

The magazine for members of

KM Club

RISC OS 2001 to see Omega at last?

> The RISC OS 4 **Select Scheme**

RISC OS plus Linux Windows alternative

> **Starting Points** for digital art



Issue 40 — Winter 2001

EDITORIAL

Omega At Last?

As in previous years, this issue of Eureka is being sent out a month early, so as to provide all the latest information on the big event of the year, the RISC OS 2001 Show, at its new venue in Berkshire.

As we go to the printers, the word from MicroDigital is that the production version of the Omega should now be ready by the second week in October.

If so, it will probably be seen first at a meeting of the RISC OS Usergroup (RUM) in Holland, on October 13th, then at RISC OS 2001 a week later.

If all goes according to plan, this should now be the time when the former Acorn market has the best chance for revival since the cancellation of Phoebe.

More new RISC OS machines could also be appearing. Although none have yet been announced other companies are known to have plans and must have been quietly working on *something* if they are going to survive when the Omega goes on sale.

RISCOS Ltd is beginning its regular program of updates with the issue of the first RISC OS 4+ CD-ROM in its new Select scheme (*see page 11*).

The possible rise of RISC OS computing comes at a time when the so-called 'industry standard' Windows is at its lowest ebb of popularity and facing legal actions at home and abroad. Alternative operating systems are openly being sought.

We don't really know what the future plans are of the hardware and software companies we now depend on. Let's hope they have the drive and acumen to seize the best opportunity we've had to show Windows users that updated RISC OS computers can offer the attractive alternative they seek.

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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Discount Offer

Among the valuable benefits offered to Club members are the discounts allowed by a number of well-known companies.

Now we can add The Really Good Software Company to the list. They are offering a 15% discount off all orders by Club Members. Just quote your membership number when ordering.

Among the software on offer is Montage Creative Fractal Art, (full price £35) which will be reviewed in our next issue.

For more information contact: The Really Good Software Company 8 Hawthorn Close Harpenden Herts AL5 1HN Tel/Fax: 01582 761395 Email: sales.rgsc@argonet.co.uk

The Linux & RISC OS Alternative

A lmost three years after the demise of Acorn there are still a great many people using their RISC OS machines, eagerly awaiting the much promised replacements. Although some have been tempted away to the Windows world for

a) Having it look after the Internet connectivity. A Linux machine can be used to provide a connection to the Internet by any number of means, for example through a standard modem, ISDN, ADSL, cable modem or a microwave link. If it's a dial-up

The first part of a new series by Mark Smith, who asks if Linux and RISC OS could be the dual alternative to Windows that so many of us would like to have.

hardware and software that is simply not available for RISC OS, a determined core are still hanging on, believing that RISC OS provides a far superior desktop environment and not wanting to support a huge multinational, often accused of abusing its position of power.

But let's face it, there is an increasing amount that you cannot do with any currently available RISC OS machine — maybe using a combination of RISC OS and Linux is the answer?

So why would you want to run a Linux machine along side your RISC OS one? Common uses might be: connection, it can be configured to establish a connection on demand.

It can also be used to act as a mail and news server. This avoids tying up the RISC OS machine with lengthy debatching and news expiry operations.

A Linux box also makes an ideal router for multiple desktop machines. You could have a Windows PC, a Mac and a Risc PC all connected to the internet through one connection and a Linux box.

b) You can use it to connect to a wider range of peripherals. For example, I

use mine to connect to an Olympus digital camera over USB, but the pictures still appear in a Filer window on the Risc PC just as though the camera was connected directly.

c) You can use it to run software that you could not run on your Risc PC. I occasionally run a browser on mine to access sites that Oregano cannot. You can even run some Windows applications under Linux using a tool called WINE (which stands for WINE Is Not

an Emulator, in case you were interested!), though this is still under development.

If you so wish, the same hardware may also be used for running both Linux and Windows, though not at the same time!

Hardware Options

So there are several good reasons why you might want to set up a Linux box, but how do you go about doing it?



The Linux penguin

Well, first of all you need the hardware. Depending on how adventurous you are feeling, the size of your budget and whether or not you already have a PC knocking around you can do any of the following:

a) Use an existing PC if you have one

b) Purchase a PC

c) Purchase the parts and build your own.

Option (a) is almost certainly the cheapest. You don't even need the latest high spec PC to do it depending on your requirements, an old PC that wouldn't be up to running modern Windows software still makes a perfectly adequate Linux box. This is especially true if you just want it to look after your Internet connectivity, use it as a router, connect additional peripherals and/or run text based programs. As a minimum, the processor must be at least a 386 and you must have 16MB memory as an absolute minimum for most recent distributions, but I doubt that will pose too many problems these days!

If you don't already have a PC, purchasing parts and making your own can often be more cost-effective. This is especially true if you use a competitive supplier and don't require extras such as Windows, bundled software, a monitor and any number of other 'freebie' extras.

However, one thing to bear in mind is that not all hardware may be compatible with your chosen Linux distribution. So before you buy anything, it is wise to decide which distribution you are going to use and then check.

Distribution and Support

There are many different distributions of Linux to choose from. All are based around a standard Linux 'kernel' (the core of the operating system), albeit at various different versions. However, the extras that come with it will vary. Since many of these extras are the key to installing and running a working system, there can be wide variations between the different builds (such as ease of installation).

My system is based around an installation of Red Hat Linux v7.1. Red Hat is well regarded and has been around since the very early days of Linux, so it's a reasonably safe choice. You'll also find quite a lot of books which specialise in how to set up Red Hat, some of which even come with the distribution on CD-ROM.

For the purposes of this article, I'm therefore going to assume that you are using Red Hat, though most will apply equally well to other distributions.



Linux distributors since the early days

1) Buy a book

There are a number of good books available that will guide you through the process of installing, setting up and using a

Linux may be installed by a number of different routes, but the easiest way for most people is likely to be from CD-ROM. Linux itself is freely distributed, so in many cases you pay very little for the duplication of the CDs.

One option is to go to a web based distributor, such as the Linux Emporium (www.linuxemporium.co.uk) where you can get an entire set of CDs for about ten pounds.

The one thing that you must remember, however, is that this does not include any support, so if you get stuck you're on your own.

For anyone who has never seen Linux before, or is maybe totally unfamiliar with UNIX type systems, there are a few options: Linux system. Some even come with the installation CDs. If you decide to do this, have a flick through the opening chapters before you buy make sure you can understand what it is saying and that it is pitched at the right level.

2) Buy support

Most Linux distributors (such as Red Hat) will sell you support. If you buy a boxed set, that will often include support though it may be restricted to web based, or email support.

3) Find someone who knows

There are many Linux user groups out there. Have a look at www.lug.org.uk/

Try the Club

The ARM Club members' technical help service may be useful if you require help to set up the networking on your RISC OS machine so that it can talk to the Linux box. However, we cannot provide support for setting up the Linux machine itself.

Hardware Compatibility

Having chosen a distribution, the next step is to check whether it is compatible with your chosen hardware, or to use the list of compatible hardware as a guide to deciding what to buy.

In the case of Red Hat, the best way to do this is to have a look at their hardware compatibility website at hardware.redhat.com/.

You will need to ensure that your chosen system contains the following components as a minimum:

• A motherboard — Kind of fundamental! Most motherboards should work fine. Mine is an Abit BE6.

• A CPU — Also fundamental, the current popular choice is between an Intel Pentium or an AMD Athlon but note that you require a motherboard with a matching processor slot. A Pentium 4 will work fine, but most software will not yet be optimised to gain the maximum performance advantage. Mine is an Intel Celeron 466MHz — slow by today's standards but quite adequate for my needs.

• Memory — These days it's not worth buying memory in small quantities; 256MB SDRAM DIMMs currently represent the best value for money. However, 64MB will more than get you a fully working system, albeit a little slow with memory hungry GUI applications.

Make sure you buy memory which is compatible with your motherboard and processor. Some may require high performance RDRAM, whilst SDRAM comes in 66, 100 and 133MHz varieties and must be at least as fast as your processor bus speed.

• A video card — Even if you're only intending to use the Linux machine as a server on the end of a network link, you'll still require a video display to install anything. Unless your motherboard includes a video output that means buying a video card. Pay particular attention to compatibility with XFree86 if you wish to run GUI applications. Mine is an ATI Xpert '98 AGP card — the same as is supplied with the ViewFinder card for Risc PCs.

• A network card —If you want to link your new Linux machine to your RISC OS Computer, this is by the far best way of doing it. You'll obviously also require a network card in your RISC OS machine as well, unless you have a RiscStation where Ethernet is built in.

My card in the Linux box is a 3COM 3c905C PCI card. In the Risc PC I have a second hand I-cubed Etherlan 500 card (with soft loaded StrongARM compatible driver). These days twisted pair (or *10BaseT*) ethernet is far more popular and available than the old thin ethernet (aka *10Base2*).

For twisted pair, you will normally require an ethernet hub which connects to each computer (and two cables), though a cross-over cable is an alternative if you only have the two. You must, however, have one or the other.

• A CD-ROM drive —Essential for installing Linux from CD. There are

other ways, but this is by far the easiest. It may be worth considering a DVD ROM drive or CD writer instead —it's now possible to buy Linux magazines with DVD ROM cover discs.

•A floppy drive —You may get away without a floppy drive if you can get your system to boot from CD. But beware that you may have problems getting this to work, even if your motherboard BIOS claims to support it. If you can't boot from CD and you have a completely blank hard disc, you won't be able to boot the machine at all without a floppy drive.

• A hard disc —A full installation of any of the latest distributions should easily fit within a couple of Gigabytes, so buy a hard disc that accommodates the amount of data you are likely to want to store on it. Mine is a 13.5GB IBM hard disc.

To avoid complications, go for an IDE hard disc and connect it to the motherboard hard disc interface. SCSI has it's advantages, but you'll need an interface card and this may add complications to the setup (not to mention cost).

• A keyboard, mouse and monitor — In most cases you can share these with your RISC OS machine. Cheap switch boxes are in plentiful supply but many will result in a blurred display at higher resolutions. Some of the more expensive boxes do give good results, however —look for those which state the resolution they're good for.

Alternatively some monitors come with two sets of inputs so you can connect both computers to the monitor and just use the switch box for the mouse and keyboard. The second set of inputs are often BNC connectors, so you will require a different type of monitor lead, which you will have to buy anyway.

For the mouse and keyboard you will require four male-male PS/2 cables to connect the switch box to the two machines. A7000(+), RiscStation and Microdigital machines all use the same type of PS/2 mouse as used with modern PCs. However, Risc PCs (along with all earlier Acorn machines) do not. One option is to have two mice —the other is to use a PS/2 to Acorn mouse converter such as Stuart Tyrell's PS2MouseMini or Castle's PS2Pipe, but in either case you will have to buy a PS/2 mouse. It is also worth noting that all Acorn machines which pre-date the Risc PC also use a different type of keyboard. In these cases, you will probably have to buy a PS/2 keyboard for the Linux box and have two keyboards.

• A case and power supply —Don't forget this as you won't be able to use anything without one!

You may wish to consider other extras such a sound card, but nothing else is essential for a basic working system.

As a guide, you should be able to buy all the essential items for less than $\pounds 500$, though that will largely depend on how fast a CPU you opt for. As a starting point, look at a reputable web dealer such as Dabs (www.dabs.com) and go from there.

Until next time...

That, at least, should be enough to start you thinking about the possibilities. In the next issue, I'll cover some of the key issues in installing Linux and point you in the direction of some useful RISC OS software.



RISC OS Select is the new subscription scheme from RISCOS Ltd to deliver improvements to the operating system over the next two to three years. Rather than the old Acorn model of wait a few years and get a new ROM set, Select aims to

What it's not

Before explaining what is covered by the Select scheme, it is easier to say what it is not. There has been quite a bit of controversy and vehement argument from a very vocal minority on the newsgroups, that Select does

As RISCOS Ltd launches its new Select scheme for the periodical upgrade of RISC OS 4, David Ruck looks at the details and gives his views in the first of two articles.

break with this tradition and provide soft-loaded components installed from CD-ROM or downloaded from the Internet.

This allows updates to be supplied more regularly, expected to be up to three times a year, and will give subscribers the choice of installing the latest stable build, and/or trying out new features which are in the beta test stage.

In this article, I aim to sum up what Select will provide and how it fits in to the overall development of the OS that is needed to ensure the future of the platform. not tackle either of the two main issues, 32bit and hardware independence, that are seen as the biggest barriers to the future of RISC OS.

Firstly 32bit. RISC OS currently uses a mode of operation of ARM processors called 26bit, referring to the fact that the program counter uses 26bits of the 32bit register, the remaining bits being used to store the processor status flags. This mode is compatible with the original ARM2 on which RISC OS was introduced. However, this limits programs (but not data) to the lower 64MB of the 4GB memory map, so later ARM processors employ a different mode of operation. In 32bit mode the program counter uses the entire 32bit register and the status flags are stored separately. All processors from the ARM6 to the StrongARM, including the ARM7500 have allowed either mode to be used but newer, faster, processors such as the ARM9 & 10, and the Intel XScale (StrongARM2) have dropped support for 26bit mode.

The crunch

This is where the crunch comes. If faster machines are going to be introduced, RISC OS and every single 3rd party application and module has to move to 32bit. While all new components and any rewritten as part of the Select scheme will be 32bit compatible, large parts of RISC OS remain 26bit only and the Select scheme is unfortunately too small to provide sufficient funding to employ the software engineers to tackle this substantial task.

Some funding would have to come from developers of machines based around 32bit processors, such as the Omega, which will feature an XScale in addition to a StrongARM. However, Micro Digital claim that it will not require a 32bit version of RISC OS to exploit the new processor, a claim that is greeted with some incredulity.

Another consideration is that Pace (who bought the Acorn workstation division) have been working towards 32bit operation on their set top box variant of RISC OS, which is based on developments somewhere between RISC OS 3.7 and 4.

The good news is that with the exception of some modules such as ADFS (set top boxes don't usually have hard discs) that there is a working version of 32bit RISC OS.

The bad news is that Pace are not just going to release the work of 20 software engineers over the past two and a half years to RISCOS Ltd free of charge. The figure that has been mentioned is in the area of high six digits, plus additional work would be required to integrate the many improvements of RISC OS 4 and Select that their version does not included. This unfortunately puts it beyond the means of the RISC OS market at the present. We can only hope that more favourable terms for



an exchange of technology between Pace and RISCOS Ltd can be agreed in the future.

The second issue is hardware independence. Since its earliest days RISC OS has been closely tied to its support chips for handling video and interfacing with memory and other hardware. All RISC OS machines feature VIDC and either MEMC and IOC for Archimedes series or IOMD for Risc PC's. A7000s, RiscStation R7500s and MD Micos all feature the integrated ARM7500 processor that contains VIDC and IOMD. While this dependence on these particular chips remain, any new faster machine has to try to emulate these chips with their own custom logic, which has been a source of great difficulty to both the Imago and Omega projects, and has contributed to their continued delays.

What is required is for RISC OS to follow the model of other operating systems and have separate replaceable drivers for all aspects of hardware control. This would enable cheaper mass produced support chips to be used, such those in the Chalice CATs board. However, again the limited resources of the RISC OS market mean that RISCOS Ltd is unable to fund this work unaided by the hardware manufacturers who are seemingly unwilling to co-operate at this time. Even Pace have not achieved full hardware independence with a proper driver model but have instead produced ports of RISC OS to specific alternate hardware. This just means replacing RISC OS's reliance on one expensive set of custom chips with another cheaper set, which may not remain cheaper or available in the future and so does not solve the problem.

While those two issues are of major importance and the immediate outlook for their resolution seems gloomy, as substantial funding and increased co-operation between various parties will be necessary and both are lacking at the moment, they are not show stoppers. Instead of halting all work on the operating system until they can be achieved, there are still many areas where RISC OS can be improved and enhanced.

Some might describe this as fiddling while Rome burns, but there are people using RISC OS every day that can benefit from the improvements being made to the OS on their current machines, while 32bit and hardware independence are only of benefit to purchasers of new machines, which have so far failed to reach the market.

What it is

So what does Select contain, are there substantial improvements, or is it the opposite of death by a thousand cuts or life by a thousand sticking plasters? Well, a bit of both. Many of the substantial improvements are beneath the bonnet: improving reliability and performance, introducing new networking features such as DHCP, or providing API's (application programmer interface) to allow enhanced programs to exploit new functionality. However, there are a great many changes to the user interface and method of configuring the computer.

While some of these will seem quite trivial, in the same way as the improvements of RISC OS 4.0 over previous versions showed, they greatly benefit the interaction with the machine.

Softloading OS

After installing and rebooting, where the usual predesk messages appear on the start up screen, the words *Softloading OS* will appear for a few seconds (depending on disc speed) before the machine automatically reboots for a second time and comes up in the new OS. This does not add more than four to five seconds to the boot up time for ADFS systems, but slightly longer if you have a 3rd party IDE or SCSI interface which checks for drives on start-up, as this now has to be done twice. On some people's systems, boot up can actually be faster, as there is no need to load lots of separate module from the filing system, as they are all contained in the ROM image.

Prices

There are a number of different prices for the scheme depending on what OS you already have and how you would like to obtain the upgrades, plus differences for non EU customers. See the information box at the end of this article or check on the RISCOS Ltd website for full details.

So is Select value for money? It seems rather expensive when compared to previous OS upgrades from Acorn but unfortunately in a small market we have today and without any hardware sales to subsidise it, RISCOS Ltd have to charge a realistic price to be able to pay software engineers to do the work. The nature of the scheme, delivering the upgrades on CD or over the Internet, rather than with expensive ROM sets, does mean that the vast majority of the subscription is going where it counts, to making RISC OS better.

In the next issue I'll take you through what you are likely to notice using RISC OS 4+ over what you expect on the current version of RISC OS 4.

RISC OS Select Price (annual): £105 Foundation members: £99 Without CDs: £85 With RISC OS 4 upgrade: £179 (for first year) Sites (over 10 machines): £300 (All prices include VAT) Supplier: RISCOS Ltd **3 Clarendon Place** Cardiff **CF23 9JD** Tel: 02920 492324 Fax: 02920 492326 Email: sales@riscos.com Web: www.riscos.com

DrawWorks Third Millennium

When APDL took over all the software previously distributed by iSV, the latest version of DrawWorks, the bolt-on addition which adds so many extra features to Draw and is perhaps the major product in the range, existed only as

As before, it comes on a CD-ROM containing a whole suite of associated but self-contained programs as well as DrawWorks itself, which is now at version 3.08, dated 20 July 2001. My favourite of the others, Mr Clippy, with the singing skull logo, has been

DrawWorks, now taken over by APDL, reaches the Third Millennium with another long list of enhancements, as Peter Jennings reports.

an upgrade. This version in itself was remarkable as it was an upgrade to DrawWorks Millennium and DrawWorks New Millennium, both of which had appeared within a year.

Now APDL have celebrated their acquisition by issuing the first full stand alone version of DrawWorks Third Millennium.

This works on all versions of RISC OS from 3.1 and is designed to do so on all future versions currently planned. It is faster than the previous Millennium versions and reduces the processor load of previous versions by more than 50 percent. upgraded to version 2.01 (26 August 2001). The others: FontFiend, Professional Typography Expert and FontNames, are all the same versions as supplied with the New Millennium edition. The directory of PD *Bolt Ons* has the same contents as before and there are also the familiar directories of Clip Art, Font Tools, Utils, Demos, Examples, Work Sheets and Vivid, the graphics enhancer for non Risc PC computers.

There is still the familiar on-screen manual, which could always be printed out at the expense of much time and paper, but the first, most notable, addition is a 54-page comb-



bound printed version with illustrations in colour. A very welcome and rare accompaniment to a CD in present days.

Here too, APDL have not been content to stay with what they were given. The manual has been expertly 'subbed' to give it a less wordy style in places and make it easier to read. When you load DrawWorks the first noticeable addition is on the top row of the main toolbar, where the buttons all open new sets of tools on the second row. Clicking on the new icon toggles open a new *Micro Toolbar* housing the most commonly used DrawWorks buttons (*above*). The Micro toolbar can be dragged anywhere you want it by clicking on the left side end. It can be removed with the tiny *close* icon at the top left corner but it is easier to toggle it off with the button on the main toolbar used to open it.

A less obvious option added to the main toolbar is the choice of horizontal scrollbars (as before) or automatic scrolling when you move the pointer to either end. This is one of three new features on the Preferences menu. The others allow you to open the Micro toolbar with a new Draw window and to force DrawDA compatibility.

More new features appear when you open the Style toolbar. This now has two nudge buttons to change line start cap and end cap triangle sizes, which also now have writable options.

The fun toolbar, officially known as the DTM Special Toolbar, has also gained a new icon: the *Distort Object* button. When you select a vector object and click this button a new window, the Object Distortion tool, opens containing the graphic. Clicking on the object in this window produces a red outline with handles at the corners and sides which enable



The square (top) gets the Special Toolbar's new Object Distortion tool treatment

you to drag it into new shapes. Additional objects to be manipulated can also be dragged and dropped into the tool, which has its own mini toolbar with zoom, save and delete buttons. If you feel more artistic than that there is now a secret tool on the Draw toolbar which allows you to indulge in some freehand sketching. It appears as the familiar curved line tool and reveals its secret when you select the tool then hold down ALT and F to go into freehand drawing mode.



The secret on the Draw toolbar



The Path Moulder can now go 'Wobberly'

Among other new tools are options to export as SVG and PDF (using GhostScript) files. Improvements to other file handling include a double click on an EPS file to load it into Draw and correct rendering of unclosed objects in Adobe Illustrator. There's an improved export tool for JPEGs and GIF files can now be exported with NetSafe colour palatte.

There are a number of new features for the improved handling of text, including automatic extraction from text objects and the ability to export all text objects from a drawfile into one text file. A Text Area control tool includes font and point size and margins, line and paragraph spacing, and the number of columns in a text area can be quickly and easily changed.

Some new moulds have been added to the Path Moulder, which can now handle group moulds, and the Shadow Tool now auto groups all soft shadow layers.

Once again, it is a major upgrade for an already extremely versatile utility.

For a full list of the new features see next two pages.

Changes in Third Millennium

Main New Features

Compatible with future versions of RISC OS.

Works on all versions of RISC OS from 3.1 onwards.

Faster than any previous Millennium version of DrawWorks.

Over 50% less processor load than any previous version.

Autoscroll or manual scroll toolbars.

Autoscroll toolbars now move much faster.

DrawWorks toolbar now stays on screen whenever a Draw window is open.

All features now work with !DrawDA.

New microbar with commonly used features.

Line width, colour, rotate and scale options always available.

Font and pt size menus always available.

New Tools

Export as SVG option.
Export as PDF option (using GhostScript).
Writeable options for start cap and end cap menus.
Nudge buttons for start and end cap triangle options.
Freehand drawing mode.
DWDistort tool to distort objects visually by dragging.
Extract the text from text objects automatically.
Export all text objects from a drawfile in one text file.
Text Area control tool including font and point size.
Change the number of columns in a text area easily and quickly.
Set margins, line spacing and paragraph spacing for text areas.

EPS Improvements

Double click an EPS file and it loads into Draw. Unclosed objects render correctly in Adobe Illustrator

Improvements to existing features

Export GIF with NetSafe colour palette. New moulds for the path moulder. Path moulder can now handle grouped moulds. Shadow tool auto groups all soft shadow layers. Start cap and end cap menus tick to show current selection. JPEG export tool improved. Re-designed preferences window. Nudge buttons no longer 'stick' in down position.

General

Tested on RISC OS 4 and !DrawDA.

A number of internal routines have been optimised for use on non StrongArm machines.



DrawWorks Third Millennium Price: £39 inclusive (Outside UK + £2 postage) Site licence: £79 Upgrade from Millennium or New Millennium: £19, Site Licence: £29 Upgrade does not include printed manual, available separately for £7.50 (outside UK £9.50) Supplier: APDL 39 Knighton Park Road Sydenham, London SE26 5RN Tel: 020 8778 2659 Fax: 020 8488 0487 Email: sales@apdl.co.uk Web: www.apdl.co.uk

Making The Most Of An Old Acorn

This article has been written on an old A3000 using a copy of Publisher, although I have Microsoft Word on my PC. By writing this on the Acorn it is an extremely useful way of showing you what can be done on an old machine.

stuck down into the floppy drive and parts of a pencil case stuck down the ventilation slats on top of the case! Yet ten minutes of cleaning later the machine booted up and was purring like the day it was first switched on.

Student Matthew Price can't afford a new RISC OS machine but, as he explains, there's still plenty of life in some of the old Acorns now being thrown out.

There have been two events which compelled me to sit down and write this; first my personal experience on making the most out of my A3000 and secondly the sheer number of old Arcs being sold on eBay from both private sellers and schools making the transition to PC clones. I myself acquired my A3000 from my old school.

Acorn built their machines primarily for the education market, and as a result the machines were designed to last years in one of the most demanding computing environments, the classroom. Upon getting my A3000 home, I found half a pencil

Your basic Archimedes in the A300/A400/A540 range will come with a PC style desktop case, a double density floppy disc drive, RISC OS 2 (or in some extremely rare circumstances Arthur), ARM 2, and a bare 1 or 2MB memory. With such a dated machine, even by Acorn standards, the only way you could possibly get any kind of use out of it is by buying upgrades, which in this day and age should not cost you much all. Look eBay at on (http://www.ebay.co.uk) and search for 'acorn', there are even several Acorn newsgroups to post Wanted notices (newsgroup addresses will be stated later).

To upgrade a bare A300-A3000 I would advise getting hold of RISC OS 3 at the very least, and if you have only 1MB RAM an extra meg could make all of the difference. Unfortunately only machines such as the A7/5/4000, A3010, A3020 and Risc PCs can support high density disc drives, without serious work, which I won't even risk trying as it involves soldering on the motherboard.

Another good source of upgrades and even spares is to cannibalise other Acorns which are beyond repair. In 1994 shortly before I started secondary school my parents bought me a shiny new A3010, which ironically lasted until just after I'd finished secondary school. I was without an Arc for about 18 months until, after much persistence, my IT teacher gave me one. Although I had been hoping for an A3020 I was not disappointed with what I got. It was an A3000, ARM 2, RISC OS 3 with 2MB RAM and a CUB3000 monitor. The first thing I did was to pry my RISC OS 3 ROMs out of my A3010 just in case something went wrong. The memory was totally incompatible, and my hard drive had been trashed by a friend about a year earlier. Within a week I'd posted on comp.sys.acorn.hardware asking if anyone had any old 2.5" hard drives and interface cards for sale. For £10 I purchased a 40MB hard drive with a RISC Developments IDE Interface card. If you go to Castle Technology (the current builder of A7000s and Risc PCs) an interface card would set you back around £30 and an 80MB hard drive around £20, so as you can see although the equipment was old, it was still a bargain.

Several years ago in an issue of Acorn User there was an article written by an IT co-ordinator at a secondary school on how to upgrade your basic A3000 to become suitable and competitive in a learning environment. In my opinion for nostalgic users, first timers or just retro-gamers the following is an absolute minimum for any machine below the spec of an A5000: RISC OS 3, 2MB RAM, ARM250 and a hard drive of at least 80MB, unless you are planning to create a network. Instead you can get cheap second hand etherNet cards for around £20 (also see Paul Vigay's networking guide at www.vigay.com).

Once the hardware is sorted, what can you do for software? Well for starters download Acorns Universal Boot sequence, now available in the FTP archives at RISCOS Ltd. (www.riscos.com), this has been designed to run on any Acorn with a hard drive (5MB space) and RISC OS 3.10+ (but not RISC OS 4).

The !Boot sequence will use up more memory than booting without it but you do get benefits from it. The most obvious are the visual improvements. The !Boot sequence comes with the enhanced tool sprites from RISC OS 3.5 and a newer, soft-loaded (that is, it is a module file loaded into memory from disc) version of the Window Manager. There is also the random wallpaper generator ripped from Acorns !NewLook application from several years ago. Finally, newer Templates are included. These are also from RISC OS 3.5+, such as the new Error Message window, info boxes and disc operation windows.

I won't go into much depth about the inner or 'under the bonnet' improvements having the !Boot sequence loaded do, but there are several nice features it brings. First you have if you look the Hook directories by shift double clicking Boot versions of the staple ROM applications (!Edit, !Paint etc) from later versions of RISC OS, although I would not recommend using them/ The !Paint, !Edit, !Chars, !Alarm, !Squash and !Draw I use are from RISC OS 3.5. They take up more memory, but obviously have neater features. Secondly !System, !Scrap and !Fonts are inside the !Boot application instead of being unsightly icons on your hard drives root directory. You also get the !INet configuration application allowing you to connect your old Arc to a PC using TC/IP protocols. Finally, something which I find really neat is the ability to place applications inside Resources: \$. Apps (the ROM Apps folder).

This is useful for placing your most commonly used apps at a convenient place, although putting the actual application in there is unwise, several applications have the ability to create shortcuts to programs (such as in Windows), one being my own !ShortCut (as featured in Acorn User August 2001).



It's neat being to able to put your most used applications in Resources

Out there, on the large resource sites for Acorn software (one of the best being Paul Vigay's links database (at www.riscos.org/links), many freeware programs are around to make your life with your old Arc easier. Below some of the best are listed and briefly described.

Split (Adam Hamilton)

This program can run on any number of platforms, including a DOS based PC, RISC OS and UNIX. Simply this program will split a single file into smaller chunks for transfer via floppy. Because of its multi-platform design you can split a file on a PC and reassemble it on your Arc. You can also choose the density of your disc or even customise the chunk sizes further.

www.blastzone.demon.co.uk/software .html

StrongHelp (Christian Ludlam)

Fast becoming the favourite application help system and includes many manuals for Acorns, such as a cut down version of the PRMs and ARM Assembler. This is a hypertext based system, much like a webpage links from page to page are established. Get it, as you will need it at some point along the way.

sudden.recoil.org/stronghelp

VZap (Paul Vigay)

VZap is a shareware virus killer. As shareware you can use it unrestricted but you are required to register if you intend to run it for a prolonged period of time. VZap is simply the best nonsubscription virus killer around. Although there are few new viruses appearing for the Acorn, there are hundreds already out there, especially Icon and Extend, which are in many archives obtained from FTP servers.

www.vigay.com

VProtect (Pineapple Software)

This is a smaller freeware module, best included in your boot sequence. When loaded, if it detects a virus in an application you will be notified and the application will be frozen from interacting with the system, such in the case of the icon virus, the infected application will not Filer_Boot. The VProtect module does not remove viruses.

www.pineapple.demon.co.uk

ZipEE (John Pettigrew)

This useful app will create and extract PC Zip files. Simple as that, it's freeware and extremely useful for extracting files from PC archives. www.xl-cambridge.demon.co.uk/risc os/zipee.html

Commercial software is available, such as SparkFS from David Pilling, but for the casual retro user I'd stick to the freeware. There are also many specialist packages around for the Acorn but again I'd rather use my PC than stretch my A3000 to its limits just to type a letter (Publisher came from school, so I'm not a hypocrite!)

Finally for games. There are so many games, both native and conversions out there. Some are still commercially available, some are freeware but for your best bet running an old Acorn is to check out eBay or post to the newsgroups (comp.sys.acorn.games) as there are a lot of people out there willing to sell. I found a low density copy of Flashback (I have the high density discs but could not use them!) for about £5, no box or manual, but I already have them.

A large proportion of games for the Acorn, especially the old Amiga conversions such as Cannon Fodder or even the PC game Wolfenstein 3D were designed to run on older Acorn machines, as the Risc PCs were just coming out. So you're bound to find many games to play! Just remember 1MB may only just be enough to run some games, and not enough for others.

A final thought about people using old Acorns, a while ago on a newsgroup someone once took great offence to people posting there asking questions relating to older Acorns and commented on how in that person's opinion people like myself were damaging the RISC OS industry by sticking to older computers.

I totally disagree with that as the simple fact that so many people are buying old Acorns, which after even a decade still work, is a testament to Acorn's great designs.

After just finishing my A-Levels and going to University in September, my A3000 will stay home, but not forgotten, especially through the use of Acorn emulation for the PC (www.red-squirrel.org).

As a poor student I just cannot afford a new Acorn, I can't even afford to upgrade my two-year-old PC! People who use Acorns are not damaging the industry simply because they are not interested in a new Acorn. By and large they want a cheap, useable, Acorn to play around with and. with a bit of trickery and knowledge. you can make an old Acorn great again.

The Acorn platform is not dead by any stretch of the imagination and older machines are probably still more in number than Risc PCs, particularly for schools as they were designed for them. Many people buying these old Acorns after using them in school have little idea of what can be achieved from them. I hope this little article has given you some good ideas!

Parent Power Can Control Internet

The desire to write this article was inspired by a whole bunch of brain dead rantings in the tabloid press about the dangers of children using the internet.

so you buy the lad a modem.....

...And he shuts up! Miraculous. You get time to yourself and to talk to the partner and it's all wonderful. Then

Teacher Chris Price offers a plan for parental power to control what children see on the Internet and reveals a contract which can replace attempts at censorship

OK, so you've just got in from work and all you want is a drink and to watch the television. The next thing you know your lad's by your side bending your ear about the Internet and how cool it is and how great it would be if he had his own modem *dedah...dedah...dedah* find answers to homework without having to badger you and Mum *dedah....dedah.... dedah* look up a whole bunch of cool sites on his favourite pop stars and his football club *dedah...dedah....dedah.*

Well, you haven't understood a blind word of what he's been babbling on about. After all you can barely turn the computer on, never mind *log on*, or whatever the strange process is called, but it sounds harmless enough, you start to get a bit suspicious about *how* quiet it's actually got and creep upstairs to see what has engaged your son's mind.

Horror of horrors! When you open the door he is definitely engaged in using the Internet — but the site he is visiting is clearly nothing to do with the homework on Anglo-Saxons he brought home nor has it anything to do with his project on the rain forest. He is staring, quite openly, at a picture of a *very* naked lady!

You've heard all this before as it has featured very prominently in a number of the sort of *Shock! Horror!* stories that fill the rather more sordid end of the tabloid press. In its defence I would simply make two points:

(1) The Internet *is* a very useful source of information *if handled properly*.

(2) Despite what certain luddite tendencies think (and, in some respects, clearly hope) it *isn't* going to go away.

The purpose of this article is to examine those two propositions, and their implications, as deeply as possible from a child friendly perspective. Much of what follows is *not* rocket science —just (I hope!) plain common sense.

Let's start with that first point. 'The Internet *is* a very useful source of information *if handled properly*.'

The Internet is populated by all manner of people and it is a regrettable fact that, like society at large, a (mercifully) small proportion of them are deviants and/or criminals —and you don't want your child to meet them or associate with them.

However, to access information on most topics you have to have the address (URL) of the site you want and, if you are doing research, the one thing you won't necessarily have is that URL. So you will have to use a search engine.

The problem with search engines is that they are entirely non-selective. You just type in a keyword and they go and fetch all the sites with those words in it, depending on the frequency with which those sites are "hit". Those registering the greatest number of hits go to the top of the list. Sounds simple? Well it has its snags, as the following short anecdote will show.

As part of my role as a teacher I use the computers to help the children research topics they are doing with their class teachers. This work is, of course, always prepared in advance. On this occasion I was glad I did.

The topic was *Aztecs* — not you would imagine the most controversial of topics. However, in the context of this story, you would be wrong...

I typed in the keyword 'Aztec' and hit the Search key. After a few seconds the results came back and I was very

Aztec Calendar new

Aztec Calendar. Shows you the current date according to thetonalpohualli, the sacred Aztec calendar. Gives a reading of the significance of the day and the relevant gods. Found by: AltaVista, Open Directory Project, Excite, FAST Search (alltheweb.com), MSN Web Search http://www.azteccalendar.com/ | 92% | Translate

• Aztec History Mexico - The Aztecs of Mexico and their history new

Aztec history - Aztecs of Mexico and their history. Religion, culture, medicine, language, with help for students and teachers.

Found by: Excite, FAST Search (alltheweb.com), HotBot, Yahoo!

gratified to see the legend 'Z number of sites found' and the information that it was now displaying the first 20 of these with their synopses.

Then my face changed as I read the synopsis of the first site. Now I don't recall the exact wording (and, No! I didn't visit the site either!) but it said something like, 'Aztecs —Gay and Lesbian site for contacts in the San Francisco region'. The next half dozen sites were similarly lurid. It was only when I got to about fifteenth on the list that I actually found something on Mesoamericans.

Imagine if I hadn't researched it and waited to do that while online with the children!!!

Some of the right Aztecs were found

So, what to do?

There are, as far as I can see, three areas to deal with: the physical environment, the moral environment and the technical environment, by which I mean:

(1) Where we put the computer

(2) How we deal with it on a moral level

(3) How familiar we are with the way it works.

Look at number (1) Where we put the computer... Dumb question, eh?

Then go back to the beginning of this article and think again. Generally we are dealing with a largely teenage phenomenon and teenagers are strange creatures —I was one once (but it was a *long* time ago) —their hormones are starting to kick in and they are experiencing all manner of weird and wonderful (and, often, not so wonderful) things going on in their minds and bodies.

Because they are often more familiar with it than their parents, the computer tends to be 'their thing' and it migrates with them to their room, which is where our problem starts.

So rule number 1 is: Put the computer in a place where everyone can use it! When you do this make sure to couch the idea in a positive way. *Don't* say: "We're putting it here because I know what a mucky minded little so-and-so you are and I don't trust you as far as I can spit!" *Do* say:"We're putting it here because this is going to be a family tool and we're *all* going to learn how to use it.

Your children aren't stupid. They'll cotton on quickly enough to the fact that one of the reasons for the computer being in a communal area is so that only the 'right sort of stuff' can be accessed but, if they are reasonable, they will accept the validity of the idea that there are some sites that *none* of you will want to visit, and there are very good reasons for this.

Right, now we've got the computer in the living room where everyone can look at it and use it to access the 'net. So let's move on to point number (2).

How do we deal with the computer on a moral level?

You've already made a good start by proclaiming that the computer is for everyone. Now we have to set up a framework for correct usage. You may be quite happy with a chat about the dangers of the Internet and an informal agreement with your child(ren) about the hazards and pleasures of using it, but most people (certainly most schools) prefer a written contract, signed by both parties.

The one I use most is that produced by Yahoo! and, while it is rather 'cheesy' from an English point of view, it makes the obvious points well and I make no apologies for reproducing it, in its entirety. (*Over page*)

Yahooligans! Family Pledge for Online Safety

As a family we make the following promises about our time spent on the Internet:

Me: _____

(Child's name here)

____ I agree that I can only use the Internet between _____ and _____ (times of the day) and for up to _____ hours each day.

____ I agree that an adult needs to be around while I'm online.

____ I wouldn't even think of giving out personal information about myself or anyone in my family (including names, pictures, addresses, telephone numbers, email addresses, name or location of my school) to anyone I meet online - no matter how nice they seem - without my parents' permission.

____ I will not respond to anything online that makes me feel uncomfortable or scared. Instead, I will immediately share the message or web site with my parents or teacher.

____ I will keep one secret: my password. I won't even share that with my best friend.

____ I will not meet in person anyone I've only met online without my parents agreeing and accompanying me.

____ I promise to treat the people I meet online as I myself like to be treated.

____ I will share with my parents the cool stuff I find online. (After all, they want to enjoy the Internet, too!)

____ I will keep these promises whether I'm at home, school, the library, or at a friend's house.

Okay. Now, Parent(s):

____ I will explore the Web with my child and communicate clearly my expectations regarding where and how he/she can use the Internet.

____ I will make valiant efforts to keep up with with my child's Internet expertise, and I will allow my child to teach me new online tricks!

____ If my child does find something online that makes him or her uncomfortable, I will immediately follow up with the source of the message or with my Internet service provider. I will understand that my child is not to blame for SPAM.

____ I agree to help my child find cool kid stuff online, whether it's for homework or for plain old fun!

Signed on this Date: _____

By the following extremely COOL SURFERS:

Child:

Parent:

As I said before, this *is* rather cheesy and I'm not sure that I, for one, would want to be described as a 'cool surfer' but the points are well made. (By the way, I don't believe in *surfing* which I have banned at our school. If children want to look up something specific, then all well and good. Surfing which is, by its very definition, done for the heck of it, is, in my opinion, a sign of a dormant mind in search of mischief!)

Pornography

So what has our contract done? Well. first of all, it has made both parties aware that there are some sites out there that we really would rather not find —pornography is the first topic that springs to mind —and the child is specifically enjoined to inform an adult if he/she comes across information that makes them feel uncomfortable. Just as important, the issue is now out in the open. Junior now acknowledges that you are as aware of the problems as he is and are, therefore, equally aware of the possibility that he may try to access sites of a dubious nature.

From a positive point of view, it also neatly takes into account the possibility (which *has* occurred on several occasions) of a paedophile infiltrating a chatroom, and advises the child of what to do in the circumstances, what information he/she can and cannot give out in such circumstances etc.

Perhaps just as importantly, it requires the parent to sign the other half of the contract, giving a clear indication that adults are as exposed to the temptation/threat of such material as the children. From the point of view of fairness this is, I would argue, quite important. After all, how would little Johnny view it if, after giving him a stern lecture on the perils of Internet pornography, he crept down for a late night glass of milk only to find you hunched over the computer, leering at naked bodies?

And did you notice that second parental pledge? 'I will make valiant efforts to keep up with my child's Internet expertise, and I will allow my child to teach me new online tricks.'

Now we're getting somewhere! And we can move onto point number (3). How familiar are we with the way it works? This, I believe, is the central problem for most adults. Why? Let me take you back to when we were all teenagers (and female readers will, I hope, forgive me if I use the perspective of a male). About the age of 12 or thereabouts, we start to discover the opposite sex, and most (boy) teenagers are introduced to the dubious pleasures of the pornographic magazine.

Problems

As a lad trying to acquire one of these documents I faced two, quite obvious, problems. Firstly, I was too young to acquire one legally and so had to enlist the help of an older sibling who could pass for 18. This had two drawbacks in itself. First, if you found the wrong person he could either keep your money and not supply the goods but blow your cover to your Mum, or just keep the money and blow your cover to your Mum. In the worst case scenario it was the latter and you ended up with no magazine and being grounded for X number of weeks and minus the pocket money it took to buy the absent magazine!

Second, this limited your opportunity for purchase as any of your older

friends claiming to be 18 whilst wearing school uniform had *no* chance of succeeding. So the deed had to be done 'after hours'.

Concealment

Even assuming you acquired the requisite magazine, you now had the problems of concealment and, ultimately, disposal. Traditionally, concealment was under the mattress but that place of refuge never seemed to last long and you were always prone to 'Stop & Search' in the briefcase if Mum (or Dad) grew suspicious. Disposal was less hazardous but was always prone to the drawback that selling the magazine on to your mate would result in him being found out and, by way of trying to mitigate his suffering, fingering you as his supplier!

(Readers of my previous articles for the Club magazine will know that I am prone to these digressions. Others may assume that I have gone completely off my chump and am now wittering senselessly. However, the short digression was made with a very good purpose in mind.)
Back to that sentence 'I will make valiant efforts to keep up with my child's Internet expertise'. Do you? Have you? If your child asked you to log on and access the children's section of the BBC website, could you? And, if not why not?

Under the mattress

The point I am seeking to make is this: the balance of power has now shifted towards the children and it is this that has most adults worried. In the 'good old days' I hid my mucky magazine but, not being very inventive, chose an obvious place (under the proverbial mattress), Mum found it, I got tumbled and received a thick ear and three weeks stoppage of pocket money as my penance.

Children nowadays, if they are minded to follow my route won't go out to WHS to buy their magazine, they will, if they have the equipment, access it electronically. Some of the URLs are short enough to be memorised so they won't even have to have them listed on their hotlist. Should Mum/Dad come in then it's a quick flick of the mouse up to the hotlist and *Naughty Nell's Saucy Pics* swiftly becomes *The Life of the Aztec* *Indians* or something equally innocent and Mum and Dad are none the wiser!

More to the point, Mum and Dad may know or think that something untoward is going on but, because they remain technologically ignorant, can't prove anything! And, if Junior realises this, then the balance of power has very much shifted in his favour.

Had Mum and Dad bothered, they would have found out that it is a relatively easy task to access the history of the past few hours to see who has been looking at what. They would also have discovered that there are a number of fairly simple ways of disabling access to unsavoury sites from *NetNanny* type products, which are added to your proprietary software, to simply going into the menu on the icon bar and finding out how to stop access to unsavoury sites (generally by supplying a list of words that the computer has to look for each time a site is accessed).

My old tutor at university always used to say "If you can't say something positive —then *shut up!*" and I have dwelt overmuch, perhaps, on the negative side of things and will now try to be as positive as possible and suggest some ways of encouraging proper use.

Yahooligans

First of all, find some sites that are specifically for children. Yahooligans, though American in content, is a good one which will give you access to a wide variety of suitable sites. Argosphere is another good one and is English, to boot.

Yahoo! itself can be used but I would advocate caution. A little research will yield more that suit your purpose. Get your children into a good routine. The children I teach know that I'm going to make sure that they filter any information through Yahooligans and will happily chant the URL "http, colon, back slash, back slash, www dot yahooligans dot com!" before dissolving into gales of laughter.

The point to make here is that we have reached something akin to an armed truce. I *know* that, given enough unguided time on their own, they would possibly head for something unsavoury. However, I have demonstrated that I know that they know and, perhaps more to the point, I have the knowledge to backtrack and find out what they have been doing or, better still, stop them from doing it. So they don't even try.

At the end of the lesson I trade good behaviour for a period where they can go off and look at sites that they have nominated at the beginning of the lesson. Pokemon and Charlton Athletic are generally the favourites for boys, while girls favour a variety of pop stars with (to me) strange and unlikely names. (Younger readers should be advised that I gave up pop music when the Beatles split up. If you don't know who they are then ask your parents!).

Britney Spears

Nonetheless, finding out that Britney Spears, for instance, likes chocolate milk shakes is, I am advised, fascinating. More to the point, from my point of view, it's harmless!!

Readers will now have gathered that (apart from going on too long!) I advocate very much a pro-active approach. There are people (even governments) who advocate the banning of the Internet or, at the least, draconian controls.

This approach, I believe, is simply not feasible and will, in any case, engender a spirit of lawlessness which merely encourages people to take such matters into their own hands. They will then access the Internet if only to see what they have been missing but, given that they will now be feeling disenchanted, may decide to visit unsavoury sites out of a spirit of pure rebellion.

On a personal level, banning Junior from using the 'net, or refusing to buy a modem because 'the Internet is a bad thing!' will simply mean he goes down the road to his mate whose Mum and Dad take a more relaxed view of these matters and, at that point, he's out of your control and you are powerless to stop him doing whatever he wants, be it legal or not.

And then don't be surprised if he *does* feature in the News of the Mail under one of those Shock! Horror! banner headlines.

It is far more beneficial from everyone's point of view that you learn, and learn together, in a spirit of mutual trust. Encourage your child to bookmark his/her favourite sites, even if this does mean you having to look at endless trivia about Britney Spears and B'Witched. Sooner or later (sooner if you play it canny!) he/she will come to you and ask to use the machine for his/her homework or research and he/she will bookmark a more useful site.

At that point they should start to understand the Internet and its uses in its fullest sense and you should find yourself with no more problems —if you did encounter any in the first place.

So, if you are a parent, then screw up your courage and have a crack at the 'net. It really isn't that difficult and it can be fun and interesting.

And if you're a younger person, then let Dad or Mum onto the world wide web once in a while. It isn't their fault that they're old and they do want to see what's been fascinating you all this time. It could actually be fun teaching them to navigate the mysteries of the WWW.



Got something you can say in verse about RISC OS computers or computing? If so, send it to The Editor by email to eureka@armclub.org.uk or by post to the Club's usual address on page 80.





How to get there... By road



Take the M4 to Junction 10 and follow the A329(M) signposted Bracknell. Take the first exit left Coppid to the Beech roundabout. signposted Binfield B3408. Continue straight the over next roundabout, through the traffic lights to the following roundabout. Take the second exit and then first left into Wood Lane. The Centre is located at the end of the lane on the right.

By rail

There is a frequent train service from London's Waterloo Station for the 15-minute journey to the main line station at Reading, from where there will be a free shuttle bus to the Show, running every half hour on Saturday and hourly on Sunday. At Reading Station, head towards the lower numbered platforms and the Brunel Arcade shopping area (not the car park). Leave through the main doors, to the side of W H Smith. The shuttle bus will leave from the far side of the road outside, next to Gregories Cafe and on the opposite side of the road to the taxi rank.

The buses, operated by Burgfield Minicoaches, will carry RISC OS 2001 signs.

How It Got Organised

S ix months ago the nucleus of the show organising team met to consider RISC OS 2001. This had an air of inevitability about it, after all RISC OS 1999 and 2000 had been resoundingly successful and had

mounting the show, and hence the price charged for the stands, was high. Exhibitors loved the crowds but the magnitude of sales needed just to cover expenses made it financially marginal for many exhibitors.

John M Sawer, who has played a big part in the complex business of organising the Show, explains how it was all done in time by a dedicated team of volunteers.

proved there is a real demand for a major show in the South to complement that held at Wakefield.

The ARM Club not only supplied many of the organising group but agreed to use the 'profit' from last year's show as a float to get things rolling. Other members were drawn from the local user groups, SASAUG and ROUGOL, also Neil Spellings of the AAUG.

The first task was to decide on a venue. The Queen's Stand at Epsom Racecourse had been used as a venue for the last two shows. This prestigious location had given great credibility to the show but the cost of Epsom had increased their prices significantly for 2001 and this effectively ruled it out as a venue. What was needed was a location with good transport links, enough space for a large show plus theatre, allied to reasonable costs.

Toby suggested the Blue Mountain Centre at Binfield near Bracknell (and not far from Toby in Reading) and this was agreed by the group.

Having visited the centre a couple of times, I was pleasantly surprised how smart, spacious and light the exhibition and conference centre is. It is on one floor, which should make life a lot easier for exhibitors and helpers alike (unloading Chris Evans's shop should be much simpler!).

The Blue Mountain is primarily a golf centre with a surrounding course and range. Car parking is more than adequate if it is raining and the golfers don't turn up. Otherwise there may be pressure on the space available, especially with exhibitors' vans occupying 20 or 30 spaces. The Blue Mountain people say you can park in the drive but a better solution is to use the train to Reading station from where shuttle buses will run a regular free service (see page 42).

Early on there was a disagreement about the financial structure of the show and two of the ROUGOL members 'took umbrage' and resigned. This made the rest of us more determined to press on and make a success of the show.

One invaluable addition to the team is Neil Spellings. He has set up a show web site www.riscos2001.com and another for exhibitors. The presence of a show site enables visitors to access details of the show venue, travel details and exhibitors that have signed up. Visit it now! Exhibitor liaison is being handled by Ralph Sillett and Matt Cook. This has proved an uphill battle, since many companies in the RISC OS market are not making much money, and some (such as iSV) have fallen by the wayside. This means they are not very forthcoming about committing themselves to stands and even less keen to part with money.

Ralph has commented that his ear has acquired the imprint of a telephone!

Two new members of the group that have looked after venue organisation are Charles Barraball and Tim Powys-Lybbe. Sadly, Charles has recently suffered a stroke, but I am glad to report he is making an excellent recovery. Much of the spade work had been done before Charles had his problem and Tim has made a fine job of sorting out the inevitable last minute queries.

Publicity has been the responsibility of SASAUG and we have once more been aided by Chris Hornby of Photodesk, who has created the adverts for the last three years' RISC OS shows.

Bubbles, balloons, balls

In 1999, the advert had bubbles with various exhibitors' logos wrapped around. In 2000 we maintained this vein with balloons floating over the Queen's Stand. This year, for the Blue Mountain golf and conference centre, it just had to be golf balls!

Rob Brown has been looking after the shell scheme. It was debated whether a shell scheme is necessary since it is one of the highest individual costs in the show organisation. It was decided that to abandon the shell scheme would lose a lot of the show's identity and add to the greater individuality of exhibitors.

Tickets and passes are being looked after by Toby Smith, while David Ruck is organising first aid and shuttle buses.

Dave Lane (of SASAUG) is drumming up helpers and has got an impressive list already. However, if anyone else wants to volunteer (especially on the Friday) I am sure Dave won't turn you away.

Simon Burrows is looking after the financial side and last, but far from

least, we have Mark Smith who took over as chairman.

Without Mark, I do not think there would be a RISC OS show. Not only was he the moving force behind the1999 show but he played a major role in the organisation of RISC OS 2000. Just when he thought he could take a back seat he took over as chairman when the previous one resigned. His quiet determination has stood us in good stead through the odd period of turbulence.

Free on Sunday

In the last issue we listed some of the exhibitors. The list is constantly being updated so visit the web site to get the latest situation. We have the venue, the shell scheme, transport and exhibitors.

We now only need visitors, so don't miss your chance to visit RISC OS 2001 and show your support for the RISC OS platform.

Remember, ARM Club members can get in free on Sunday.

www.riscos2001.com

Maze Grid

By Roger King

Complete the word maze below by filling in the answers to the clues opposite, in the order they appear, starting at the right-facing arrow.



The clues...

South American mammal (5) A hot pepper sauce (7)Man-eating monsters (5) Garden pest (5) German measles (7) Seaman (3) Self-service store (11) Cold dish of vegetables (5) Bomb that fails to explode (3) Nude (5)Witticism (3) Meadow (3) Public telephone box (5) Equipment, tools (3) A felt or woollen cap (5)Horrific (13) Dwarf or goblin (5) Bowdlerize (7) Bottomless gulf (5) Mineral spring or watering place (3) Terrorist group (3) Golfers' clubs (5) Edible bivalve (7) Depression (5) Sugar substitute (9) Mother of pearl (5) Capital and chief port of French Guiana (7) Pouch or bag-like structure (3)

A large, vertical fishing net (5) Unit of radioactivity (5) Sea fish (3) Became more distant (7) Hospital worker (7) Largest artery in the human body (5) A passage between rows of seats (5) Mistaken (9) A book containing maps (5) Large, powerful snake (3) Flat breakfast roll (3) Bohemian dance (5) British colony in NW Atlantic (7) Precious stone (5) Fast water transport (9) Household insect (9) Drinking vessel (3) Interfere (3) Tibetan ox (3)Badminton accessory (11) Female pig (3) Splitting tool (5) Unit of work (3) Strap, or strip of leather (5) Childrens' game (3) Relating to the stomach (7)

Complete the maze? If not, you can see the solution on page 71.

You Just Have To Ask

Getting help	OS to comp.sys.acorn.hardware.		
Question:			
I'm an absolute beginner into the	The main differences of the		
ARM world, and I try to get	StrongARM over the ARM7 series		
information about the ARM	are:		
processors series. First of all, I would			
like to know the best way to ask the	• Harvard architecture, with separate		
Here are some of the ques	tions which members have		

asked our Technical Help Service and the replies received from our experts, co-ordinated by David Ruck

ARM community to answer my questions ?

And one of my first questions is: what are the fundamental differences between the ARM and StrongARM processors ?

Thanks for helping a little "froggie!"

JCD

Answer:

Programming questions should be addressed to the comp.sys.acorn.programmer newsgroup and issues relating to ARM based hardware running RISC 16K instruction and data caches (The main source of incompatibility with previous processors as it prevents self modifying code from working most circumstances)

• Improved eight entry write buffer containing one to 16 bytes

• Pipeline increased from three to five stages, with implication of the value of the PC in certain instructions which changes from the current location +12 to +8.

• Fast 32 and 64 bit signed and unsigned multiply instructions.

• Performance improvements to various instructions.

• Burst reads not performed on non cached areas

Buffer overflow

Question:

Machine: Risc PC SA OS4.

Fault : one directory is inaccessible due to "buffer overflow".

This is rather catastrophic as the directory contains all my PC partitions —normal and back up.

Is there any form of disc recovery software that might help?

Charles Hope

Answer:

Use the free checking version of DiscKnight at

www.armclub.org.uk/products/disckni ght/ to check if there is a problem with the disc.

Bad memory

Question:

In 1996 I bought a new Risc PC 600 with 32MB SIMM, 2MB VRAM, 8 speed CD, 500MB disc drive and a 5x86 card. When StrongARM became available I upgraded and at the AU show in October 1999 I replaced the disc drive with a 10GB model, upgraded to RISC OS 4 and added another 64MB of memory.

As far as I am aware I had no hardware faults although I made the StrongARM upgrade, memory upgrade, OS upgrade and swapped over the hard disks myself. I have no electronics or technical knowledge just followed the instructions.

One of the applications is DataPower which has been upgraded as updates became available. Until a few months ago it had only been used for a very simple database with one table and only manual updates.

At that time I started to follow Julian Fry's DataPower articles in Archive, going right back to the beginning and keying all his examples. Whilst doing this DataPower seemed a little unstable to me and, as Julian's main project is an investment database I remarked on this to him, but drew no reaction.

Nevertheless I had heard that some applications conflict and made sure that I had logged out of all others.

It got to the point where I wondered if I had a hardware fault since I had heard of timing problems with components in computers. I was about to try to find a local service centre when it struck me that removing the 64MB memory card might have an effect. So I took it out, removing a little dust at the same time.

This was about two weeks ago and since then I have had no DataPower crashes; I have also noticed that I have not had any problems with my AntSuite either.

Can any tell me if this is all just coincidence, or whether there is sufficient to warrant a thorough examination?

Paul Oates

Answer:

Your setup with a StrongARM, PC card and two SIMMs is typical of those that may experience timing problems. These are due to the effect of the whole system in combination rather than any one particular component, and may only occur after changing any piece of hardware, including OS ROMs.

The easiest solution as you have found is to remove one of the SIMMs. You have removed the 64MB, but may also experiance no problems removing the 32MB.

This will of course be more useful, as you will have more memory. However if you want to be able to use both SIMMs, a modification to the machine is necessary.

As your machine is an early RPC 600 it is likely that it will have the C32 capacitor fitted. This was an oversight by Acorn, left over from a prototype system, and degrades the bus signals which will exacerbate timing problems.

This can be removed without too much difficulty, by following the instructions on the www.aleph1.co.uk website.

In many cases this will completely eliminate timing problems, and will not have any adverse effects even if it doesn't.

If this still doesn't alleviate the problem, you will need to seek help from a service engineer who can make other changes to your motherboard and processor cards.

Pinboard problem

Question:

Can you please help me diagnose what module might be failing during the banner display stage of my RPC's booting?

An RO4 error message (App may have gone wrong) comes up after the RO banner, requiring cancelling. The desktop then loads everything correctly on the Iconbar, but Pinboard colour and pin-ups are absent.

The Colour is not adjustable via the !Boot config window, and no files are pinnable.

**St.* shows all configs as normal. **Romm.* indicates Pinboard as active.

The RPC bombed out in the middle of creating a Draw file from Riscript, but that of course may be coincidental.

Recently I added:

- two new HDs
- a Plextor SCSI CD
- 128MB EDO RAM
- Podule 0 ViewFinder
- Podule 1 DMI 50GX
- Podule 2 Blitz
- Podule 3 Acorn SCSI

All cards are working corectly. Blitz is demoted, ADFS does the Booting in 30sec as opposed to the 1min 20sec for the Blitz. The 287Mz SA has worked like a dream these last six months.

At this point I'll mention another small glitch which pre-dates the above crash.

It was last week that I got one of the new HDs to do the booting under ADFS. It worked fine from the start, but after a day or two an error message came up during the banner display: 'M22 token not recognised'. When that was clicked away everything loaded normally. This still comes up first, before the 'App gone wrong' message. In 'Resources — Open '\$', IDEFS has some 'Ms' but not 22. *But* ***ADFSFiler — Messages has an M22***.

The only other thing at the time of the 'App gone wrong' error was Vantage had been in use. I have had no end of failures from that program. It collapses upteen times a session doing things that are so easy in ArtWorks. Following the manual learning how to do things —it just refuses to produce what's shown in the manual! So something is wrong in this direction, but it appears not to be. I would be grateful for any advice on what to look for next.

James (Mallorca)

Answer:

The error messages are a known problem with IDEFS, it generates an error for which there is no associated textual message. Contact APDL for a later version of the firmware. connected to the Pinboard problem, as it's not loaded. I'm afraid that the pre-release versions of Vantage were still very immature and very far from bug free. This is improving with each release. ArtWorks had similar problems when it was first released.

Let me know if the pinboard fix fails to work.

Psion problems

Question:

I have a Psion 5mx which has just reset itself twice in two days while I was on holiday resulting in a total loss of information.

I have a RiscStation with psiFS. How can I put information from a Pipedream 4, CSV or ASCII file into the psion in a format which it recognises?

I used to have the use of a PocketBook 2, and I have a diary file backup on floppy disc, I can load this into the psion but it says the file is not recognised.

Any suggestions?

Andy Burgon

Answer:

The reset problem could be a lack of batteries, especially backup, or a loose connection. It might be worth a refurbishment if it keeps doing it (try Pinnock Organiser Services in Streatham, London).

Transferring ASCII should just be a matter of copying the files onto the Psion, then doing a special open in Psion Word. Ditto for CSV to data or 5 Sheet. Pipedream files might possibly be savable as CSV of Lotus 123 format.

The Pocketbook file needs a conversion. Try either a friend with a PC (and your copy of PsiWin from the 5 box), or if all else fails mail it to me and I'll push it through my copy.

RISC OS 4 and DiscKnight

Question:

You've probably come across this chestnut before but as someone relatively new to RO4 it's got me puzzled.

Basically I have two problems and I don't know if they are connected:

1) If I double click on !Boot I get the following error message: 'Internal Error, no stack for trap handler: Internal Error: abort on data transfer at &0382053C, pc=6382053C; registers at 0000F1F8'

2) If I try to drag a window around the desktop it happens exceedingly slowly.

I am a registered user of DiscKnight and for the want of something to do I used it to check the disc and I have the message 'Disc is Good'. At the moment I am using DiscKnight v1.21 as Smartgroups won't allow me to access the site to upgrade to v1.29.

I double checked that I was a recognised member and that I was using the correct password but all to no avail.

Is there any other way I can get the upgrades?

Gerald Cobbe

Answer:

1) As you are using RISC OS 4, have a look in the directory IDEFS::HardDisc.\$.!Boot.RO400Hoo k.Res.Configure. Have you put any third party configuration tools in there recently? You may want to replace the contents of that directory and !Configure in the one above with the original copies on your RO4 CD.

2) This could be because of the backdrop image you have configured. Is it JPEG image by any chance or a scaled sprite? These are rendered on the fly and can be quite slow, it may be better to convert the image to a sprite of the same size and colour depth as the screen you are using.

If its not this, it could be another application running in the background.

Download !APPstat from www.armclub.org.uk/free. It will display the amount of CPU time that each running application is consuming and will identify any hogging the system.

Regarding DiscKnight, the message 'Disc is Good' is just what you want to see!

If you can't get access to the upgrade try hitting *reload* on your browser



after the login screen. If that doesn't work and you are using a cache or a proxy, use your browser settings to exclude www.smartgroups.com.

I'd like to keep the website as the only method, to allow me to spend more time on development, rather than sending out version via email. The smartgroups website works with Oregano, Fresco, Webster XL, and even Browse with a bit of encouragement, so it should be possible for you to get it going. If you still don't have any luck, please provide details of your browser and cache/proxy (if any) configuration.

The Technical Help Service is free to all Club members, by email, post or fax. For urgent help in emergencies we have a mobile number. See Club Contacts, page 80.

The Omegus Family...

...getting up to speed



Cartoon by Jan Pearce

Personal Accounts

 $T_{\text{Burrell Collection in Glasgow.}}^{\text{wo weeks ago I visited the Burrell Collection in Glasgow.}$ There was a special Egyptian Exhibition on show, with an impressive time-line consisting of a

noticing the very obvious exponential way our knowledge has expanded over the last few years. Stonehenge is impressive, and so it ought to be —it took two millennia to build.

Rilla Paterson compares her days doing manual double-entry book keeping at work with the ease of Personal Accounts on her home computer

series of screens laid end to end, and each representing one millennium. At one end nothing much had happened —a few cave-paintings in Turkey, some tools in North Africa, standing stones in South America, then Stonehenge Part One, then another millennium or two and up popped the pyramids. As I worked my way along the time-line I noticed Stonehenge Part 2, more cave paintings, glass, bronze, jewellery and so on, until, in the last screen, there was World War 1.

Looking back across the room, one could not help but be completely gobsmacked by the aeons of time that had elapsed since our earliest emergence as the Wise One, Homo sapiens. Moreover, one could not help What has all this to do with a new Personal Accounts package?

Well, it seems only yesterday that I was engaged at my place of work in manual double-entry book-keeping, painstakingly separating out payments into various columns so that the company would know at the end of the year how much had been spent on raw materials, heating, lighting, consumables, and so on. Indeed, only a few years ago I computed the wages from little books called Tax Tables, and laboriously counted notes and coins into wage packets.

Now, of course, we have a state-ofthe-art invoice entry system that is totally automated, and I pay the firm's employees by squirting the wages down Barclays telephone line. The advances made by the development of computers would occupy barely five millimetres on that time-line.

Why have a Personal Accounts package? Well, most of us are interested to know what we have spent our money on, and why there's never any left. For most ordinary mortals, this consists of having to sit all evening with a calculator trying to reconcile endless bank statements with cheque stubs, but the sheer boredom of this activity rarely results in anything more interesting than revealing the accuracy or otherwise of the bank clerks.

Dreaded direct debit

And how many times have we wasted hours working out how rich we are, only to find we have inadvertently ignored the Surreptitious Standing Order, and, worse still, that hideous unknown, the Dreaded Direct Debit. (Has anyone ever noticed how the Inland Revenue always wants to be paid right in the middle of the summer holidays, and immediately after the January sales?) We finish the evening surrounded by calculations, our minds and notepads totally screwed up.

Budget and forecast

A good package, however, allows you not only to identify precisely what you have bought and when, but to budget and forecast realistically. It keeps track of all your accounts, standing orders, direct debits, expected income and expenditure, and allows you to edit it, label it, sort it, and print it out in any way you choose. With a computer package like this one, provided the data entry is quick, (and it is -wow!) we are therefore free to examine our financial arrangements in all sorts of interesting ways. What is more, there will still be the time, if not the money, for a pint in the pub at the end of the evening.

Although this is not the only accounting package I have used, it is the only one designed for home use that I have studied, and this review must be read with this in mind. These pages therefore contain my description of this useful tool rather than an assessment of it in comparison with others.

Labour-saving features

As someone who engages in great quantities of data entry at work, I would say that the key to a good package of this kind is one where the programmer has taken on board the need for speedy data entry. What you get out of it depends on what you put in, and no one wants to spend hours entering field after field of dates and payments. I am happy to say that the responsible programmers for producing Personal Accounts 4 have made the chore of data entry as light as possible, with two principle labour-saving devices:

The first is that the possibilities for customisation to individual needs has been taken to a very high level. I was immediately struck by the fact that the user can determine very precisely a large number of features, not only the headings and format of the display fields but even down to the appearance of the data entry forms, their position on screen and the fact that they can all be open at once. This means that as you alter the details on one form, you can watch them change in another, and copying data from one form to another is simplified. Printed reports can also be finely tuned to suit individual needs, and choices are saved such that on booting up next time, the user is returned to the screen as it was last left.

The second device is the inclusion of a plethora of labour-saving features which speed up data entry via both keyboard and mouse. For me, shortcuts via the keyboard are a must, and there is no shortage in this program. All the command buttons have been assigned to function keys, and the enthusiast can zoom round the desktop at great speed, making it fun to use. For mouse-o-philes, (and there are many users out there who still cling to the rodent like a comfort blanket) the drag-and-drop technique features strongly, so, having completed a particular field or data line, it is simplicity itself to dump the data somewhere else, via the mouse, without having to retype it. There are Undo and Redo keys, and Escape takes you immediately out of the present form and into the previous one. The program makes additional use of the adjust button to further expand the choices, which are many; indeed I don't remember having come across a computer program with quite such an array of easy-to-use options.

TA adfs::4.\$.!Apps.Tutorial.Demo3 : Entry 3								
BANK	BANK IN OUT 1 2 S/O BE NOTE I Accounts and Headings (De							
Date	From	1	То			Reference	Total	Description
05.08.98	B1#	*Birthday Money	1	Bank	< Account		10.00	1
05.08.98	2	Visa	a1#	*Foo	t		50.00	
31.08.98	1	Bank Account	2	Visa		0001	10.00	
								∇
		2010-21-10-2-10-0-10-0-10-0-10-0-10-0-1		-	19-14-19-19-19-19-14			
			1					N.
SORT		uto CLEAR	Find F	First	Previous	Ne>	t St	low Cursor

The Entries window — the main working tool

Finally, the structure is really quite intuitive, and I find this pleasing, although the choices available to the user are so many that one would have to use the written guide to make the best use of the program. The guide is well-presented, on the whole, except for a few typographical errors which I found a bit annoying (why do seemingly intelligent and highlyskilled programmers pay such attention to detail in some respects, and then don't bother to proof-read their stuff — "roiginal", "perrsonal", "illistration"—haven't they heard of the humble spell-checker?) The program also comes with five good demo files which contain sample data. I did find, though, that these were not really full enough. Each one is designed to demonstrate a particular procedure, but in some cases the files did not contain enough data to be able to explore beyond the particular feature being demonstrated. It would have been helpful to have one demo containing, say, twenty records which interrelate in each function so the user could have a realistic playaround.

To describe all the options, forms, dataprocessing and reports of this program is beyond the scope of these pages. However, here follows a synopsis of the overview taken from the User Guide. It describes the broad outline of the program, and I hope will give some indication as to its capabilities:

* * *

Getting started

When you first run Personal Accounts, the main control window will open. Almost everything in

	Report 1	Wed, 19 9	Sep 2001	15:00
Entries F1	Accounts F2	Income F5	Paymer	nts F6
Reports 1 F7	Reports 2 11F7	S/Orders F10	Presets	îîF10
Note Pad îF1	Calculator F11	Options îF11	Save	F3

The Control window gives instant access to all other forms

Personal Accounts can be accessed via this window, which contains command buttons. These buttons open other windows, and each also shows a keyboard short-cut which lets the user access any of the options from anywhere within the system. For example, to enter a transaction either click on the Entries button or press function key F1.

Learning the function keys will enable you to move around Personal Accounts without the need to return to the main control window each time. Another useful short-cut is the Escape key. This will close the current window and take you back to the previous one.

The hub of any accounting system is

the area which holds the user's transactions, contained in the Entries window, one long scrolling list of transactions —each one taking a single line. Day-to-day transactions are entered directly into this window.

Every entry is directly editable at all times. Entries can be sorted in a variety of ways. You can make as many entries as you like subject only to the memory limitations of your computer: (typically, 5000 entries use 1 MB of memory.)

Practically all the other windows in Personal Accounts relate to the Entries window: the Accounts window holds the balances of all accounts and these totals are automatically updated as entries are

喧	市 × Accounts						
	Name	Statement	Current	Ι	Forecast *	O/D date	$\overline{\mathbb{A}}$
1	Bank Account	100.00	100.00		100.00		
2	Visa		-40.00		960.00		
3							
-4							
-5							Contraction of the local distribution of the
6							10000
7							
8							
9							
	Totals:	100.00	60.00		1060.00		∇
<							

The Accounts window holds all the details of your bank accounts

made. Analysis of income and expenditure are shown in the Headings windows. These too are automatically updated with data entry.

This makes for a very intuitive system: if the user's bank account shows a current balance of ± 500 , it is because the entries made from and to this account exactly add up to that amount. All these entries can be seen at any time, so if they were all deleted, the balance would return to zero.

Nothing is ever hidden; there are no invisible carried forward balances. Every total is derived from transactions made in the Entries window.

Accounting procedures

The concept behind Personal Accounts is very straightforward. The best way to understand it is to consider a real transaction and how you would usefully enter it into Personal Accounts. For example, if you buy food by cheque from a supermarket this is a single transaction, but it has three main parts:

The Food (what the money was spent on)

The Cheque (where the money came from)

The Supermarket (who it was paid to)

Heport Name			
Report on all en	tries containing tl	he text 'Petrol' wi	Display Report
Save/export F	Report	File Name	Text options
		Та	bbed 🔾 Spaced (•)
Columns to i	include in report		
ate 🔽 From 🗙	To 🗙 Ref 🗸	Total 🔽 Balance	X Description
clude summary	of income & naw	ment headings used	in mont
icioue aurimary	or moorne a pay	IIIGIILIIGGUIIIGS USCU	
Entries to in	clude in report		
Entries to in Start Date	clude in report	End Date	
Entries to in Start Date From Acc/Head	clude in report	End Date	
Entries to in Start Date From Acc/Head Reference	clude in report	End Date To Acc/Head	
Entries to in Start Date From Acc/Head Reference	Clude in report	End Date To Acc/Head Total	
Entries to in Start Date From Acc/Head Reference	Clude in report	End Date To Acc/Head Total	
Entries to in Start Date From Acc/Head Reference Direct/RiscO	Clude in report	End Date To Acc/Head Total Description	Petrol
Entries to in Start Date From Acc/Head Reference Direct/RiscO	Clude in report	End Date To Acc/Head Total Description	Petrol Print
Entries to in Start Date From Acc/Head Reference Direct/RiscO	Clude in report	End Date To Acc/Head Total Description S Ton. Medium Font width: 10	Petrol Print Font height: 10

The main Report Form where you can build your own choices and the possibilities are endless

1. The Food	but as more entries are added the
With a single transaction you know	overall total will be hard to work out.
how much you have spent on food,	Therefore it is a good idea to store the

total of all 'food' transactions in a specific place. In Personal Accounts these are called Headings. If you set up a heading called 'Food' or 'Provisions' you will be able to see exactly how much you have spent on food over a period.

2. The Cheque

This consists of many sub-parts, such as the date, cheque number and amount. Before you write out a cheque (or pay for something with a credit card), it is useful (if not vital!) to know if you have enough money to pay for it. In Personal Accounts, information like this is held in the Accounts window.

3. The Supermarket

It may be useful to know how much you have spent with a particular shop. Unlike headings and accounts, this type of information is not analysed separately. Instead it can be held in the 'description' field of an entry. A report can be produced at any time to analyse this type of detail.

All of the above information constitutes an entry in Personal Accounts. The entire transaction is entered on a single line in the Entries window. Each entry tells the system where the money came from, and where it went to.

Thus it can be seen at any time exactly what the user has (or has not!) in each account and exactly how it was obtained and spent.

Finally, if you are used to traditional double-entry book-keeping the following will help you understand the concept behind Personal Accounts.

Headings do not exist in double-entry. Instead, everything is held in separate Accounts. Transactions are written into a 'journal' and subsequently 'posted' to each account. Each transaction has a 'debit' side and a 'credit' side.

If you think of the Entries window as a general journal, ignore the headings (eg. by setting up 'Food' as an account - or alternatively treat the headings as income and expense accounts), substitute the word Credit with the word From, and Debit with the word To, you will effectively turn Personal Accounts into a doubleentry system —the advantage is that



no posting is required —accounts (shown in the Accounts window) are always up to date.

Personal Accounts also allows you to group sets of accounts together, so you can group them directly into asset and liability sections in the accounts window, thereby creating a permanent and always up-to-date balance sheet.

* * *

The Guide then takes the user stepby-step through the Tutorial, using the five demo files, and giving practice in the various procedures. I was just a little punch-drunk by the time I got to the last one, but that is because this program has so many possibilities it is impossible to take them all in at a single sitting.

I have no hesitation in recommending this program. I experienced no problems installing it, using it, and printing reports. It does what it says it will do, and all the features appear to work. Anyone prepared to take the User Guide seriously by the horns could make this program really sing. There is a plug at the end for a thirdparty application called !Charges. This can interact with Personal Accounts 4, and keeps track of the time spent working on a file. Perhaps this indicates a certain confidence in the package as a professional tool. And why not?

I'm glad I was born in the twentieth century. I'd rather use this than build Stonehenge. The results are a lot quicker, too.

Personal Accounts Price: £29 inclusive Supplier: APDL 39 Knighton Park Road Sydenham London SE26 5RN Tel: 020 8778 2659 Fax: 020 8488 0487 Email: sales@apdl.co.uk

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Adults £2.50 / ARM Club or Foundation £1.50 Children under 16 FREE (accompanied by an adult) [Pay on door]				
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Starting Points - Digital Art Tutorial

This week I have been enjoying doing some digital art myself. Our local Winchester Art Club is keen to start a new section of Computer Enhanced Art in its annual Summer Art Exhibition. Consequently, I was

The starting points were stated to be all digital photographs or scanned images. This was different from my own ideas as I wanted to start from original watercolours but I guessed the principles would be the same.

Christopher Jarman enjoys a gallop through the digital possibilities on a new CD for artists (or would be artists) who use computers

asked to enter something of the sort to get the ball rolling.

So the advent of David Cowell's latest effort in this field seemed to be the wasps's elbows...

The tutorials are said to be nonsoftware specific, which sounded good as I like to try all kinds of software and in any case I am a firm believer in learning the principles of things rather than being too concrete.

This CD differs from the previous three by David Cowell in that instead of using Textease David has used *html* and a browser. The tutorial begins with a set of virtual watercolours, made from photos. While these were impressive, I felt uneasy because they did not seem to represent much skill other than those of the photographer with access to a computer.

The illustrations then led on to creative masking, scanning and the 'creative' selection of parts of photographs. This is a modern form of mixing media and collage technique, which gives very impressive and stimulating images.

When done by someone with a trained eye and the instinctive feel for layout and composition, such as David Cowell, you end up with some superb pictures.

There are sections, well illustrated, showing the results of masking, cloning and the use of textures. David explains the meanings and uses of many of the filters found not only in Photodesk but also in the equivalent programs on the PC and Mac.

This is useful stuff, as much of that arcane vocabulary is a mystery to many of us.



A dull and ordinary photograph of a street scene loses the unattractive yellow road lines and a lamp post to become the picture below





A close up photo of some tree bark (top) becomes a rocky landscape



A photo of Ben gets the digital portrait treatment

Much of the text introducing these demos is taken up with explaining how painters have always used photography and that 'No apologies are necessary'. One gets the impression that David has been attacked in the past for this kind of work and that indeed he has found that a lot of apologies have been necessary. Four CD-ROMS for a start, pus an article in the last issue of Acorn Publisher!

However, one section called *Virtual Painting Techniques* finally convinced me of the integrity of this kind of work. David has taken a photo of a piece of tree bark from Dartmoor and turned it into a completely original landscape (see opposite page). Last year I tried to turn a painting of a reclining nude into something similar and I know how hard it is, both to envisage, and execute such a scheme whether it be by hand or by mouse.

There is a Resource bank on the CD with a collection of letters of the alphabet looking like metal blocks and some textures and landscapes in *jpg* and *tif* files.

This is the fourth CD of David Cowell's that I have reviewed. I have found all of them useful, clever and



An alphabet of 'metallic' letters comes in a Resource bank, along with some textures including the tree trunk and wall below



stimulating. This one is no exception. It is not really a tutorial at all, because that would make it too dull. It is much more of a gallop through digital possibilities. These CDs are not for computer nerds; they are for artists who use computers. The strange thing is that I find all four of them gave me ideas and made me want to have a go. Nevertheless, I have not looked at them again. I seemed to get all I needed from one browse through.

If this appears to damn the CD with faint praise, it is because this makes me wonder whether they are good value for money. After all, the image manipulating programs themselves are what inspired David and will probably inspire others too.

Starting Points Price: £25 Supplier: Photodesk Ltd 1 The Courtyard Southwell Business Park Portland Dorset DT5 2NQ Tel: 01305 822753 Fax: 01305 860483 Email: chris@photodesk.ltd.uk

Did you get to the centre?

Here's the solution to the Maze Grid on page 46



Didn't you do well? Or perhaps you didn't. But there'll be another chance to test your skill with words in our next issue.
Gill's Journal: Geek Chic

In the last Gill's Journal, we concluded that it's somewhat unlikely that spods will ever be the coolest people in the world. So let's not try to aim so high.

So, what's going to make you, the spods of The ARM Club the coolest gurus of Geek Chic that digital technology has ever been owned by?

Instead of having you all turn anorexic (as well as tomato-phobic) Let's look at hair styles. And the great thing about them is, this is a pretty cheap aspect of cool that any spod,

Want to be a cooler spod? Gill Smith offers you a complete geek chic makeover. But first get rid of that nodding dog in your car or it's all just for information.

to join the ranks of ultra-skinny fashion victims, I'm going to introduce you to *Geek Chic* (say it – it works better.)

Now don't get too excited remember, we're not expecting to see this on the catwalks of London, Paris and New York by this time next year. Madonna will not be desperately trying to get hold of a copy of this article on her next UK visit. Posh Spice is unlikely to be searching these pages for next season's must-have designs. But then, fortunately, nor will Bill Gates, so that's at least a start. even within the Acorn market, can afford. One option is to grow your hair long, and tie your split ends back in a pony tail. Or, if you prefer, you can go for the 'Shaggy"-no, not like that, Druck —like the buffoon from Scooby Doo. This is the haircut that shows signs of once having been a nice smart, short haircut, tidily styled so that it does suit you. However, after many weeks of forgetting to go to the barber, it turns into the badly-in-need-of-a-haircut look, as when Toby gets particularly quiffed, and starts to look like Elvis without the hair gel.

There are dangers with both styles. The *Shaggy* can have the undesirable side-effect of getting your mother worried that maybe the wife/ girlfriend/secretary/total-lack-of-anyof-those isn't looking after you properly and she may then decide to come and visit you more often.

The pony tail can make you look like a goth. Particularly as the only cool skin colour for a geek is a slightlyglowing off white, due to reflected glare from a 17" monitor. Of course, if you happen to be a geek-goth, this is fine. If not, you might want to avoid dying your hair black. While you're there, resist urges to wear all black, and do your best not to cover yourself in too much dark make-up. Think you can handle that?

While on the subject of make-up, the only cool make-up for the chic geek on the street is none. Don't do it. Unless you happen to be female and, even then, don't over do it. Male geeks are baffled enough by you, so please don't confuse them into thinking you have some strange disease that turns your fingernails funny colours, or causes your skin to be all a consistent, even, spot free



You too can get the Elvis without the hair gel look

tone of anything other than pure white.

Now on to clothes. Yes, please do wear some. I suppose you want more than that? OK then. No shorts, ever you'd be able to land planes from the glow from the average spod's neverseen-the-sun-before legs. Jeans should be slightly baggy —as in misfitting, not the cool sort of baggy —because of your phobia of trying things on in shops. If possible, they should be older than you are.



T-shirts should be faded and have a cult sci-fi theme

And as for T-shirts, they should be faded due to being washed badly and either be something to do with a TV Sci-Fi series (Red Dwarf, Star Trek TNG, X Files) or have a series of UNIX jokes and other 'geeky' slogans. Examples are... generally incomprehensible to the rest of the population. But I'd particularly recommend 'I joined a dotcom and had to buy my own lousy T-shirt' for any of you still hoping to make your fortune in dotcom shares, along with 'Viral marketing just doesn't work tell your friends . . .' There's also the general 'The geeks shall internet the earth' and 'No, I will not fix your computer.' This sort of delights can be found all over the internet, including www.ThinkGeek.com, where they also sell girl's T-shirts. I spot something of a flaw in their market research... To complete the spoddy outfit, there are various options. Glasses that react to the light are useful to ensure that the world doesn't suddenly get brighter and confuse you. Compulsory is a belt, to which can be attached all or any of a pager, a mobile phone, a handheld organiser/ computer, and a penknife complete with a cross-headed screwdriver.

Music is an important part of being cool. Having analysed the recent trend in music styles, including a friend expressing a preference for 'kitchen' music ('house' and 'garage' apparently not being specific enough!) I've decided to help make sure you ultra-cool geeks lead the way with a new style of your own. This will be generated, of course, by computers. I'm sure there are programs that can do it. I'm still considering exactly what this music trend should be called. Given the craze for naming musical trends after buildings, gradually getting smaller, I can't decide between 'carport' music and 'shed'. Preferences on a postcard to...

Suggested band names include the ultra-cool '19 degrees' (server room

temperature) and 'Mr Clippy's Demise' for those of you who have ever had to use MS Word. But the odds on favourite for a number one hit has to be 'Binary' with their album 'How about hex?' and hit single '010111010100101011'. Sadly, I think The ARM Club Committee are a little too old to form a boy band for you all to support. And besides, Mr Chairman singing is almost as bad as me doing so. I wouldn't wish a duet between us on my worst enemy. Or even Microsoft. Ah well, perhaps that's not an issue —I wouldn't get into a boy band and, anyway, the Committee won't be a vocal band. No, they'll all be on keyboards.

Geek Chic also involves a whole slang for spods. Like Ali G, no one who isn't in the cool gang should be able to understand a word of what a cool geek is saying. Now you could claim to be 'gettin down wi da boyz in da sever room', or 'hangin wi da code monkeys', but I think there are better ways for geeks to baffle those less cool than themselves. For starters, a good discussion about preferred network routing systems and the pros and cons of various broadband providers can lose all but the most 'happening' spods. However, there's more to it than that. Would you know enough to be offended if someone describes your personality as '404' (missing)? Could you find your 'file mangler' if you needed to? Perhaps you're cool enough to be 'ambimousterous'?

If you're old fashioned enough to think that 'Black Thursday' is merely something that happened on Wall Street in 1929, think again. It was in 1998 that Acorn cancelled all future machine production, causing a wave of depression to spread rapidly across...several geeks. Since that day, the internet dotcom bubble has also burst. leaving many 'Marketroids' jobless, to the great delight of all true techies, who had suffered years of pointless colour changes and redesigned logos purely at the whim of a new marketing manager, who wanted to look as if they did any work. Sometimes these cosmetic changes are easy to deal with. But occasionally, they're 'decidedly non-trivial' (complicated to the rest of the world.) and might involve 'code monkeys' (no, no explanation of that!) working really hard. Of course, once they have made the changes the 'Lusers' (computer 'Users' with an 'L' plate) won't actually notice. Which was what the highly knowledgeable computer gurus and 'wizards' expected anyway.

For 'hysterical raisins' (historical reasons) or possibly laziness, a lot of computer knowledge is about understanding the abbreviations and acronyms that abound on the internet. These include WYSIWYG (what you see is what you get); YAFI-YGI (you asked for it —you got it); AFAIK (as far as I know); LOL (laugh out loud); ROTFL (roll on the floor laughing); RTFM (read the 'friendly' manual); IMO (in my opinion) and various versions of IMO, including IMHO (in my humble/honest opinion) and IMNSHO (in my not so humble opinion.) So if you can drop those into any conversation —real or on the web. that would be marv (marvellous). If you aren't cool enough to understand them, well, that's just trag (a tragedy). I'm sure I've missed plenty more acronyms, but I think we can probably all live without them for now.

Don't forget, of course, that the exact slang, and details of your particular

brand of Geek Chic depends on which gang you want to be in. It'd be awful if you happened to be a UNIX geek, and got stuck in a gang of network geeks. Now that would be foolish. You'd end up in all sorts of bizarre and baffling conversations. (As if you don't already!) And if you know any NT geeks, be really careful about letting them in the gang. While of course, any other geek is better than a non-geek, if you're an 'Ops' (operations) or Sys Admin (System Administrator) geek, then you are a whole different level of geekdom from code monkeys and way above web designers that we don't even bother to come up with a funny name for. But be nice to all other geeks in public. They're still way better than PHBs (Pointy Haired Bosses —a phrase from the Dilbert cartoon (www.dilbert.com) meaning any pointless managerial type) and less terrifying than Marketroids. Geeks are the best you'll get, as far as 'Cow-orkers' are concerned (another Dilbertism: Co-workers, with the hyphen slipped!)

Film 7D1 (2001 in hex!) —the geekiest films to be seen at a cinema near you! Well, OK, not the current

films, or you'd only be able to have a life for a few days this month. I'm going to be much more helpful and generalise. A big No-No is anything to do with computers. Lovely as Sandra Bullock might be, having her dashing at high speed around secret bases and breaking into their computer systems by getting their password at two guesses —it's just annoying. Anything involving sevenyear-old children breaking into the Pentagon's main system, discovering the distressing news that aliens do exist, and then saving the world from them by a carefully created computer virus...just no.

OK, you are excused going to see 'Tomb Raider' just for Angelina Jolie, (pretending, of course, to see how well they've made it, compared to the PlayStation game) so long as you make a faint attempt at general culture and go and see Nicole Kidman in Moulin Rouge... I'm presuming half-dressed women count as an attraction to see a film? (For the girls, there's Ewan McGreggor!)

The coolest of films for spods to be rushing out to see —and in terms of TV entertainment too —has to be



Moulin Rouge for your attempt at culture

had things worked out differently, instead of getting rid of bugs in accountancy software, they could be chief techie on the next big animation film. Go on, own up, who wouldn't have liked to have worked on 'Shrek' or the amazing 'Walking With Dinosaurs'? In spite of this optimism, and the 'Making of...' programs, I have my suspicions that animation isn't as easy as you'd all like to think. Otherwise, why would the BBC hand out awards for 'New Talent' in web animation? I think perhaps you'd better stick to appreciating the technical complexities of it all. And while you're doing so, go and admire www.howardread.co.uk; see the animations of Howard, cartoonist for this article, and click on the big pink award to see his winning entry in BBC Talent's Web Animation category.

So, what else can you do to make sure you're big chief spod of geek chic? Let's start with the car. What 'toys' have you got in it? I don't mean nodding dogs. (If you have one, then this article is for information only it's not going to help!)

What I mean is have you got satellite navigation? Does your car have a GPS system, to help you get where you want to be, while comparing the planned route with all the last few hours of traffic news? It's an absolute must, when the only journey you actually do is three miles up the one road to get to and from work each day. PlayStation in the back? Just because you don't know enough people to carry passengers is no excuse! Of course, you can't beat the car Toby spotted in New York on a recent visit —registration UID 0. Luckily, I was able to shuffle him into the huge toy store FAO Schwarz and distract him with nerf guns. (Another 'must-have', I'm told —guns that fire foam darts about the place. I'm just glad they were for work, or we wouldn't have any china left in the house...

I wondered what else would make sure that geeks are right there at the cutting edge of 'chic' —or at least their own little version of it. So I've come up with a few fashionable cocktails for you to try. I accept no responsibility for them being utterly repulsive —I'm not stupid enough to actually try them!

The 'Screwdriver': this is a pretty common cocktail needing no inventing by me. Just vodka, ice and orange. However, for those computers, you need a 'Cross-headed Screwdriver,' so all you need to do is add a touch of lemon —screwdriver with a twist. For the Acorn enthusiast still waiting for ARM machines to take over from PCs we have the 'Rose Tinted Spectacles: vodka, gin, lemonade and a dash of grenadine.

For those who have to use PCs and end up with a headache, here's one of the usual reasons for it, with much the same effect —the 'Blue Screen of Death' — double blue Curaçao, lemonade, Cointreau and a dash of Angostura bitters.

And for the devoted ARM Club members, we have the 'Acorn': a delightful shade of Acorn green. Or possibly just a mucky mess.

Do let me know which, if you try it. Just combine several measures of Advocaat and a roughly equal number of Absinthe (symbolic in that it's pretty tricky to get hold off —you can use crème de menthe instead, if you're desparate for an Acorn) until you get to about the right colour. And of course, if it wasn't quite the right colour when you drank it, it might have changed by the time your stomach takes a dislike to it!

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