune is freeware.

IPP Device Driver

IPP Device Driver is a RISC OS device driver for IPP (Internet Printing Protocol) capable network printers and servers.

If your network printer supports PostScript, you can print directly using the RISC OS drivers. Alternatively, by printing via the free CUPS printer server, which runs under UNIX, you can use any printer, network or otherwise, supported by CUPS. This includes photo quality printers supported by the GIMP–Print drivers.

This new version contains many bug fixes, improved documentation and an installer.

You can download IPP Device Driver from,

http://www.davel.me.uk/risc

RISC OS 4.02 discontinued

Managing Director Paul Middleton explained that "it is now a year since the launch of the RISC OS 4.39 "Adjust" ROMs and coming up for6 years since the launch of RISC OS 4.02. The time has come to move on and the considerable advantages of the newer version of RISC OS 4.39 means that it is a suitable time to discontinue supply of RISC OS 4.02 ROMs." For existing stock availabilty.

emailpaul@riscos.com

Messenger Pro 3.21

A major new version of Messenger Pro 3 has been sent out By R-Comp to registered users featuring what is perhaps the single biggest change/enhancement to the software since Messenger Pro was first released back in the last century!

Messenger Pro 3.21 includes a brand new, extensively featured email/news message editor, integrated into the program, massively simplifying the process of writing and sending messages. However, what is special is that although the editor is integrated into Messenger Pro, it offers many features that even dedicated editors do not, making it a very powerful tool for the creation of emails. Some of the features include: - understanding of levels of quoted email (coloured appropriately) and the ability to wrap them intelligently; full wrapping of paragraphs in conformance with email standards; signature editor allowing users to pick quickly which signature is used for the email; check-as-you-type spell-checking, as well as check word, check from cursor, check whole message etc; list handling and auto-indentation; ability to join/wrap paragraphs; full search/replace including wildcards etc; join/wrap lines and paragraphs to cope with badly formatted emails you may have been sent; ability to choose between proportional or monospaced fonts (so that you can edit messages with whatever typeface you find most pleasing), and have the software wrap/display appropriately.

The software supports global clipboard and drag and drop for easy transfer of information to/from other applications, and allows access to all the usual mail sending features of Messenger Pro in one place. The new editor also tackles some of the bad-netiquette mistakes that many new users fall foul of - it visually indicates where the user should type their message (to avoid top-posting) and also explains the distinction between message body and signature.

Andrew Rawnsley of R-Comp commented on the new version - “This has been something we have been looking at for Messenger Pro for a long time, but given the power of external editors such as Zap and StrongEd, we were conscious that we needed something special, if it was to be worth doing. I believe that’s what we’ve got, and I have switched to it completely - I hadn’t expected to be able to say that six months ago! I’m very pleased with this new feature, which for most users will be the most significant update we’ve ever released.

www.rcomp.co.uk

RiscCAD Professional Release 9

RiscCAD Professional Release 9 is offically available from June 1st 2005.

Release 9 is the latest version of RiscCAD, the popular RISC OS 2D CAD system. Visitors to Wakefield 2005 were able to see Release 9 for the first time, and buy this latest version. Release 9 received popular support, with many people pleased to see additions to this popular CAD package, including:–

Multiple views (up to 8 views per drawing), with the ability to draw directly between views, and automatic switching of view windows when the mouse pointer enters a new window. On–the–fly snap, with dual cursor showing the tentative snap point. Isometric and oblique grids, with the ability to set the cursor angle to the grid angle, or any other angle. Isometric circle construction. Interactive help. Compatibility with SpecialFX, allowing RiscCAD to draw with anti–aliased lines. Text search facility, with drawing panned to found text. Improved patterning and filling, with faster operation and new features. Plus much more such as datum dimensions, dynamic array construction, intermediate construction display, intersection snap etc.

RiscCAD Release 9 is available for £20, and costs only £5 to upgrade from Release 8e/8f.

www.risccad.freeuk.com/

SIMON release HeadTurner

The SIMON team have announced that HeadTurner, the first independent release from the SIMON project is now available. HeadTurner is an application for the A9 that rotates the desktop to enable the use of portrait modes (with a suitable monitor). This is of particular use for working on documents and/or images which are in this aspect ratio, as it provides a much more natural view.

This is the first application released specifically for the A9home and hints at its future potential.

HeadTurner is available now to those on the developer scheme for GBP15, which includes updates, as required, to cope with the maturation of the underlying platform.

One of the project team members commented, "It's been great working with RISCOS Ltd and Advantage 6 on taking RISC OS forward and seeing our work included, but releasing our own product like this is fantastic"

mailto: *simon@advantage6.com*

Video Cam for RISC OS

Stuart Tyrrell Developments launch Video Cameras for all RISC OS machines. The video camera device, along with drivers is suitable for use with all RISC OS machines.

The IPKam will connect directly to any machine with an ethernet interface, and enables video to be viewed within the RISC OS desktop. In addition, connections may be made to devices from within a local network, or, if you wish from the internet via a suitable router.

IPKam is a single compact unit which integrates colour sensor and optics directly with a network controller to create a drop-in solution suitable for immediate use. Power supply, network cable, ceiling mounting kit, tripod, and viewing software are all provided.

Average frame rates: A6: 25fps. SA RiscPC Adjust/Unipod: 12fps

(results may vary according to network conditions etc)

Stuart Tyrrell are able to supply a range of wired/wireless networking interfaces, cables and modem/routers suitable for all machines.

Complete control and monitoring solutions for industrial, embedded an OEM applications are available from Advantage Six Ltd. Typical solutions based around A9 hardware will monitor and display video from multiple sources at 25fps.

Further information about IPKam may be found at

http://www.stdevel.co.uk/ipkam.html

http://www.advantage6.com/ipkam.html.

Last Orders

Dealer CJE Micro's says it has received its last delivery of the NiCAD rechargeable batteries used in legacy Acorn kit. The part, the Varta V280H is, according to CJE, no longer manufactured and is now a rarity.

The small aforementioned battery is fitted inside RiscPCs, A7000s, A5000s and other machines, and provides a power supply to the CMOS configuration memory and system clock electronics when the computer is switched off from the mains. It is trickle charged whilst the machine is on, although will eventually die out. With a dead battery on the motherboard, the computer will lose its CMOS memory based configuration settings every time it is switched off.

!RiscSearch (0.96)available

There's a new version (0.96) of !RiscSearch available at
www.riscsearch.de/
It contains the following changes:
Changes since V0.94:

- Added a feature to highlight the keywords in the html output file
- Fixed a 'Too many nested structures' bug
- Finally added link checker
- Program version is now part of !RiscSearch's user agent string
- Online update now gives information about recent development version of !RiscSearch available
- Changed the HTML output a little bit
- Resized some buttons
- Hugely improved the link checking facility. It's actually working now.
- Added link-check statistics to HTML output file
- Replaced ASCII Character 140, which was used to display three points in a row (...) in various circumstances, with three points ...
- Updated the manual
- Added possibility to use Acorn URI fetcher modules instead of !RiscSearch's own socket code
- Fixed possible bugs that occured when SysLog logging was enabled but SysLog was not available
- Updated !ResFind to it's most recent version
- Added a new line to the small status window, telling how many pages have been found so far and how many of them have been checked
- Improved some of the decoders

!RiscSearch is meant to be a meta search engine and queries 18 different internet search engines for your keywords. It collects all results, sorts out duplicates and presents the result in a browser window. !RiscSearch works on all versions of RISCOS from 3.5 and above.

MiniLOGO

MiniLOGO is a one-line implememtation of Turtle Graphics written in BBC BASIC. At only 250 bytes of code MiniLOGO is the smallest implementation ever to support such a comprehensive set of features.

MiniLOGO is available for download from my web-site from the following location:

http://jonripley.com/bb4w/software/MiniLogo.html

Full source code is provided and an additional Windows source and executable version is included for BBC BASIC for Windows users. An early version of MiniLOGO featured in the November 1998 issue of Acorn User Magazine. The version presented here has been significantly enhanced and many new features have been added. (The '*' command may not work as expected when running on Windows.)

Commands supported:

F <distance>	Move turtle forwards <distance>
B <distance>	Move turtle backwards <distance>
L <angle>	Turn turtle left <angle> degrees
R <angle>	Turn turtle right <angle> degrees
H	Home turtle (move to centre of screen)
P	Toggle Pen Up / Pen Down
C	Clear screen and home turtle; rest of line is ignored
X	Exit MiniLOGO
*<command>	Do *<command>
: <comment>	Short comment; can be included in compound statements | <comment> Long comment; rest of line is ignored
;	Command separator
<iterations>	Repeat command, must be first command in a line

Full documentation is included in the release archive. MiniLOGO programs can also be written in any text editor and executed using *Exec <myprogram> from the MiniLOGO prompt.

http://jonripley.com/

Message from Peter Naulls
Unix Porting Project

As some of you know, I'll soon be moving to the United States. Obviously this is going to impact the time I'm able to spend on the project. In order to maximise actual development time, I've asked among existing project subscribers for someone to take over handling of subscriptions and other UK–based project administration – something which already saps a large amount of my time.

Because of this move, the Big Ben Show in the The Netherlands on the 18th June is likely to be my last RISC OS Show for quite some time. But hopefully not for the project, pending appointment of a suitable person to represent the project at such events.

Because of this, it seems an appropriate occasion to potentially release the first beta version of the Firefox port to RISC OS. This version will be similar to that demonstrated at Wakefield, although faster and with fewer oddities.

In order to allow me to continue to justify this, and to produce further updated versions throughout the Summer, as well as initiate some other projects, I'm still after pledges. Although the response to asking for pledges has been good so far, it still falls short of what I'm after. I'm hoping that now you've seen it in action at Wakefield you'll consider doing so. Four RISC OS companies have already supported or promised to support the project. I hope too that some of the other RISC OS companies will consider joining them.

In order to give you an idea of what I'm after, I have a ''Pledge–O–Meter'', which currently stands at 41% (representing pledges so far). I'll be updating this every day until the Big Ben Show with pledges and subscriptions. If it reaches 100% before the show, then it will be available on CD on the 18th, and later for general download.

Anything over 100% will be passed onto some of the project contributors by way of thanks.

You can see the Pledge–O–Meter, details on making a pledge and more about RISC OS Firefox at **http://www.riscos.info/unix/firefox/**

STOP PRESS beta version of Firefox now released.

Acorn on Broadband

In which Andy Burgess describes his problems with broadband

My new work-from-home business required me to get broadband facilities set up. At about the same time, I got an letter from Paul Vigay indicating that Freedom2 was winding up Argonet in June 2005, and he was setting up his own broadband-capable ISP.

I decided to sign up with Paul Vigay's new Orpheus Internet. Orpheus is taking over former Argonet users when Argonet ceases to do so in June. I had always been happy with the service Paul provided previously with Freedom 2.

I needed the Broadband facility for my work and contacted Paul on the old Argonet support number. He was ready to go too, but his bank prevented him from signing anyone up as they were dragging their heels getting his account set up.

Anyway many weeks later he told me he had the facility to get me on to broadband at last.

I signed up when his bank gave the go ahead and apparently was Paul's first definite customer (ie I'd paid!)

Paul was in the throes of setting it up, when horror! our BT line suddenly died. I thought it was because I was trying to connect on an Evil Empire laptop.

I phoned BT on the Thursday lunchtime when it happened, and they told me it should be fixed by **next** Thursday!! We were now without phones or Internet - even on dial up! I phoned Paul on my mobile to ask if he'd sent any correspondence.

He told me he'd set up the broadband account and was waiting for me to connect!

Great, so now I have broadband, and I can't use it, 'cos I haven't a phone line! I was also buying my router separately, and had accidentally ordered a router

only - a NetGear WGT634U - no broadband modem was built in, though it did have facilities to drive a USB hard disc! If I connected it I would have been able to network my computers, but not connect to the internet without a separate broadband modem!

I hastily ordered a wireless router/modem - a NetGear DG834G (v2) and returned the incorrect product. I knew the DG834G would give me the wireless capability, plus broadband connection. I didn't initially buy 'microfilters' that are needed to split the phone and ADSL lines, but one was provided with the modem.

Excitedly, I plugged the router/modem to the phone line and to my A7000, and powered it up. I followed the instructions on using a web browser for setting up the NetGear hardware, and attempted it through ***!Fresco***. I'd done this (or looked at it) on client sites with PCs, and with my Orpheus welcome letter in my hand felt confident in what I was trying to attempt. ***!Fresco*** was slow in displaying the pages - but I was using an elderly A7000. I entered the details required to connect to the Internet, but ***!Fresco*** experienced difficulty in displaying some of the pages, as did ***!Oregano1*** and ***!Webster***. If you're connecting to a NetGear router for your broadband, I'd strongly suggest you set it up via a PC; not something I'd ideally want to do, but it's the best way. When it's set up then you can go back to the 'real' computer.

Lights flashed on the modem, but my installation guide said I should get a green light on my 'Internet LED'. I didn't, I got a flickering amber light. I suspected that wasn't good! I eventually found out that this meant that the router was 'ADSL training', and I thought, "Perhaps it'll learn?" It didn't - but I had to!

I was really disappointed! I moped for a while, then thought about trying another phone socket in the house. For some reason, our house has three separate BT lines, all coming out of the BT drop line. I tried the one in our bedroom, and got the flashing amber light again, but after about 20 seconds, it changed to green - the colour I'd been looking for! I connected my PC laptop to it, and it

worked! What was wrong with the one in the study? It had two wires coming into the BT socket, which apparently was normal. I got out my soldering iron, and took a bit of time investigating and then repairing my BT extension cable, so I could use the BT socket from the bedroom.

I contacted Paul Vigay, who suggested disconnecting other phone equipment from the other BT sockets. I did so, and powered up the modem again in the study. I really didn't expect anything to happen, but to my amazement, the flashing amber light changed to green, and I had broadband in the study, but no phones elsewhere in the house! I tried the Acorn on the internet. ***!Voyager*** was still loaded, so I avoided the connect button, and selected the Web Browser icon. It felt a bit funny going online without connecting. I was already online through broadband. Excitedly I entered **www.bbc.co.uk/news** in the address line of ***!Fresco***. Very quickly compared to dial up, the web page appeared, and the pictures took a few seconds to arrive. I was online! Things were certainly far faster than on dial up, and it was good to know that no matter how long I was online, I'd not be paying anything more!

As a comparison, I timed the length of time to load up the BBC news web page:
www.bbc.co.uk/news

On ***!Fresco*** on my A7000, it took 43 seconds; on Micro$oft Internet Explorer on my Pentium 4 1.3 GHz PC it took substantially less time - 5.55 seconds, but this is so-called 'state of the art' (ahem). Of course modern PC times would probably be comparable to an Iyonix, (or slower?) but I didn't have one to test it with!

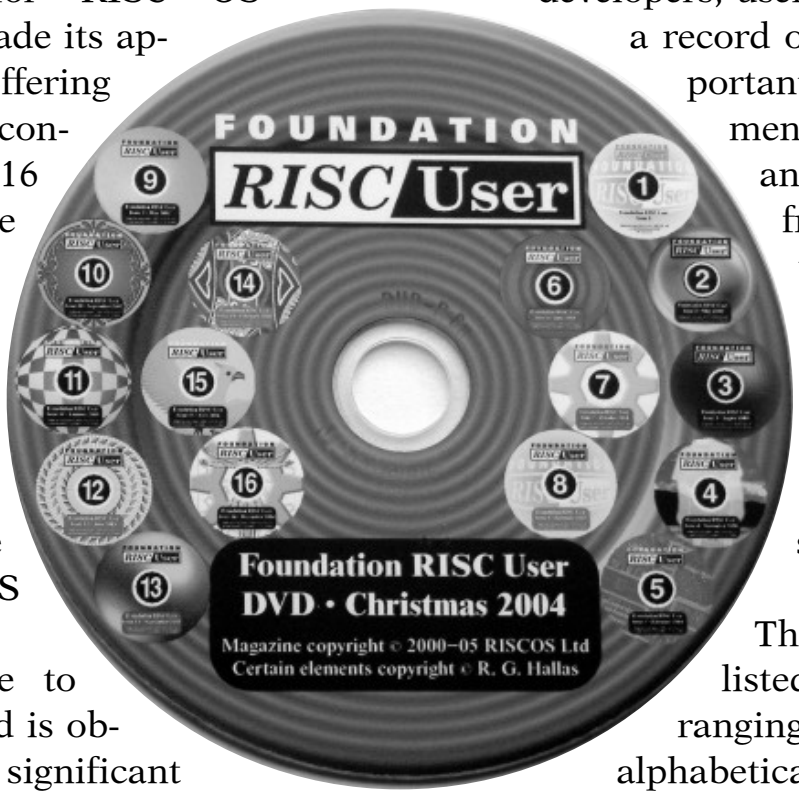
Email

I tried to use ***!Voyager's*** email facility. Absolutely no joy whatsoever! I was forced to using the WebMail facility that Paul had provided, not so good as ***!Pluto***, but one could use it on PCs. In the end, with Paul's advice, I moved to ***!POPStar***. See my 'Free for All' article for more details on setting up ***!POPStar.***

A DVD for RISC OS users

Peter Jennings looks at an innovative new DVD from The RISC OS Foundation and assesses its interest for non-members of the Foundation as well.

The first commercial DVD to be produced for RISC OS users has made its appearance, offering the entire contents of all 16 issues to date of Foundation RISC User, the CD magazine for members of The RISC OS Foundation. It's available to everyone and is obviously a significant development for RISC OS users, but does it have any real interest to non-members of the Foundation? It certainly can have. It's crammed with hundreds of articles, reviews and tutorials by about 70 different writers who are experts in every aspect of RISC OS computing. (There are even some contributions by a former Editor of Eureka but don't let that put you off. There's lots of good stuff as well!) It has a vast amount of information in a collection of databases which include products, developers, user groups and a record of all the important developments, events and shows from 2000 to the end of last year and there's a huge quantity of free software.



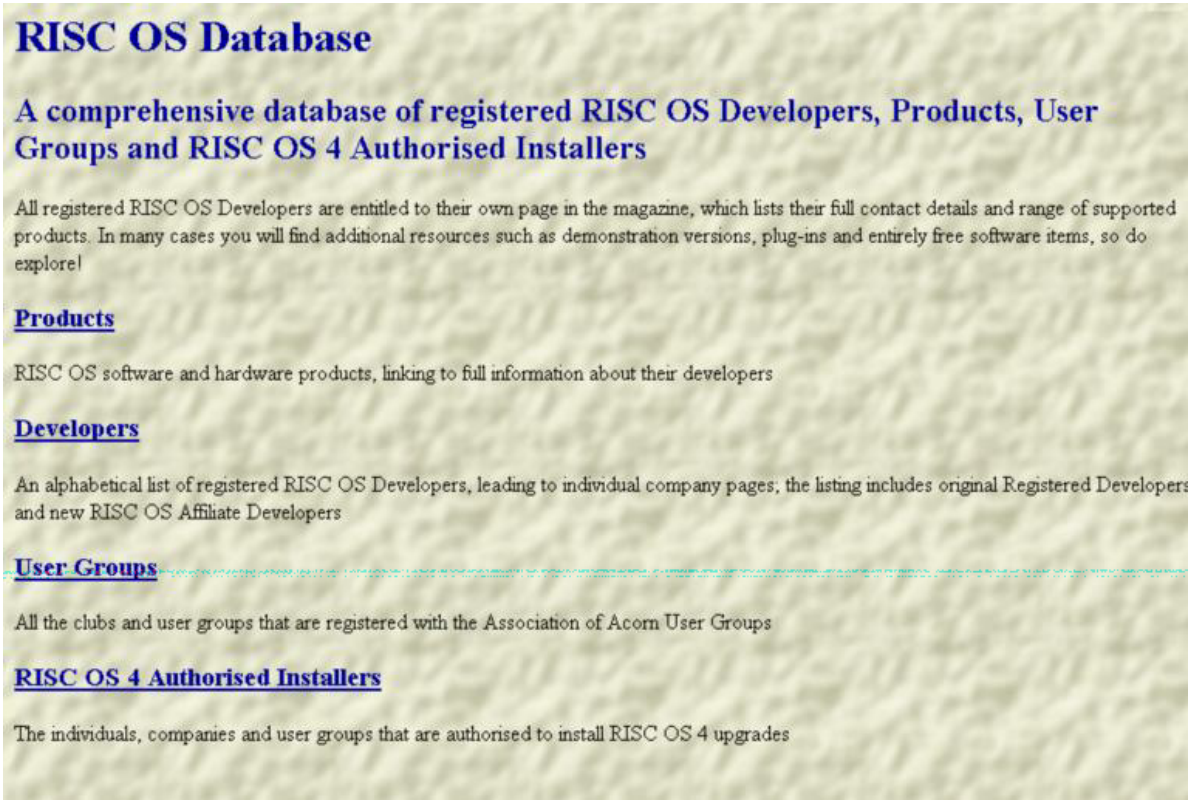
The software, listed in subjects ranging alphabetically from Astronomy to Word Processing and Desktop Publishing, alone makes the DVD well worth considering if you have a suitable reader for it. This can be a DVD drive on a PC or Mac and on certain RISC OS machines, but

unfortunately not all. RISC User's Editor, Richard Hallas, has written a guide to which RISC OS machines can run the disc, which you can read on page 21.

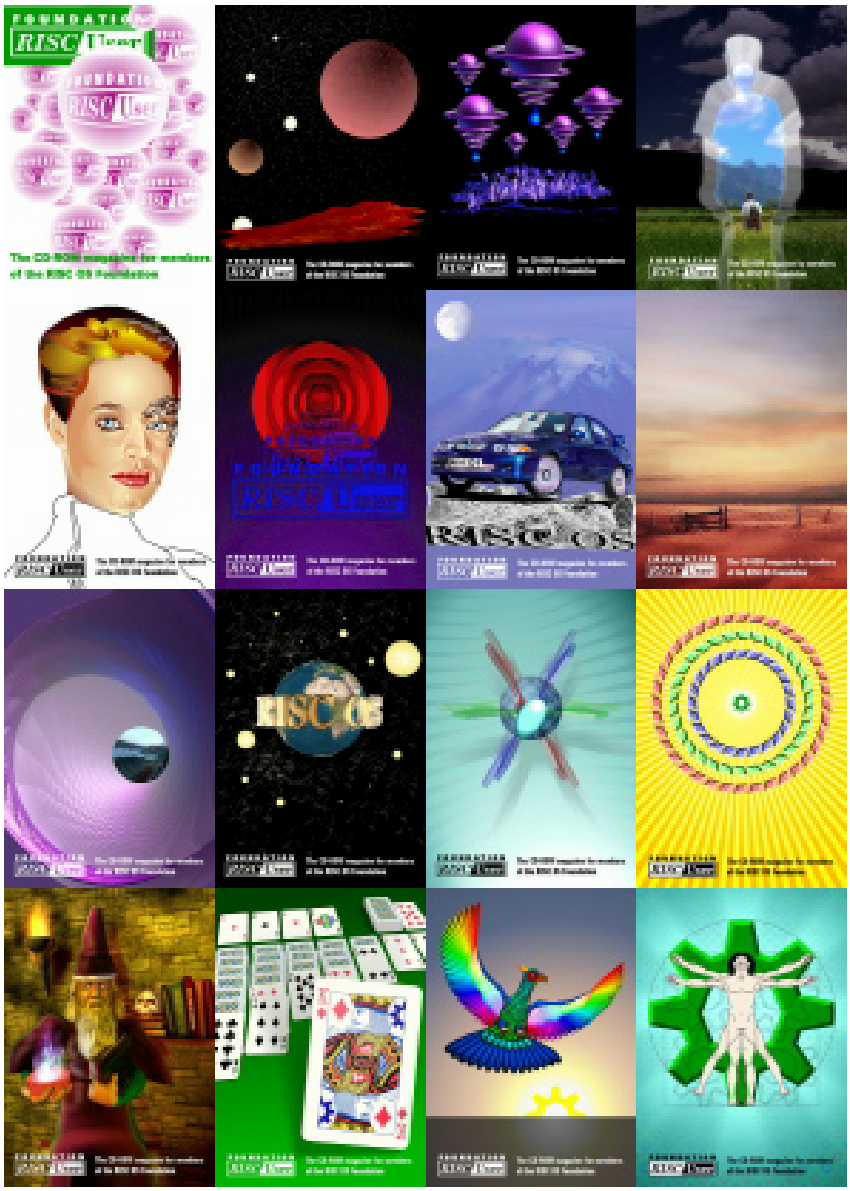
The DVD is housed in a stout black plastic case with a colourful front having a collage of the covers of all 16 of the CDs. Its format is as an HTML style magazine with every item fully indexed and cross referenced with direct links to information and software, on the disc, mentioned in the articles and reviews.

Perhaps the first thing you will want to look at is the free software and you can print off a complete listing of this (see pages 22 and 23), from the disc, sized to fit inside the DVD case. Whatever your interests, you can spend some happy hours checking up on what you've got and what you want to add to your computer. The software has been regularly upgraded so all versions are the latest available when the disc was completed at Christmas 2004.

There are actually more than just programs on the software list as it includes three complete books and two manuals.



Database subjects



Previous covers

The second edition of the late Martyn Fox's book ***A Beginner's Guide to Wimp Programming on RISC OS Computers***, which was unfinished at his death, has been completed by Richard Hallas specially for Foundation RISC User and this is 50% longer than the original version. There's also the second edition of Martyn Fox's ***First Steps in Programming RISC OS Computers***. Both books have links to allow the sample programs on the disc to be run directly from the pages. They are available in both Impression and Ovation Pro (with a sample program on the disc which can be used to run it) and in PDF format. The third book is ***ARM Assembly***

Language by Peter Cockerel, which is presented as a frame-based Website with links to printable PDF versions of each chapter. It's also in bookmarked PDF format and in a separate PDF file.

The manuals are ***StrongHelp***, version 2.85, and ***Ovation Pro Scripting Guide***, version 1.05.

Many more happy hours can also be spent reading the feature articles, reviews and tutorials. Among them there's a huge variety of subjects such as games, the internet, programming and desktop publishing which have been added to by different writers, in successive issues of the CD, to form their own libraries. So, for example, digital photography (and I must admit to a personal involvement here) has discussions and user reviews on a number of different cameras and a compilation of well illustrated topics and tutorials for digital camera users of all interests and abilities.

So, finally, what's the cost of all this? Foundation members have already received varying amounts of the contents of this DVD from the quarterly CDs which come as a benefit of their membership, so there is a range of reductions for them, based on the number of years' membership they have paid. There's also a reduced price for those with a Select subscription. Non-members can also take advantage of some special offers if they wish to join the Foundation, take out a Select subscription or buy an Adjust ROM set or a suitable DVD drive. The various prices, which all include VAT and UK postage are:

For Foundation members with the following year's membership:
1 year: £36.25
2 years: £29.20
3 years: £22.15
4 years: £15.10
5 years: £8.05.

For Select subscribers: £25.

For non-members of Foundation or Select: £43.30.

DVD + 1 year's new Foundation membership: £70.50 (saving £12)
DVD + 1 year's new Select subscription: £175 (saving £25)
DVD + Adjust ROM set: £131 (saving £27)
DVD + 16x DVD-ROM drive: £73
DVD + 16x DVD-ROM drive + Adjust ROM set: £200.

Overseas readers should contact

RISCOS Ltd for postage rates on their order.

Requirements for using the DVD on a RISC OS computer

1. A DVD drive to physically read the disc.

2. A version of RISC OS capable of supporting DVD drives. At present this means either RISC OS Select or RISC OS Adjust. RISC OS 4.0x and RISC OS 5.0x do not support DVDs.

Some Risc PCs supplied by Castle Technology included DVD drives for use as CD drives. If any such machine is upgraded with Select or Adjust, it should be able to use this DVD.

Any machine that already runs Select or Adjust, but has only a CD drive, should be able to use this DVD if it is upgraded with a DVD drive.

Ironically (given that the DVD was actually created on an Iyonix, and is compatible with it in software terms), it is not currently possible to use this DVD on an Iyonix PC because RISC OS 5 cannot read DVDs. In the future, however, this is likely to change. Once DVD-handling capabilities have been added (either by a future RISC OS upgrade or via the forthcoming third-party Cino product), the FRU DVD will work very nicely on the Iyonix.

If you wish to use the Foundation RISC User DVD but do not want to upgrade your computer, or you have an Iyonix, there are still other alternatives. If your computer is on a network with a PC or Mac, and you are prepared to devote 1GB of hard drive space to the magazine, you can simply copy the entire contents of the DVD across your network and then run it locally from your RISC OS computer. This will provide the most efficient performance in any case. The magazine itself can also, of course, be read on a Mac or PC; you will simply lose the ability to use the RISC OS-only interactive features which involve launching software from the DVD.

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Software Contents

As well as the contents of all issues of the magazine, the ***Foundation RISC User*** DVD contains a considerable amount of software:

Resources from RISCOS Ltd's Web site

- Contents of the Foundation private area, including a range of manuals in PDF format
- Public files, including the latest RISC OS 4 patches and the ***Taborca*** PDF printer driver

RISC OS free software archive

- Includes items by RISC OS Affiliate Developers, cross-referenced to the Database section, together with a selection of the most useful free software for RISC OS:

Astronomy

Copernicus 1.54va
MoonTool 3.27
Orion 0.11
StarChart 1.05

Backgrounds

JPEGs, Sprites & Sprite tiles

Books

First Steps in Programming RISC OS Computers (ed. 2)
• A Beginner's Guide to Wimp Programming on RISC OS Computers (ed. 2)
• ARM Assembly Language Programming

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New committee members

New committee members are always welcome. Please get in touch with our chairman Toby Smith at toby@armclub.org.uk if you would like to contribute more to the club.

Being a committee member is not an onerous postion, we have only one meeting a year. The benefit of becoming a committee member is that you get free membership of the ARM Club.

Wakefield 2005

The venue

The Editor describes his impressions of the Wakefield Show

The show was fairly packed as I arrived mid morning on Saturday. This meant that most of the bargains on the charity stall would be long gone. However I still managed to pick up a couple of bits and pieces that would come in useful.

My first port of call was The ARM Club stand to say hello to my fellow committee members who seemed to be fairly well occupied in dealing with membership subscriptions, renewals and even persuading the odd person to become a member of the club.

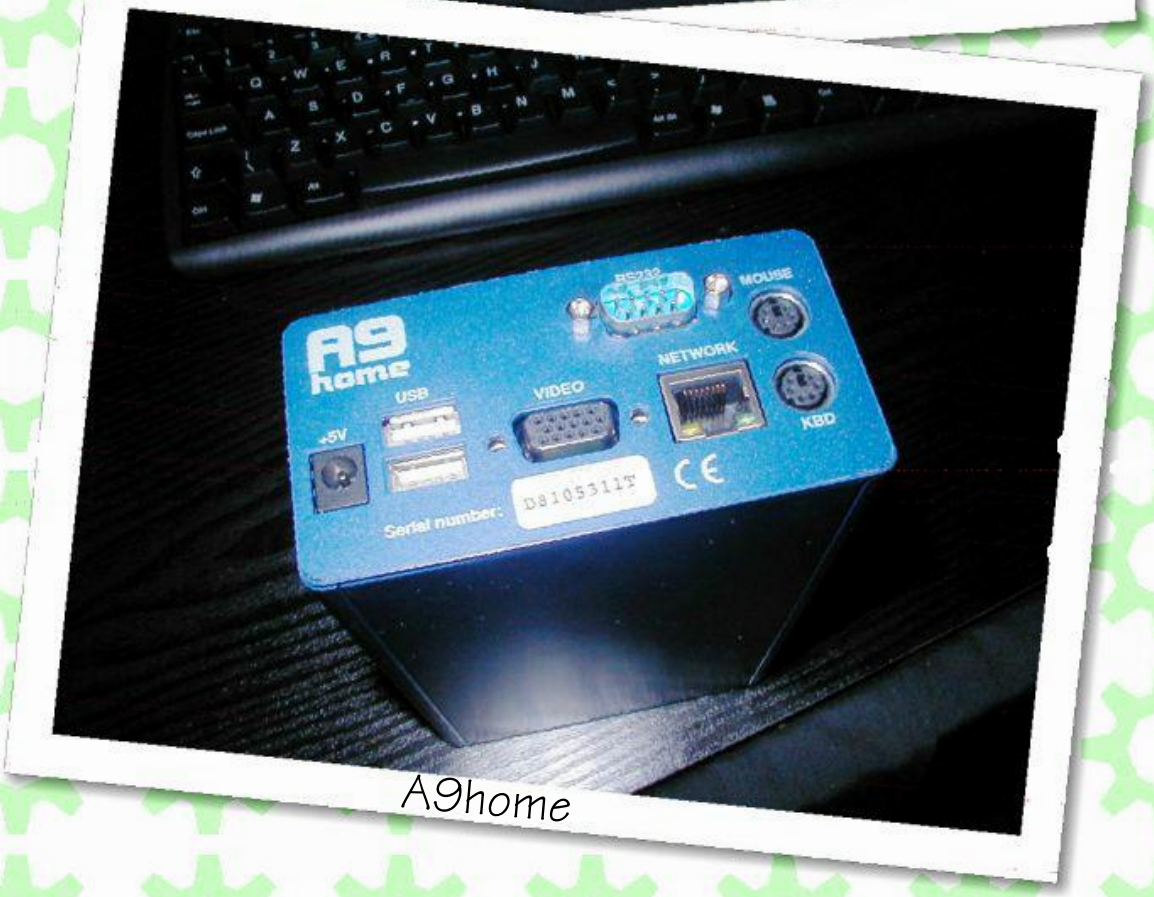
Pleasantries exchanged, I started to look around the hall. My first stop was on the Artworks stand. Martin had a new copy of ***Artworks*** out - version 2.4 which I duly purchased. Oh dear, I've spent some money already and I've still got all the other stands to

visit. Sharing the same stand was Hubersn Software. Stephan had produced some new DVD burning software for use on RISC OS, ***CDVDBurn,*** enabling RISC OS machines to write and read DVDs but not at the moment to record video.

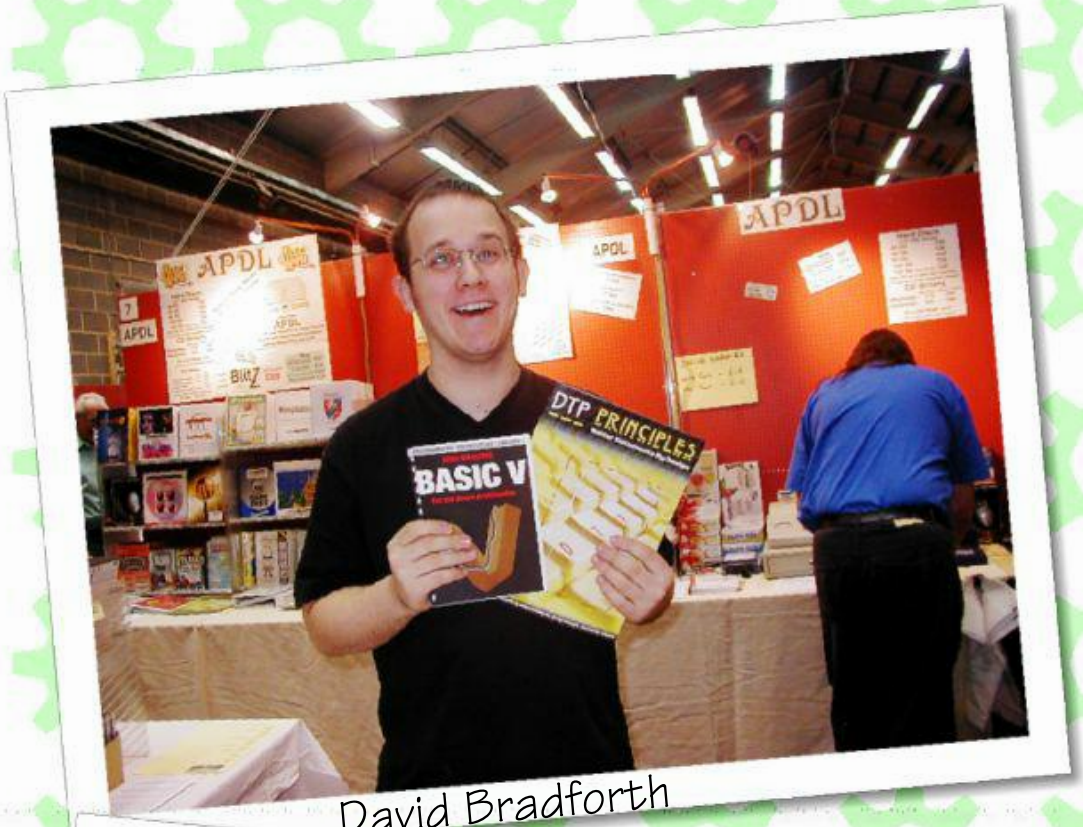
On the next stand along Mike Glover was demonstrating the latest copy of ***Easywriter*** with macro support, but what actually caught my interest was the marquee covered stand of Stuart Tyrol and Advantage Six. The stand was very busy and it was difficult to get close. However I eventually managed to see what the excitement was all about: a new desktop computer, the A9 Home. However this one did not take up all the desktop as normal PCs do. It was the size of half a brick. I lusted after it immediately. As far as I'm concerned, the smaller the computer the better. Advantage Six had several on display and hooked up to a keyboard and mouse. They were running a version of RISC OS Select 32 bit. Luckily for my bank balance they were only available for developers but I was allowed to handle one. The machine was not heavy at all and I managed to resist the temptation to slip it into my coat pocket. CJE Micro's will be marketing them when they are available to the general public.
(continued on page 33)

The hall on Saturday

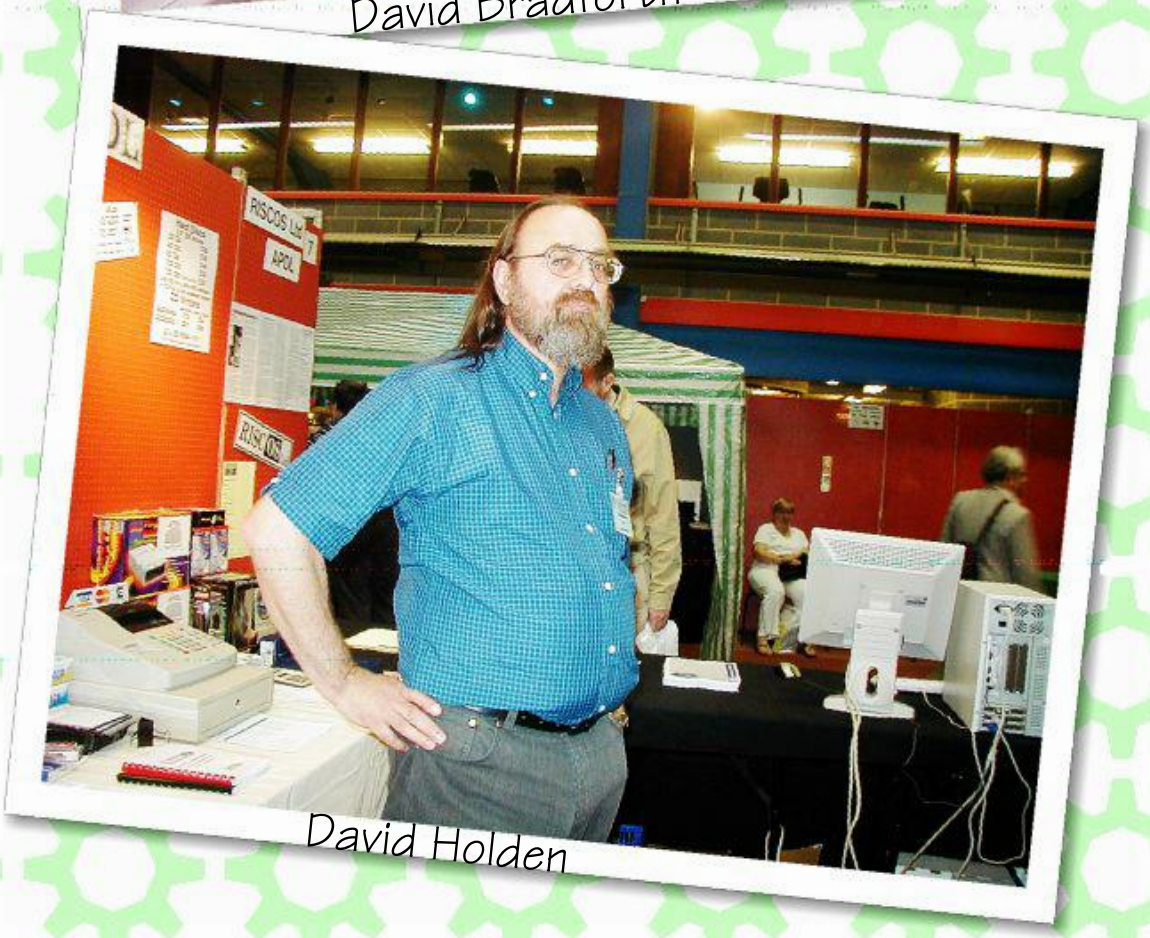
Wakefield Snapshots



A9home

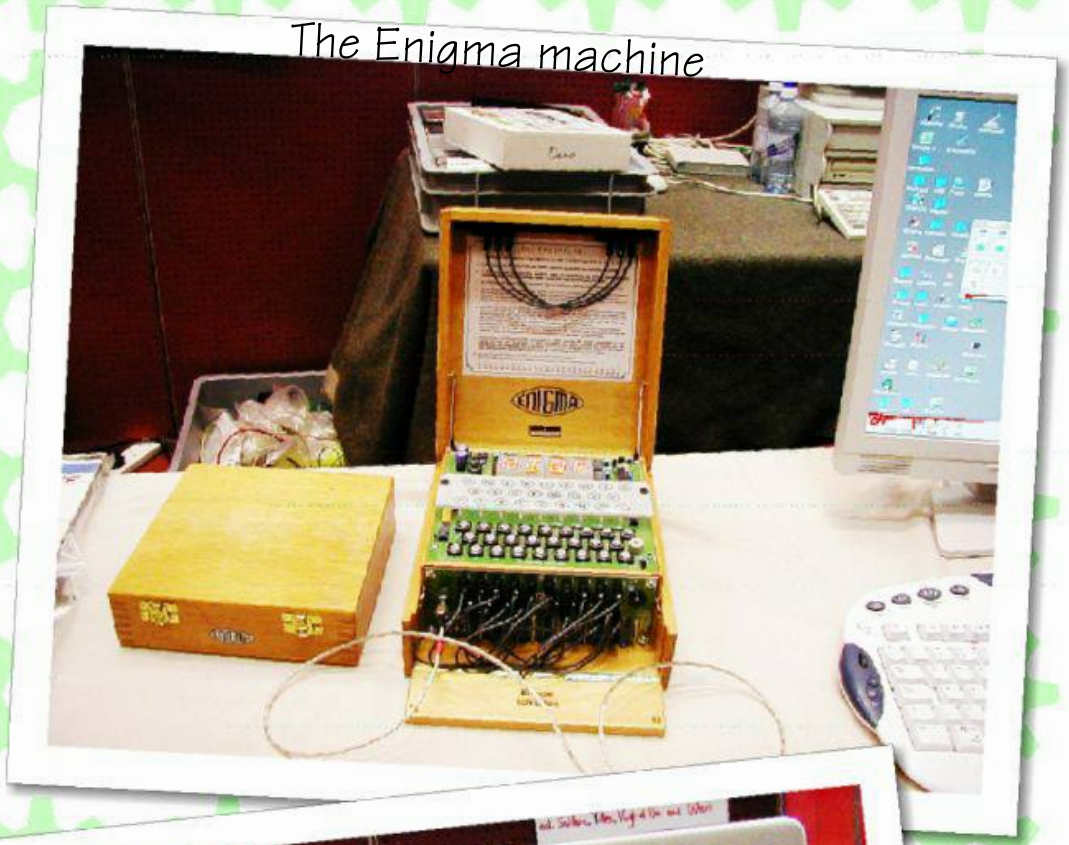


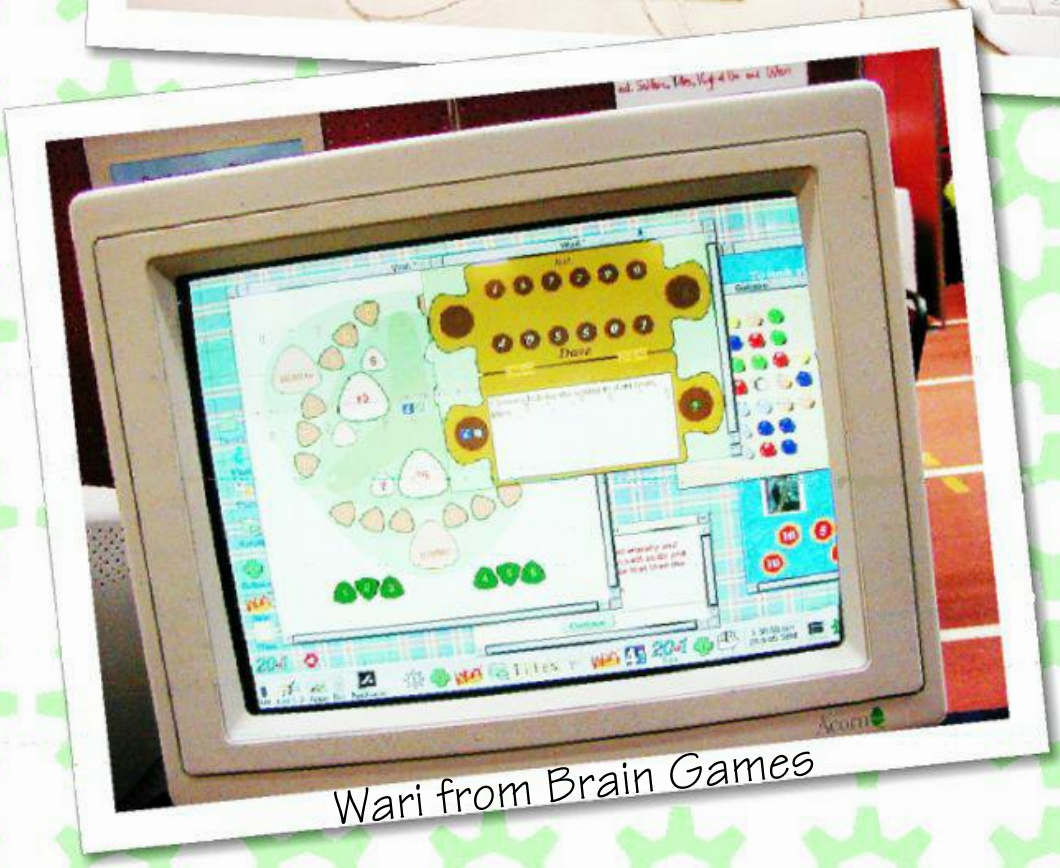
David Bradforth



David Holden

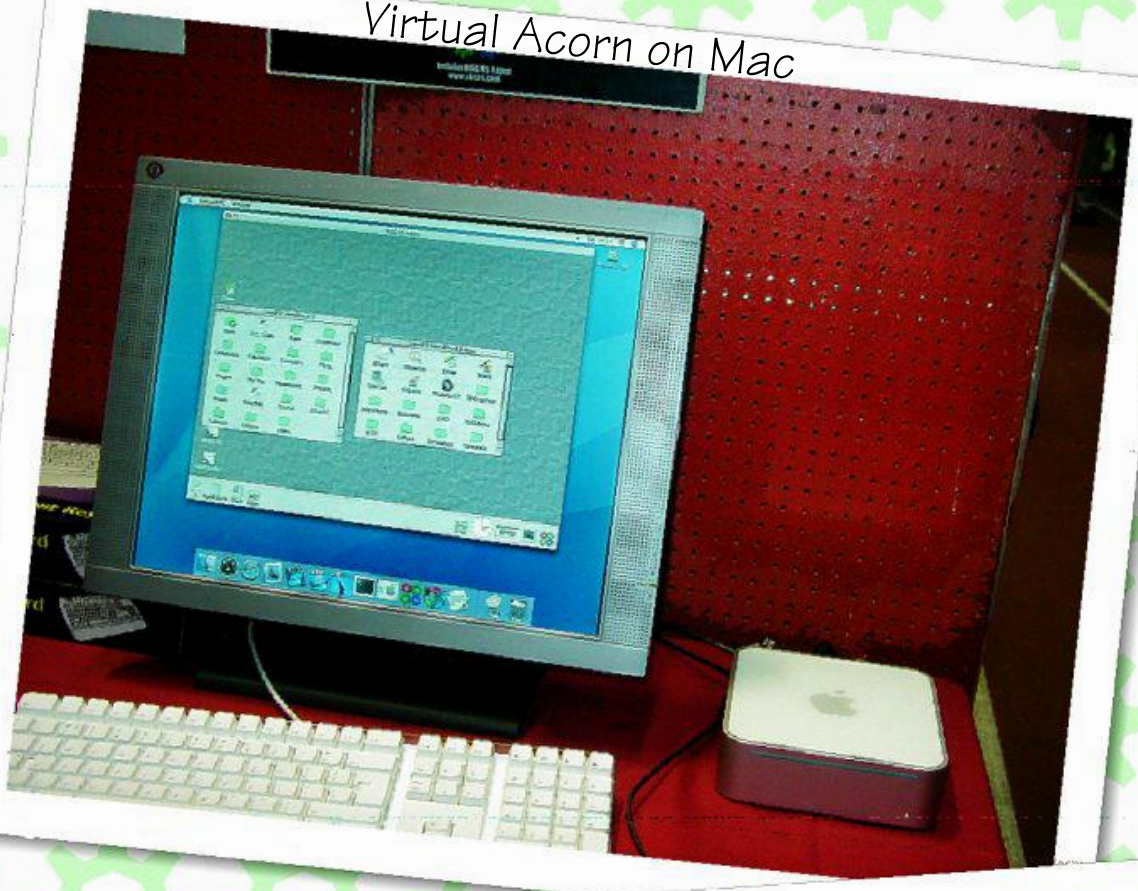
The Enigma machine





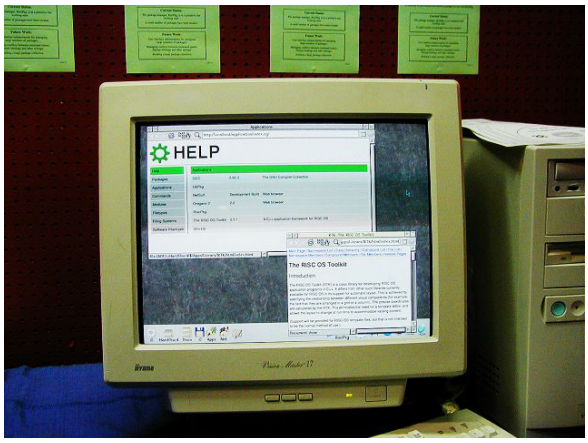
Wari from Brain Games

Virtual Acorn on Mac



Stuart Tyrrell marquee

Photos by the Editor



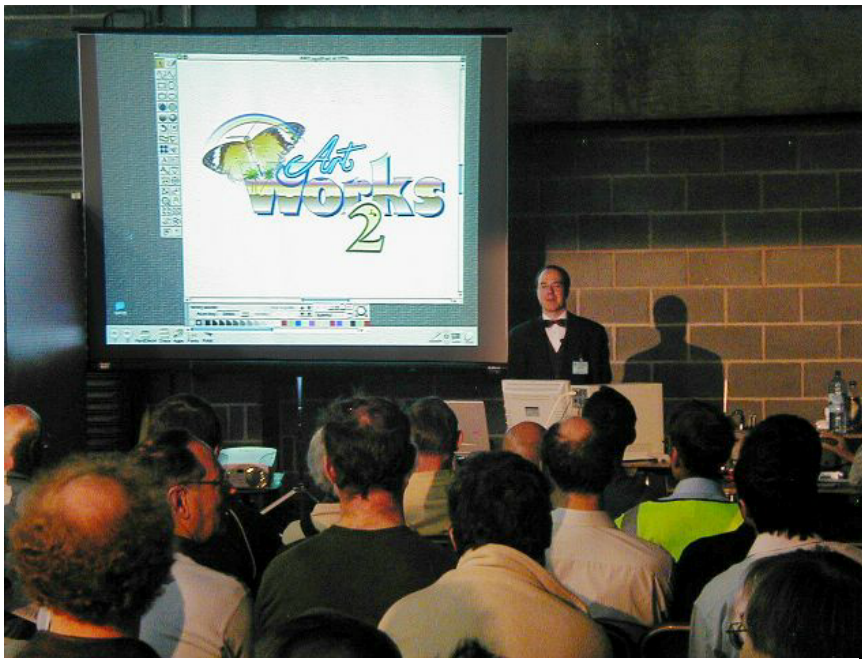
!Help running in a browser window

Dragging myself away I managed to slip over to Virtual Acorn on the stand opposite. The first thing to catch my eye was the Mac mini - another computer I've been tempted by. Naughty thoughts drifted into my head. I could get one of these and stand the A9 home on top of it and still manage to lose both under my desktop clutter at home. Looking at the display, it wasn't the Mac desktop I saw but the RISC OS one. ***Virtual Acorn*** was running on the Mac mini!
Unfortunately not yet for sale, so I couldn't spend more money.

Qercus had a large colourful stand in the middle of the hall and I was pleased to see that a new issue had just been published. I hope this means that future issues will now be more regular than they have been in the past.

Wandering up to the other end of the hall I came across Paul Vigay's new venture Orpheus Internet - a new internet provider for every one, RISC OS, Mac and Windows - offering both broadband and dial-up accounts. Close by I had a chat with the people on the NetSurf stand, the free, fast and actively developed browser for RISC OS.

Neil Spellings' stand attracted a large amount of attention all day with demonstrations of ***Geminus***



Martin Wuerthner demonstating Artworks

R-Comp stand

the multi screen/rotation screen software, ***Cino*** the DVD player and new software ***Desk Debug*** the first multi tasking RISC OS debugger.

Finally on Saturday I had a quick look at Peter Naull's port of ***Firefox***, the up and coming web browser. It looked very impressive and hopefully will be available in the not too distant future.

Sunday arrived and I managed to get into the hall early to have a look round and chat with some of the exhibitors. When the show officially opened the number of people through the doors was a lot less than on Saturday. I spent most of the day listening to the talks. Advantage Six were showing off their new machine, Mike Glover was demonstrating the latest version of ***Techwriter,*** John Cartmell of Qercus talked about the magazine and Castle described the various non home computing uses for RISC OS as low cost signage display systems.

There was one new exhibitor in the hall showing the BBC Doomsday project running on original equipment using the old Phillips Laser discs.

With the show finally over I set off back home to Canterbury. If what I had seen in terms of new hardware and software becomes available to the general public then I think the future of RISC OS begins to look a little more rosy.

Winning Games With Logic Part 10

Barry Aulton continues on his road to producing the perfect game.

One thing I have not gone into thus far, is the problem of navigation. In most computer games objects move. In Terry Pratchett's Discworld you would have little demons, one behind each moving object in the computer game. You may have noticed that we don't actually live in the Discworld (though some MPs seem to). So if we want to move objects round the screen we must resort to plan B. We just have to determine what plan B is!

There have been many attempts to solve problems to do with movement, none of which are the be all and end all. Originally AI people did not realise just how hard such problems are. I mean your average human is good at crossing the road whilst remaining in one piece, whilst less good at finding a check mate in two moves. The big trap AI people fell into was the belief that what was easy for humans would be easy for robots. To refute this Rodney Brooks entitled one of his landmark papers ***Elephants Don't Play Chess***, implying just because you can't play chess does not mean you're stupid.

Navigation (moving your CCC from point A to point B) turned out to be such a complicated problem that it had to be broken down into stages:-

Stage 1 Plan - Action Selection - At this stage if you plan to go from say London to Brighton you may take a map out and plan where you are going to go.

Stage 2 Steer - decide where to turn the steering wheel - react to the current (driving) situation.

Stage 3 Locomotion - turn the wheel .

In the 1970s at the Stanford Artificial Intelligence Lab (SAIL) one major issue was the controllability of a vehicle on the moon from the earth, given the 2½ second lag time for radio

waves to reach the moon and back. (Among SAIL's claims to fame are the first video game, ***Space Wars,*** the first electronic robot arm and some of the first computer generated music). This meant that the robot vehicle needed some degree of autonomy. To test the algorithms that would enable the robot to navigate its' way round boulders etc, a simple robot called the CART was built. It had four bicycle wheels and a drive system that used a bicycle chain. The moon rover project soon got scrapped, leaving the CART free to be used for other projects such as an automatically driven automobile. It was believed that as a first step towards solving such problems the robot had to make an accurate internal model of its' environment and much work was done to this end. However, the pay off for this work was in video games, not navigation. The CART took six hours to travel 60 feet.

This inspired Rodney Brooks (*ref 1*) to look for an alternative solution to the problem. He had developed an heuristic in carrying out research, namely look at how everyone else was doing it, find the central things they all agreed upon to the extent that they never talked about them, negate their implicit beliefs, and see where that leads. He decided instead of trying to represent accurately where obstacles were, to try to represent were they weren't.

This is the artificial life approach to behaviour and led to a different set of ideas and beliefs, such as: -

1. Make behavioural systems as specific, specialised and simple as possible. Don't try an all singing and dancing, all possibilities catered for solution. (eg There may be no point in trying, say, to combine boundary collision detection with collision detection from moving objects, just treat them separately.)
2. Exploit the physics (or graphics in the case of games), to minimize the additional processing.
3. Don't get paranoid about symbol representation and precise measurements.
4. Simple mechanisms give rise to complex behaviour. Do whatever needs to be done at the moment, instead of making elaborate plans. Computer games are the art of illusion. If it looks OK, it is.

I thought I would supply an example in case such guidelines are too abstract for you. How do we get our baddies to :-

A) follow walls

B) exhibit flocking behaviour

Wall Following

A wall following robot does not need a precise internal map of its environment; one sensor telling it when it is too far from the nearest wall and another telling it when it is too close suffices. We thus need only a simple behaviour system to use one in a game. The real one is only :-

- Maintain a default speed and in a forward direction.
- Reverse speed if (touching or within collision sphere) of an obstacle in front.
- Turn away left if (touched) on the right side.
- Turn away left if (touched) on the left side. (from ***Artificial Life*** ed. C. G. Langton)

Flocking

Your doughty aliens mass to attack the players forces. But you don't want them to fall over each other. The simulation of flocking behaviour was pioneered by Craig Reynolds in 1987 and is based on three rules, namely:-

1) Avoid collisions with nearby flock mates, by keeping a minimum distance between them.
2) Attempt to match velocities with them.
3) Attempt to stay close to nearby flock mates (called flock centering.)

Figures 1A - C show an example of a flowchart to simulate such behaviour (used in TEK). It has many fudge factors in, but if you have followed previous articles you should be able to roll your own. Suffice it to say that here a CCC (tank, soldier etc.) has been told to seek out (and destroy) enemy units . The pathfinding part - how to navigate round buildings is entirely separate. I hope it makes some sense, even if some specific details are not clear.

I will explain a few symbols first here:-

Symbol meaning

Weights

fudge factors eg I guessed a unit's tendency to travel towards its required destination may depend on its loyalty. So I used a magic

formula:-

*destination weight = loyalty * loyalty * 20 + 2000*
A disloyal unit may stray further.

Tangent
The tangent direction a particular CCC is going in

Copyweight
The mean tangent direction of nearby CCC's. You try to travel parallel to this. To calculate this we sum the x AND y coordinates of the units, the average of these is the flock centre.

Copyfact
Force to flock with friendly units.

Guardfactor
Your CCC may be searching for the enemy but still must stay near a place.

Attackweight
The mean tangent to the nearby inferior enemies (eg the player's forces). To attack, try to match directions with that.

Fleeweight
The mean tangent direction to 'superior' enemy forces. Go the other way.

Loyalty
Your CCC is more likely to follow orders if loyal, rather than go its own way.

xdot
units computed velocity in x direction

ydot
units computed velocity in y direction.

You may notice that in fig 1C if a unit has got too close to its nearest unit, the velocity is reversed.

The actual algorithm in pseudo c follows as figs 1A-C:-

This is just one method for dealing with the rather nasty problem of steering, which itself is only one aspect, (viz the here and now bit) of navigation.

Traditionally, the art of the game programmer was:- cheat like mad, if it looks OK, it is OK. However right from the start when things move it probably won't look OK. Navigation was really the first problem game programmers had to solve.

ref 1 ***ROBOT*** Rodney A Brooks

FIG 1A

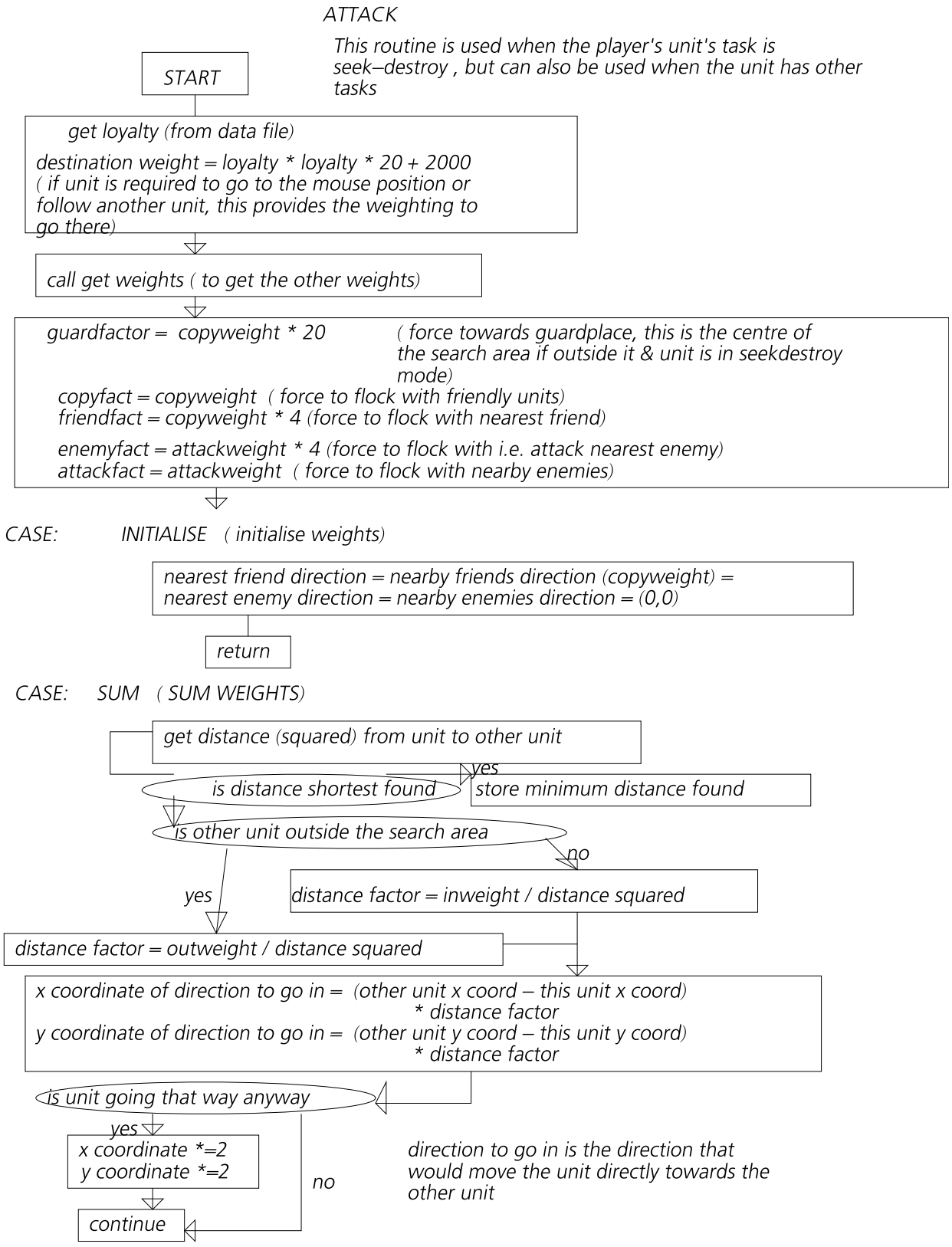
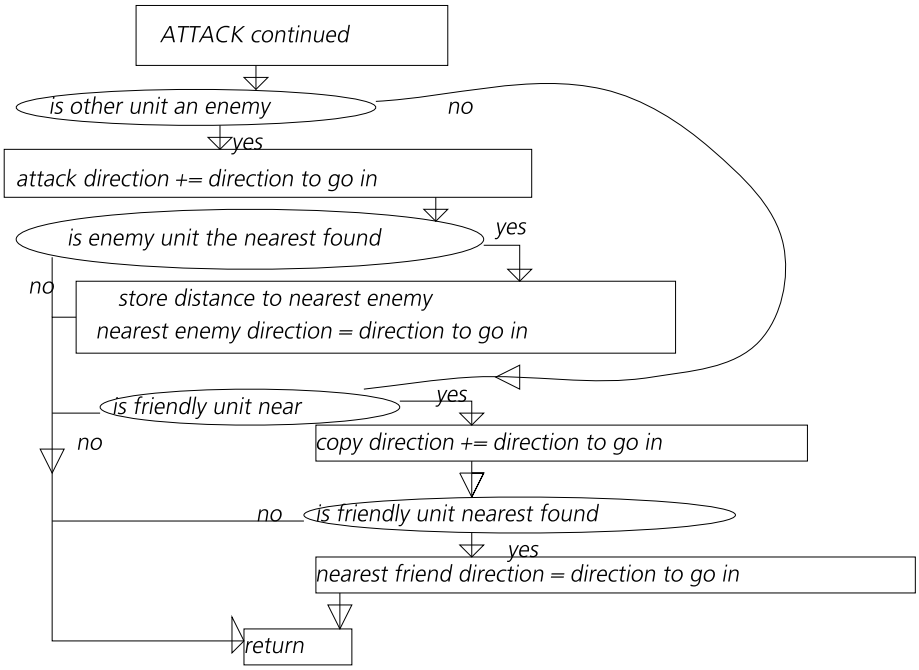
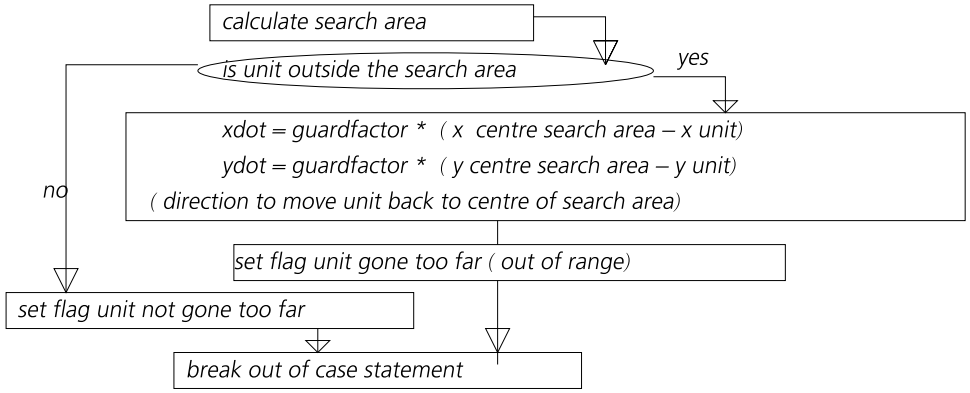

ATTACK
This routine is used when the player's unit's task is seek–destroy , but can also be used when the unit has other tasks
START
get loyalty (from data file)
destination weight = loyalty * loyalty * 20 + 2000
(if unit is required to go to the mouse position or follow another unit, this provides the weighting to go there)
call get weights (to get the other weights)
guardfactor = copyweight * 20
(force towards guardplace, this is the centre of the search area if outside it & unit is in seekdestroy mode)
copyfact = copyweight (force to flock with friendly units)
friendfact = copyweight * 4 (force to flock with nearest friend)
enemyfact = attackweight * 4 (force to flock with i.e. attack nearest enemy)
attackfact = attackweight (force to flock with nearby enemies)
CASE: INITIALISE (initialise weights)
nearest friend direction = nearby friends direction (copyweight) = nearest enemy direction = nearby enemies direction = (0,0)
return
CASE: SUM (SUM WEIGHTS)
get distance (squared) from unit to other unit
is distance shortest found
yes
store minimum distance found
is other unit outside the search area
no
yes
distance factor = inweight / distance squared
distance factor = outweight / distance squared
x coordinate of direction to go in = (other unit x coord – this unit x coord) * distance factor
y coordinate of direction to go in = (other unit y coord – this unit y coord) * distance factor
is unit going that way anyway
yes
x coordinate *=2
y coordinate *=2
no
continue
direction to go in is the direction that would move the unit directly towards the other unit

FIG 1B



case CALCULATE: (for seek destroy task)



case GOCALCULATE: (for go to mouse or follow another unit)

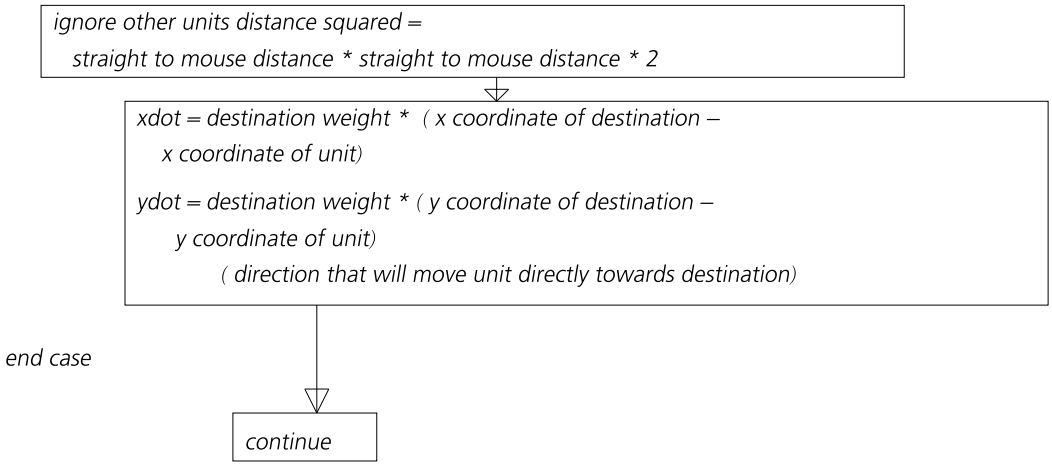
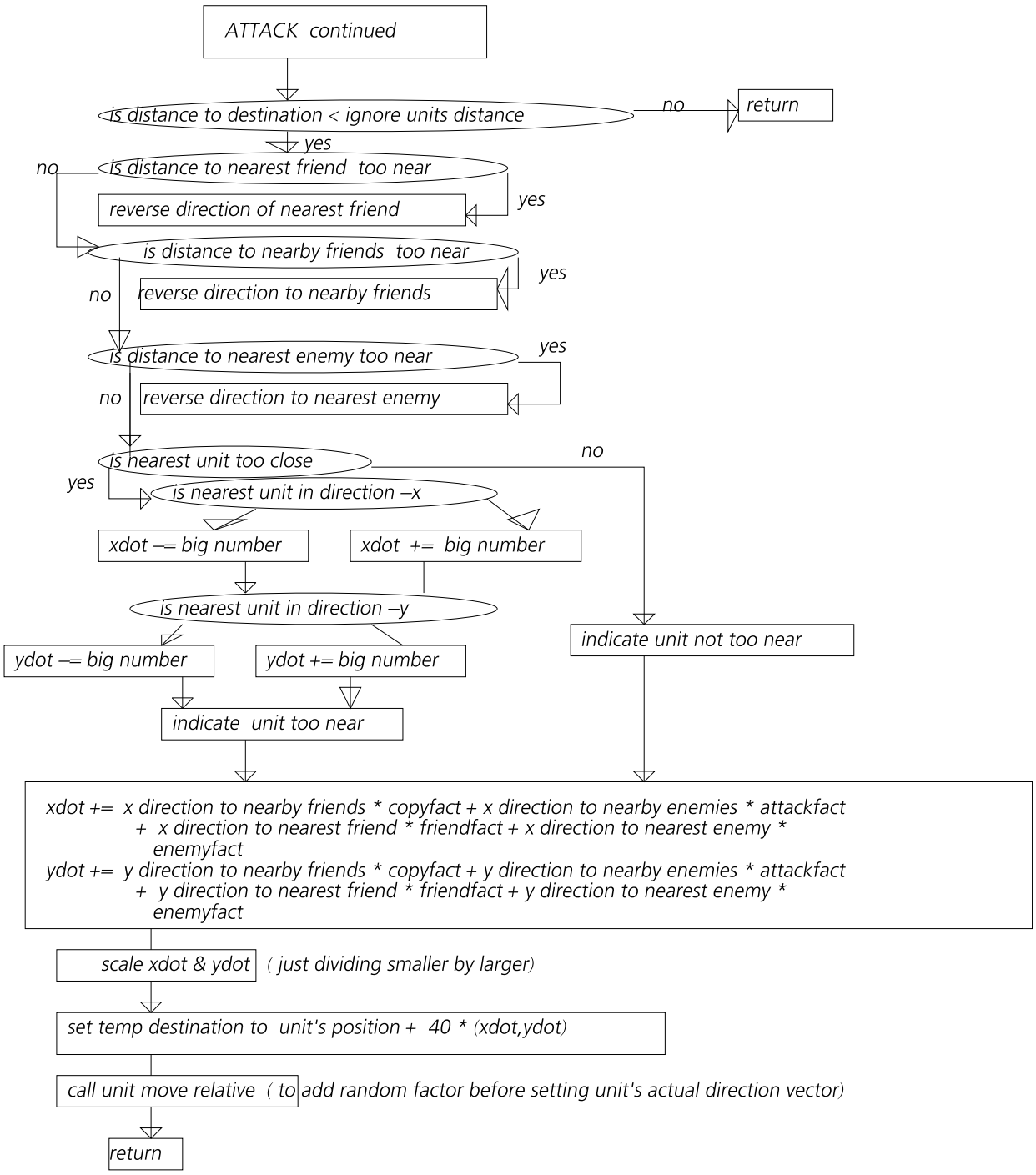


FIG 1C



(xdot,ydot) is the demanded direction for the unit to go in prior to including a random factor.

Ron's Rubbish corner

(again)

In which Ron describes his hospital experiences (not for the squeamish) and reports on his day out at the Wakefield Show

Well, thanks to you idle lot, here is yet another offering concerning the doings in the Briscoe household and in particular the unending use of cunning plans to facilitate the continual upgrading of my RISC OS system. Now back to the plot.

Shortly after the Western Show I was struck down with a bug which laid me low for a couple of weeks. (No comments along the lines of just desserts please.) This was so severe that I was confined to my bed and only recovered when my sister appeared on the scene offering to nurse me. Having suffered her 'Nursing' as a mere lad many years ago I made a miraculous recovery and two hours later was busy catching up on my two week's backlog of mail and Newsgroups postings. Exit one disgruntled sister in a huff.

Having recovered from this little setback I was then faced with a minor operation, polyp removal. In hospital one day and out the next. The local hospital, having finally achieved the arduous task of getting all of my paperwork together in one file, sent me a combined pre-op and admittance date letter with the two dates highlighted and having made relevant inquiries, like is the food eatable and are the ongoing MRSA bug scares at said hospital worth worrying about, I make arrangements to have the time off from work.

The pre-op appointment goes without mishap thanks to my foresight of asking ex-patients for tips (1) and I am told to report for my operation at 8.05 on the morning before Good Friday. (It seems that minor in and out operations are done close to a

(1) When going for a pre-op examination you are required to;
(a) Give a blood sample.
(b) Have an ECG.

These often mean getting a supermarket type queue number and waiting until your number comes up on a monitor screen. My tip here is to turn up early, get a ticket from each of the ticket dispensers, and then go to the pre-op interview. When that bit of fun is over a quick look at the number boards should tell you which of the two queues is going down fastest; ie where to go next. Of course you could be really cunning and get several tickets and later become a queue jumping ticket tout.

weekend or Bank Holiday so as to clear some beds for more serious operations the following Monday.)

I report at the required time to the appropriate ward where a extremely harassed ward Sister having looked at my letter told me that, yes, I was due for an appointment, but the admissions manager had not booked me for a bed. Seeing that the ward was in a state of utter chaos I, remembering that the pre-op ward had a waiting room nicely stocked with a number of science fiction books, volunteered to wait there until our problem could be sorted out. This suggestion was gratefully accepted and I spent a couple of happy hours reading books whilst various people poked their heads around the door to tell me that things were happening.

Suddenly a man appears who turns out to be the anaesthetist; whilst he is going through his final check and paperwork a female administrative type bustles in. They retire to one side and argue. (Why is it that people think that if they move away by about three feet then the person who they are talking about can no longer hear them?) The conversation ends with the flat statement of, "Well he is having the operation and finding him a bed is your problem." Exit disgruntled woman and medical person, who winks at me before closing the door.

Very shortly afterwards I am informed that there is a spare bed but unfortunately it is in the womens' section of the ward. I say that if the ladies in the aforesaid do not mind putting up with me then I certainly don't mind going there. Hardly are the words out of my mouth when I am whisked back to the admissions ward to prepare for my operation, only just having time to take the book I am reading and a couple more for later perusal.

When I awake I am trundled back to the ward and propped up in bed to recover. As I slowly regain my full awareness I notice that my nose is stuffed full of something and there is a drip of some sort running into my wrist, more of which later, and that three ladies of varying ages are viewing me with interest. They show me how to use the pay phone via my purchased phone card and I phone home to let Christine know that despite

everybody's prayers I am still alive.

Before getting back to reading I survey my temporary abode and notice that the phone is part of a television (£3.50/day) radio (free) and phone combination all mounted on a swinging arm contraption. I try the radio, it is obviously designed to force one to pay for the television. Seven stations none suitable for me, no Radio 4, no Radio 3 and whoever thought that Radio 1 was conducive to patient recovery needs headphones tuned in to that station, at full volume, strapped to their heads.

I read my borrowed books, gently refusing offers of food from the trolley, neglecting to say that I have been forewarned of the cooking standards and have at least two days of my own supply stored in my overnight bag. After tea I share my personal supply of pork pie and salad with the three ladies and a passing nurse. In fact I am so generous that I have to order the next day's lunch as we have eaten all of my food and Christine is unavailable to bring more supplies, being on the way to visit me. I pick the breaded fish with chips in the hopeful view that the cook cannot do much damage to that choice.

Christine visits me and spends almost all of the time there wondering wether she remembered to record the ***Archers*** or not. I ask the ladies and sure enough one of them has a radio and at seven o'clock the four of them retire to listen to the ***Archers*** leaving me to look at my drip.

After Christine has left I purchase a card and enable the television, it is worse than the radio and what is worse I find that you cannot switch the damn thing off. The only thing I can do is to turn the sound down to minimum and removing the headphones jack turn the contraption to the wall when I wish to get some sleep. This is not possible for some time as the ladies are having a somewhat lively conversation with each other far into the night. This turns out to be fortunate as when I do eventually drop off I sneeze and blow out the blockage in my left nostril. The ladies, still talking, rush and fetch the nurse on night duty which is fortunate as my nurse pager does not work. I am told that no one has previously blown out one of these artifacts before.

The next day I am passed fit to return to the outside world and, refusing the generous offer of staying for lunch, I purchase another two phone cards and, along with the hardly used first one, donate them to the ladies and make my escape. I am so keen to get away that I neglect to phone Christine who is most surprised when I enter 'Briscoe Castle' and, hardly stopping to give her a quick hug, switch my Iyonix on. Furthermore, as a reward for my stoicism, my friendly GP gives me a fortnight off work. When Christine is clearing out the overnight bag she comes across the hospital letter. "It says here that you should phone up on the day of your operation so as to make sure that it is still on. Did you read that part?" I refuse to answer on the grounds that it will certainly incriminate me. Amazing that one only seems to read the highlighted parts of documents. Eh?

As the Wakefield Show slowly came into view I started to read of upgrades to various bits of software due to be released at the Show, including ***ArtWorks***, ***Easi/TechWriter, RiscCad*** and excitingly the latest offering from Steffan Huber ***CDVDBurn***. Despite inquiries I could not find out the price of said upgrades and so determined to take more money than usual to Wakefield.

The day of the show dawns and I'm suitably loaded with money and a bag to carry purchased goodies away. I always take a strong bag as on my first visit to Wakefield the sheer weight of purchases broke the plastic carrier that they were in; only by putting one of R-Comp's carriers inside another was I able to get them home. Christine and I board the train to Wakefield. Whilst boarding the train I notice a young man whose cranium is bulging with brains carrying an Iyonix onto the train. This turns out to be Mark Rowan who from my lurking here there and everywhere is, I know, a thoroughly nice guy and he is taking his machine for remedial work. I wish him luck and when we get to West Gate Station he and one or two others wait for the free minibus whilst Christine and I walk down the drive, she to go to look at the shops and I to walk down to the show.

Upon reaching the show I hand over my advance ticket. These Wakefield guys are fools for with a certain cunning plan of mine

they could safely charge more for advance tickets than less and if it would not adversely affect me I would reveal it. The ticket is torn into three, a bit, for me, a bit for the used ticket box and as I have already filled all the necessary details in, one bit into the prize draw box. I purchase a couple of car raffle tickets, why I know not as I can't even drive.

The preliminaries over I say a quick hello to The ARM Club guys and rush off to buy stuff. I upgrade ***CDBurn*** to ***CDVDBurn***, an absolute snip at £20. From thence to the Icon Technology stand, the smart in several ways Martin Wuerthner is busy showing a customer the latest enhancements to ***ArtWorks***, where I upgrade the ever improving ***TechWriter,*** and worth every penny. Back to the impeccable Martin W. and ***ArtWorks*** is upgraded toot sweet.

I then wander over to the Castle stand. What? £130 quidlets for a DVD burner even allowing the full price of ***CDVDBurn.*** I can do better than that so I do not take advantage of their offer. This over I purchase the latest UPP CD from Peter Naulls after suffering a small amount of badinage concerning troublesome Brummies. I will really miss seeing him perched alongside a pile of redundant RiscPCs demonstrating the latest fruits of his labours whilst selling CDs whose price would be much more for the equivalent commercial software.

Next a visit to Martin Hansen where he tells me that after my sad tale of injury from my old monitor as told to him at Western, he has upgraded his excellent ***TurtleChalk*** software so as to be able to run in LCD monitor modes. I of course upgrade this as well.

The tale is this; I had purchased ***TurtleChalk*** from him but on running it found that on my LCD monitor the screen modes looked terrible. Christine being out I decided to retrieve the old monitor from the loft and having juggled it around and holding it above my head I was gingerly retracing my steps down the loft ladder. Suddenly there was a tug on my trouser leg, startled, my parlous grip on the monitor slipped and only my head stopped it crashing to the floor. Quickly re-grasping the monitor and having reached the safety of the landing I turned to hear Christine say, "What are you doing? Did I startle you?"

Rubbing my head I declined to answer and staggered down the stairs to try out ***TurtleChalk***.

I then visit CJE Micros and purchase a monitor/keyboard/mouse switch box plus a lead to connect it to my Iyonix. Turning round I espy the Brain Games stand and purchase his 'All the games on one CD'. By now my bag is starting to look rather bloated and I retire to the Cafe to rearrange the contents and to gather strength for another trip around the stands. Whilst there I hear someone say, "I don't use RISC OS at all these days. My PC does everything I need." This is heresy, but after fruitlessly looking about for a stake and some kindling I decide not to let these sorry comments ruin my day and return to the action.

I spend some time talking to the ARM Club guys, and Peter Naulls sells me a network card for my RPC in exchange for a tenner. In revenge for the earlier anti- Brummie comments I reveal the price to Druck and company. A few chats and purchases later it was time to wend my way back to the Station and meet Christine and hopefully by looking spent out in senses persuade her to buy me some nosh.

Fat chance! As I stroll up the Station drive Christine comes down to meet me. "It's a diet for you my lad, I hadn't realized just how much weight you had put on until I saw you coming up the road." So no nice meal for me, just a cup of tea and a vegetarian salad. Back home the regime has continued and it is only due to a few cunning plans that I am getting any pork pie at all. Strangely Christine cannot understand why despite my enforced diet I don't seem to have lost very much weight and furthermore how the pedals on the exercise bike have fallen off.

A little bit of googling led to me purchasing a Lite-On 1673s DVD burner. The cost? £42.09 including delivery. I install it and lo and behold it works. No I have not yet put the network card in the RPC or connected the switch box because I'm having too much fun playing with the new software and burning DVDs of all my digital photographs. So there.

An author likes to know how his work is received, or in my case how far into the article you were before you ripped the pages out and fed them to the shredder, so I am including my email address. *ron.briscoe@blueyonder.co.uk*

Use it at your peril.

Free for all

Andy Burgess describes setting up !POPStar to run with Broadband and a few other freeware programs.

I downloaded ***!POPStar*** from the internet address **http://www.youmustbejoking.demon.co.uk/progs.apps.html** and I experienced some difficulty setting it up. I couldn't understand how to do it. I found some helpful suggestions for how to set it up from **www.dracos.co.uk/riscos/internet/popstar/**

I've set up a few PC connections to the internet and know that invariably there are two settings you need to have set up - an SMTP (Simple Mail Transfer Protocol) and a POP (Post Office Protocol) connection. These are normally addresses of a form something like:

smtp.isp.co.uk and
pop3.isp.co.uk

SMTP is usually for sending mail, and POP (or POP3) for receiving mail.

>From within ***!POPStar's*** help (Menu-Help...-Installation-Choices:POPStar) I loaded up the Choices file in ***!Edit***, and tried to change it to my needs. I then found out I had only a read-only version, if you try to save this file from ***!Edit***, you get the unhelpful (for RISC OS) message:

"Path variable had multiple entries and was used for a write operation."

However if you edit it in something like ***!Zap*** you can edit it and save it successfully! Alternatively, you can directly open the file in ***!Edit*** from the directory at $.!Boot.Choices.POPStar - ***!POPStar*** should have created this for you.

You can have multiple users per setup, but so far as I can see only one SMTP setting.

CHOICES file

To set up the SMTP part, you need to edit ***!POPStar's*** Choices file at ADFS::HardDisc4.$.!Boot.Choices.POPStar.Choices. I have only listed the options I have changed, all the rest are the defaults (these are the settings for Orpheus). I've added annotations as comments below (# prefix):

SMTP:smtp.orpheusnet.co.uk
...
I changed the below line from the default of 4 minutes:
FetchEvery:15

I changed the below line from the default of 1 minute:
SendEvery:15

SendFirst:N
#If you want send to have priority over receive

AutoFetch:Y
#Auto fetch messages when loaded - useful as ***!POPStar*** handles it all for you

AutoSend:Y
#Auto send messages when loaded

USERS file

To set up the POP part, you need to edit ***!POPStar's*** Users file at

ADFS::HardDisc4.$.!Boot.Choices.POPStar.Users.

You need to add your user details at the end of the file: In ***!Edit*** - use Crtl-I for tab chars, or just the Tab key for same effect in ***!Zap***.

I added the following line (though you can have multiple users) <tab>'s appear as white space in !Zap, and as [09] in ***!Edit***:

Orpheus-cf01<tab>cf01<tab>password<tab>pop.argonet.co.uk<tab>Y

Run ***!POPStar*** - the icon should turn blue when it starts to pick up or send mails.
Hmm, a "blue" popstar, perhaps Jarvis Cocker, or Noel Gallagher from Oasis?

When downloading it displays a little window saying things like

"Logging in cf01"
"cf01@pop.orpheusnet.co.uk"

The size of the email is in the "Total" box, and the box next to this (under stop) gives the current email - 1/55 - one of 55, it resets this every 40 or so emails unless changed in the choices file. It puts the downloaded mail in <PopStar$Dir>.MailDir.spool.mail.text with the name of your created user - in the case above - Orpheus-cf01.

If it doesn't - I had an existing Choices$Write directory set up and when I deleted it, ***!POPStar*** wouldn't work! The solution was the following (which I put into an Obey file that could be run from anywhere):

```
CDIR Boot:Choices.PopStar
COPY <PopStar$Dir>.^.Choices
Boot:Choices.PopStar.Choices ~C
COPY <PopStar$Dir>.^.Users
Boot:Choices.PopStar.Users ~C
Filer_OpenDir
Boot:Choices.PopStarCDIR
Boot:Choices.PopStar
```

This program first Creates the directory !Boot.Choices.PopStar, then Copies the two relevent files from Popstar's parent directory (popping up a level (^ - equivalent to PC's ".." directory). Then it opens the directory ready to change the files as detailed above.

I set up a shortcut (a la PC, but better) in my Boot sequence at !Boot.Choices.Boot.Tasks, and called it !PopStar. It does the following:

<PopStar$Dir>.!Run

Using !POPStar with !Pluto

I don't use Messenger plus, so cannot write about that here. I set up ***!POPStar*** for use in !Pluto (v3) in the following way:

Menu-Preferences-News/Mail... Click the dropdown box for Mail Transport (I don't use news), and select POPStar.

Initially sending and receiving didn't work for me - sending an email gave "....!Popstar.MailDir.spool.mqueue.work doesn't exist! This was because I had run an ancient version of ***!POPStar***. Closing down ***!POPStar*** and ***Pluto***, and renaming the old ***!POPStar*** application

directory to !OldPOPStar (Status Quo, perhaps?) and restarting both the correct version of ***!POPStar*** and ***!Pluto*** removed this issue.

If you have ***!SysLog*** installed, then ***!POPStar*** will give you details of what it's been doing in that from selecting Menu-Show Log.

Everything seemed fine, until the morning of Friday 20th May. I saw ***!POPStar*** pick up the emails, but !Pluto ignored them - saying no email had arrived. Horror! I checked ***!POPStar's*** log, and it said it had indeed picked them up! So where were they? I phoned Paul Vigay, who told me there was little way I could find out where they were from from his end. I phoned Jonathan Duddington (***!Pluto's*** author) who's always very helpful, and he told me after a few checks that the emails had not arrived in ***!Pluto***. He also deduced that they must have been picked up by something else! I remembered I had more that one installation of ***!POPStar***, and mentioned this to him. He thought it highly likely that this could be the culprit, so this necessitated installation and subsequently a review of another piece of software.....

FileMatch

Directory
http://www.drobe.co.uk/archives/ftp.uni–stuttgart.de/pub/systems/acorn/riscos/util/fileutils
file: filematch.zip

FileMatch is a useful command-line utility that will search for files matching criteria. It installs on the icon bar, and select clicking it gives a window that claims to run a * command for every file found. A task window opened and every file on my hard disc was reported! I didn't understand this, but looked at the very informative ***!help*** file (not on the installed iconbar icon), and used this instead from the command line. I ensured the help file was visible before I pressed F12 for the command line.

Using the information in this I ran the following command to locate my missing emails:

FileMatch -o 1 -d thisday -r

This gave me a list of filenames

(-o 1), all created today (-d thisday), and in all subdirectories (-r). From that, I found my missing emails in RComp's ***!DialUp-*** which I seldom use in the folder -!Dialup.Apps.!PopStar.MailDir. Spool.Mail.Text.

I moved this to my 'active'!Popstar.MailDir.Spool. Mail.Text, and debatched successfully in ***!Pluto.*** Sorted! Once again I changed this ***!POPStar*** application name to !OldPOPStar (perhaps Tom Jones?) to prevent it being picked up again!

WimpBar2

web page:
http://www.shot–of–adds.co.uk/wb2/index.htm

Download:
http://www.shot–of–adds.co.uk/wb2/wb2v167.zip

I use a tool along the top of my screen called ***WimpBar2***
During the course of my work it generated the error:

"No room for
function/procedure call"

Which sounds like the old BBC Micro's really unhelpful "No Room" error, where nothing, but nothing, seemed to be retrievable from the system, a bit of a bummer when one had spend two or three hours typing in a program listing from a magazine, and hadn't saved it to tape! However, good old RISC OS had no complaints apart from this message!

This error occurred despite the fact I hadn't changed my choices file. I looked at the version details and realised the program was very, very old - version 1.15 (7th September 1996)! I searched on the web for another version and found version 1.67 of 13 January 2003 (which was a mite newer).

A lot of things have been improved in this version as compared with my elderly v 1.15. Instead of merely menu-clicking on the bar on the top of the screen to get to change the 'choices' file, you now have to click menu-Configure-Choices. to get to the same and once your file has been saved, you have to issue menu-Configure-Reload, rather than the simple menu-Reload on the

older version. Also the clock's moved over to the right, rather than the left of the menu bar!

Additionally, you can now incorporate icons into the drop downs, and also on ROS 4.02 the WimpBar will appear over any running applications (a la RISC OS taskbar) if you leave the mouse pointer at the top of the screen long enough.

To use the icons, they need to have been "seen" by the filer. To this end I had to add a whole load of entries into the 'Boot' section (under the #BOOT) title in the Choices file in order for the icons to be seen as the proper ones, rather than an unknown '!' Applicaton icon. In some cases I have created 'shortcut' obey files to run multiple programs, and I found the best way was to run these was to copy the obey files into a separate folder with the obey file's name being the same as the program - eg to run ***Fresco's*** shortcut obey file - I renamed my obey file to be !Fresco so it would have the right icon. You obviously have to 'boot' the relevant master program initially to pick up the icon.

I then no longer needed my long-winded 'Filer_Run.....' for the programs - instead adding a '[!s]' - !=application, s=use sprites, after the menu name will give the icon. eg.

Fresco [!s]
ADFS:$.Apps.!Fresco (instead of
Filer_Run ADFS:$.Apps.!Fresco)

Likewise, there's a shortcut to open directories so I replaced my 'Filer_OpenDir...' statements with the following:

Open ARMClub [d]
ADFS:$.DTP.ARMClub (instead of
Filer_OpenDir
ADFS:$.DTP.ARMClub)

!Reporter

In my boot up sequence I was getting a task window flash up for only a few seconds without knowing what it was telling me - I'd glimpse something like 'DOS/RISC OS file'. Like a PC, it hid the desktop for a second while it ran. It annoyed me so much I decided to find out what it was. Looking on the internet I found a program called ***!Reporter*** that seemed to fit the bill.

The ***Stronghelp*** file in ***!Reporter*** was useful in

determining how to use the program. I dived into the BootLog folder and after copying ***!Reporter*** to the boot sequence, following the instructions in the help and the !RunNew file (for new !Boot sequence), apprehensively I ran the file; it did as it said it would and updated my !Boot. I'm apprehensive about doing things like this as similar PC files can often do more than they say they do!

After doing all this, I changed my !Boot.!Run file to add the following (as specified in the help):

```
Set Boot$Dir <Obey$Dir>

RmEnsure Reporter 0.00 RUN
ADFS::HardDisc4.$.Trialing.Report
er.!Reporter
*reporton
*reportcmdon
*reporterron
*reporttimeon
```

On rebooting, ***!Reporter*** gave a pretty Mode 3 style window with blue backgrounds to run commands, and red to displayed errors - though my occasional CDFS error didn't appear. It all shot past very quickly, but I noted the approximate time my 'problem' program occurred. I found it necessary to turn off every reporter feature in a separate Obey file outside of the !Boot sequence - otherwise it continues reporting!!

Reviewing ***!Reporter's*** task window, I noted that about the time my problem program occurred there was one command line - which was the program I was interested in :

```
<Win95FS$Dir>.!DoMap
<Wimp$ScrapDir>.Win95.mapping
```

My worry about picking up a virus was dispelled - this was a Warm Silence Software's ***Win95FS*** program. It's still in my boot sequence! I then replaced the save !Boot.!Run file and ran ***!Reporter's*** !RemNew to extract it from my !Boot sequence - sorted!

Product Reviews

RISC OS Select 3 issue 4

The Editor takes a look at the new version of RISC OS available now on CD

To install this version of RISC OS Select you must already have RISC OS 4.00 or higher installed on your computer.

Installation is very straightforward, though as a precaution I did a back up of my !Boot on to an external hard disc first. The whole installation only took me about 10 minutes including running ***!DiscKnight*** to ensure that the harddrive on my Risc PC was free of errors.

To start installation you need a copy of ***!SparkPlug*** or similar to unzip the directories. There is a

version of ***!SparkPlug*** supplied on the CD if you haven't got a copy.

Then you double click on the install icon and you're away. Installation for me was pretty painless and I soon had my new version of RISC OS up and running.

When rebooting the first thing you notice is a new screen with a red Select logo which goes through a similar booting routine to RISC OS 4.00. In fact Risc OS 4 starts to load and then Select takes over. This does add some six seconds to your bootup time. Select gives you a new up to date !Boot.

Select now gives you the option of booting from different drives (including boot from CD) and can be accessed by holding down the shift key while powering up.

Multiple users are now also catered for and there have been many changes to Boot configuration including prettier window decorations with a new IconSetUp Configuration Tool.

There is now an improved version of ***!Paint*** which has had a major overhaul to cater for some of the new features of Adjust, including alpha-channel sprites. ***!Paint*** can create sprites with alpha-channels, add an alpha-channel to an existing sprite, and allow editing of the alpha-channel. You can now JPEG export from ***!Paint*** and import PNG files. ***!Paint*** is now loaded from Hard Disc rather than ROM.

!Draw is also now loaded from harddisc. ***!Draw*** can now import any type handled by ImageFileConvert where the type can be converted to a type which is handled natively by ***!Draw***. This means that PNG files, Artworks, BMP and other images types can now be imported. ***!Draw*** can export simple SVGs (W3Cs vector graphic format).

Many more small changes have been made to the above and to applications like ***!Edit***, ***!Change FSI*** etc. too numerous to mention. The documentation on the CD comes with 9000 word file listing all the changes since 4.0X.

For anyone wishing to upgrade from 4.0X and not wishing to install new ROMs this is certainly a very painless way of going about it. Thouroughly recommended.

Contact details for RISC OS Ltd can be found on page 21.

The Unix Porting Project

is a way for you to actively contribute to RISC OS by having a say in what software you want to see, while enjoying support, active development and automated upgrades.

The basic idea is this: you pay an all inclusive subscription fee, and with that you get support for all the programs available from this project. You also get to make suggestions and comments on what programs you would like to see converted (or ported) to RISC OS. This project is not specifically aimed at programmers, nor advanced RISC OS users, but rather anyone who would like to see new software.

CD–ROM of current UPP software	14UKP/20.50 EUR
Regular subscription for 6 months	25 UKP/37 EUR
Regular subscription for 12 months	50 UKP/73 EUR
Regular subscription plus browser, support for 6 months (includes CD)	50 UKP/73 EUR

Include mailing address if ordering a CD–ROM.

All software is 32–bit compatible, and supports RISC OS 3.5 to 5.

Credit card payments can be made through PayPal.
See website for more details.www.chocky.org/unix/

Make cheques payable to ''Peter Naulls'' and send to:
Unix Ports,
45 Water Street,
Cambridge,
CB4 lNZ.

Send your queries, whether technical or elementary, to our Technical Help Service, by email to support@armclub.org.uk or write to the club's Merton Court address (which you can find on the last page) or fax 07020 954018.

If it's urgent you can phone 07010 708098.
(Phone and fax are at higher rates.)

Articles required for Eureka

Remember that everyone who contributes an article to the magazine will have their membership extended, free of charge, for every issue in which their work appears.

If you feel like writing an article or even a series then get in touch with the editor at:

music@wyvers.freeserve.co.uk
Or eureka@armclub.org.uk

Copy date for next issue of Eureka is the 1st of September.

Club contacts

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Benefits of membership

The national club for all users of 32 bit Acorn computers and Pocket Books

- The Club's magazine, 'Eureka', written by members, is published and sent free of charge four times a year.
- Free software to accompany articles in Eureka is available on the Club's FTP site or can be sent to members on disc.
- Free Technical Help Service. We will do our best to solve any problems which you may have, by email, letter, telephone or fax.
- Special discounts for Club members from well–known companies.
- Regional open days and shows are regularly organised by the Club. Other events can be arranged on request.
- Special offers at shows and open days.
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