

The magazine for members of

The ARM Club

**The RISC OS '99 Show
opens at Epsom**

**Designing a two-page
colour advertisement**

**Getting onto the
Internet**

**Practise Science
for the
National Tests**

Who's Top Spod

Issue 32 — Winter 1999

All In A Year

A lot can happen in a year! Last September we were mourning the death of Phoebe, the cancellation of Acorn World and the end of Acorn as a computer manufacturer, all announced just a fortnight after Acorn had held a Press conference where Chris Cox told journalists that the company was planning its production for the next five years.

Since then, Phoebe and the hoped for Phoenix have been quietly buried after their technology was pronounced dead. The RISC OS 4 at Phoebe's heart has been revived and transplanted to bring new life to ageing Risc PCs while a new board is developed to complete their rejuvenation and new machines are completed.

The ARM Club has played its part, notably with the organisation of the RISC OS '99 Show which has taken over the role played by Acorn World to present and display the best in hardware and software and demonstrate to computer users of all

brands that the Acorn/RISC OS scene has survived.

The future is still not assured. Some of the leading Acorn software developers and dealers have gone and many Acorn owners have been forced by circumstances to move into the "industry standard" world of the Windows based PC. They have to be won back and new users attracted.

But to have an updated operating system already available and the prospect of a new motherboard and a range of new computers by different companies all becoming available in the coming months points to a remarkable recovery which gives grounds for real optimism.

It is intriguing to speculate what the situation will be when we pass the anniversary in September 2000.

As I said at the beginning: a lot can happen in a year!

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.

CONTENTS

4 Another Eureka so soon?

Still reading the last issue? We explain this early appearance.

5 The RISC OS '99 Show

Where, when and who will be there.

12 Your way to the Show

By road or rail with a free minibus link from the stations.

14 Around Epsom

Places to see, things to do, if you want to make it a weekend visit when you come to the Show.

16 How the Show was born

The Show's organiser looks at the events of the unhappy year which led to Acorn World's successor.

17 Save £1

There may still be time to get those bargain price advance tickets. Note the new address.

18 Beginner's guide to TeX: Part 2

Using formatting commands to try out your new programming skills.



25 Practise Science

Self testing with a friendly bear: the enjoyable way to prepare for those National Tests At Eleven.

32 On the icon bar

A look at some of the essential programs which have earned a regular place on the icon bar.

36 The Club's Web site

Where it is, how to access it and what you'll find there.

38 Science Keywords

The words you need to know to learn about the living world, with a library of pictures too.

43 The ARM Club Crossword 2

Another of our general knowledge teasers (with a solution to end the torment).

44 The Chairman's Drivel

The Club, the RISC OS scene and an invitation to play a part in them.

46 Getting into desktop publishing

All you need to know to start producing your own publications.

51 The Acorn Midlands Show

Where, when and how to get to the fourth of our popular annual Midlands Shows, at Birmingham in November.

54 Gill's Journal: Who's Top Spod?

The quiz to tell you how you rate and find the Club champion.

62 Free for all: easy upgrading

Where RISC OS 3 users can find some of the improvements that RISC OS 4 users now enjoy.

66 I'm forever blowing bubbles

How that eye-catching double-page Show advertisement in Acorn User was designed and produced.

73 Getting onto the Internet

The first of a two-part series with advice and warnings on making your choice of service providers.

79 Crossword solution

All correct or did you need those tricky answers?

80 Club contacts

Where to get the service, help or information you need from the Club.

Late Announcements

AGM

The Club's Annual General Meeting will be held in Birmingham at the close of The Midlands Acorn Show on Saturday 20th November 1999.

Full details of The Midlands Acorn Show can be found on page 53.

StrongGuard! & SmartCD+
RISC OS 4 compliant upgrades of StrongGuard! and SmartCD+ will be available at the RISC OS '99 Show. Existing users should bring their original discs for exchange.

Another Eureka So Soon?

How time flies! It doesn't seem anything like three months since we had the last issue of Eureka and here's another one. Well it isn't so long actually. We have rushed out this issue to get it into your hands a month early to bring you the latest news and information on the big RISC OS '99 Show at Epsom, which the Club has put on to replace Acorn World. The gap between issues has also been narrowed by problems with our membership database which held up the distribution of Eureka 31. This has also meant that renewal forms due to go out with the last two issues were not enclosed and have had to be sent out later.

Just to complicate matters further, Matthew Cook has had to give up as Membership Secretary because of an increased work load in his day job. Matt has done a lot for the Club in his free time and he now just hasn't got enough of it.

We are pleased to welcome Rilla Paterson as our new Membership Secretary. Rilla is best known as a regular contributor to Eureka with some entertaining and witty software reviews. She is an experienced club secretary and, with our database now thoroughly overhauled, we can expect to return to the Club's usual comparatively smooth running.

You can contact Rilla by email to: membership@armclub.org.uk or by writing to the Club's usual Freepost address.

We can't promise a completely bug-free future but if you get a membership problem let us know and we'll deal with it right away.

Peter Jennings
Editor



Saturday 30th October — 10.00 to 17.00

Sunday 31st October — 10.00 to 16.00

Queen's Stand Epsom Downs Racecourse Surrey

Admission £4.50 on Door — Advance tickets £3.50 *see page 17*

Who's going to be there?

List of exhibitors (subject to confirmation)

RISC OS Ltd

Acorn User Magazine (Tau Press)

RiscStation

Association of Acorn User Groups

Castle Technology Ltd.

Cumana / Cannon Computing

Millipede Electronic Graphics

APDL

R-Comp & R-Comp Interactive

CJE Micros

CTA Direct

Spacetechn Ltd.

The ARM Club

Irlam Instruments Ltd.

Archive Magazine

Aleph One Ltd.

Softase Ltd.

Warm Silence Software

Electronic Font Foundry

Charity Stand

Akalat

Icon Technology

iSV Products

Jonathan Duddington

Really Good Software Company

Apricote Studios

Simnett Computing

Reflex Electronics

What's On Show

AAUG

Visit the Association of Acorn User Groups (AAUG) stand to find out your nearest Acorn or RISC OS user group. Representatives from several user groups will also be on-hand to answer any RISC OS related questions you may have. User groups are becoming increasingly important in our marketplace, so come and find out how you can benefit from joining one today!

Acorn User

The biggest and best magazine in the RISC OS market. Packed with news, reviews and special features. Come to our stand and see what we have on offer for the show. Back issues will also be available, as well as the opportunity to subscribe to the magazine.

Acorn Publisher

Look out for the first issue of volume six and all back issues with our major series on scanning and image processing. Books: browse our range of titles on dtp, imaging and web design including some new titles. Clip Art: examine the new Task Force Image Gallery, the much extended

version of this popular clip art collection.

Aleph One

We continue to support Acorn computers with the ability to run Windows (and DOS) applications. We offer both Second Processors for Risc PCs and constantly developing software to support them. Podule Cards are also available for A3x0, A4x0 and A5000 machines. Special Offers are usual at Shows such as this!

APDL

Will have their full range of Acorn CDs, including clip art, PD, games and others, plus hard drives, interfaces, and CD ROM drives, all at special show prices. You will be able to see the DataSafe parallel port IDE drive system and several new products (hardware and software).

Apricote Studios

Will be demonstrating their ever popular accounting applications: Personal Accounts 4 and Prophet3+ professional. They are also hoping to have a new version of Personal Accounts ready for the show which

should fulfil a number of 'wishlist' items requested by users (unfortunately the ability to print bank notes has not been completed, but they should save you from paying bank charges by telling you if you are likely to become over-drawn!). Apricote Studios will be situated in the RiscStation Village.

Archive Magazine

The subscription magazine for RISC OS users. New subscribers (£25 for 12 issues) can have a FREE CD (worth £12) which contains huge amounts of RISC OS-related information, several volumes of back issues of Archive, utility programs, PD, etc. Alternatively, try the next four issues for only £4, so that you can see just how good it is.

Argo Interactive

Argo are the premier internet provider for RISC OS users. They have supported the Acorn market for the past nine years, the last five as an ISP. Argo are also the main reseller of the Ant Internet Suite which you can see in action on their stand. Argo are committed to the RISC OS market and have recently expanded their support department, who will be on-

hand to answer questions and demonstrate the latest software.

The ARM Club

The Show's Organisers will be on hand as ever with membership offers, club products (including the latest PDCD3), help and advice. A year's membership of the leading user group costs only £15 for the first year (£12 renewal) and includes four issues of our magazine. Watch out for special show offers, or just pop along for a chat!

Castle Technology

The Castle stand will feature the wide range of Acorn and other products. Castle's new build specification Risc PCs in various guises will be available to purchase. The new A7000+ Odyssey will also be on show. As usual Castle will also be demonstrating its wide range of scanners, CD writers and other peripherals and upgrades. We look forward to meeting you at the show.

CTA Direct

CTA will have a number of new products for sale. These will include new RISC OS machines, hard drives, CD-ROMS, CD-ROM re-writers,

memory for all RISC OS machines, mice, keyboards, MKII Trackball, printer consumables and many other items. The team looks forward to meeting you at the show.

Cumana/Cannon Computing

At RISC OS '99 we will be dedicating the stand to 'Thin Client Technology'. We will be requesting anyone who is in educational circles to come along to the stand to see Citrix and TopCat running both RiscOS and Windows on new and old Acorn/RISC OS machines. We will also have all of our general products for sale with bargains being offered at the show.

EFF

EFF offers the largest library of high quality fonts, including a wide range of educational, specialist and foreign typefaces and font converting software: EFF TrueType Translator, EFF PostScript Translator and EFF Font Table. The new CD, EFF2 Professional Typography, with 800 fonts in Acorn and Windows format, will be available at the show.

Icon Technology

Will be showing TechWriter and EasiWriter the powerful, yet easy to

use, word processors which have been voted first and second word processors on the Acorn platform and best commercial software.

- * Reads and writes Microsoft Word 6, 7 and Office 97/98.

- * Style Editor.

- * Automatic Tables and Lists.

- * Imports Impression text files complete with formatting.

- * Reads and writes HTML.

NEW: EasiWriter and TechWriter Pro + with improved graphics — text flows round pictures — also runs Java applets and animations. Show offers will be available.

Jonathan Duddington

Speak software speech synthesiser will 'talk-as-you-type' and read out text for proof-reading. *Pluto* is a text database and powerful internet news and mail reader. It can be used to replace Marcel, Posty/NewsAgent etc. Trial versions available from: www.argonet.co.uk/users/jsd/

Millipede

The highlight of the Millipede stand will be the Imago Concept Motherboard. Mechanically compatible with the Acorn Risc PC, Imago forms the basis for a number of

products to be produced by Millipede. Imago exploits the latest technology to propel RISC OS computing into exciting new territory. Not to be missed!

R-Comp

Will be showing latest versions of its ever expanding range of internet and web authoring products. Visitors should expect some exciting new developments, including new versions of WebsterXL and Messenger Pro. Check out RCI's range of sound and music products, including the powerful Anthem sequencer, for quality and value. Special show offers on graphics tablets too. Oh, and of course, there will be at least one great new games release, but that goes without saying!

Really Good Software Co

'Show Specials' on many products including the completely new NOTICE BOARD 2 launched at Wakefield. A 'must see' for all current NB users and on offer at a special Show price. Newer than new VideoList to be launched the Show. It not only gets your video mess sorted it also tells you where that half empty video is! Also the very popular early

learning program PICTURE BOOK 2. A suite of six great programs in one low-cost package. Handy NOTES —already used on thousands of RISC OS computers and, at the Show, only £5!

Reflex Electronics

Reflex are committed to supporting Acorn products for at least the next four years. We are the Number1 approved supplier of: Genuine Acorn spares, Technical support, extended warranty contracts, repairs in/out of warranty. Visit our stand - No. 9 in the Risc Station village for further information. We exist to support you.

RISCOS Ltd

Don't miss the RISCOS stand to see the latest developments for RISC OS 4. Upgrades will be available to take away at £99 + VAT for Risc PC and A7000/A7000+ users. Join The Foundation for £30 + VAT (£25 + VAT for ex-Clan Members if you bring your membership card. Get the RISC OS World wallchart for just £4.50, listing all the companies offering products and services for your favourite operating system. We've got RISC OS 4 —have you bought yours yet?

RiscStation

On show will be the new range of machines including the R7500, the first RISCOS PCI machine, and the RiscStation Networx machines. A network of machines running the latest software bundles will be on demonstration. Also the unveiling of new products and enhancements for all RISC OS machines.

Simnett Computer Services

We will be selling software produced by educational software publishers Tempest Publishing. Also, we shall be explaining about our computer tuition and training program. Our associates, 1st Impressions, are an Authorised Installer for RISC OS 4 upgrades in Lincolnshire and offer a wide variety of support services for businesses and education.

Softease Ltd

See the Award Winning Multimedia TextEase —word processor, desktop publisher, multimedia authoring and web page creation tool, all wrapped into one easy to use package. Available for Acorn, Windows and Mac computers. The latest version features full undo/redo capability. Special prices on the stand for new

purchasers and for those upgrading.

Spacetechn Ltd

Spacetechn are showing their range of studio quality graphics software for Risc OS including Photodesk3 with layers. The Digital Art CD-ROM by David Cowell, featuring bitmap and vector graphics tutorials, is shown as well as his brand new second CD shown here for the first time. Watch out for the latest in Digital cameras from Olympus including the new C2000 Zoom 2.1 Megapixel compact also a new tiny megapixel camera and a multi-mega pixel replacement for the C1400XL! PhotoReal drivers for the Canon BJC7000/7100 and BJC2000 will be shown. OHP, the presentation maker for RiscOS is demonstrated with some new features. Some attractive show discounts are offered.

WSS

Will be showing new versions of much of their acclaimed software, including CDR0MFS (updated to handle Packet written UDF discs), CDBurn, LanMan98 and a new NFS client.

Castle's Acorn Theatre Presentations

Saturday 30th October

10:30 Castle Technology	Acorn Computers, Past, Present and Future
11:30 Apricote Studios	Personal Accounts 4
12:00 RISC OS Ltd.	The Future of RISC OS
13:00 RiscStation	The RiscStation R7500
14:00 Sincronia	Top Model 2
14:45 Millipede	Imago Motherboard Development
15:30 Steve Turnbull	Charity Fund Raising
16:00 TBA	

Sunday 31st October

10:30 Castle Technology	Acorn Computers, Past, Present and Future
11:30 Apricote Studios	Personal Accounts 4
12:00 RISC OS Ltd.	The Future of RISC OS
13:00RiscStation	The RiscStation R7500
14:00 Acorn User	Acorn User Awards Presentation *
14:45 Millipede	Imago Motherboard Development

*** *The Acorn User RISC OS Awards***

- **Best Dealer**
- **Best Non-game software release in 1999**
- **Best Non-game hardware release in 1999**
- **Best Game release in 1999**
- **Most popular RISC OS personality**
- **Best Non-game release ever, for RISC OS**
- **Best Game release ever, for RISC OS**

Vote for your favourite people and products and send your nominations to:
RISC OS Awards, Tau Press, Media House, Adlington Park, Macclesfield.
SK10 4NP or hand them in to the Acorn User stand at the show before midday
on Sunday 31st October.

Your Way To The Show

By Road

Directions from M25 (London Orbital motorway) Reigate Hill interchange:

- Exit at Junction 8 and head northbound on the **A217** Brighton Road dual carriageway —signposted A217 Sutton & London.
- Continue northbound through Lower Kingswood and straight ahead at the next two roundabouts —still signposted A217 Sutton & London.
- After 2.8 miles from the M25 take the third exit (straight ahead—ish) at the Tadworth roundabout —still signposted A217 Sutton & London.
- After 1.0 mile turn left at the traffic lights at Burgh Heath on to Reigate Road —signposted **A240** Epsom & Kingston (there is a Shell petrol filling station on the left hand side just the other side of the traffic lights).
- Follow this road across a set of traffic lights (after which the road starts going downhill) and after 0.9 mile turn left on to Yew Tree Bottom Road —signposted **B284** Epsom Downs (immediately after the keep left arrows where the main road continues bearing round to the right).
- After 0.5 mile take the second exit at the roundabout on to Grandstand Road —signposted Grandstand & Ashted.
- After a further 0.6 mile both the Epsom Racecourse Grandstands and Queens Stand are located straight ahead adjacent to another roundabout (the Queens Stand is on the right and is more modern) —nearby car parking will be signposted and marshalled.

Beware — the A217 is a dual carriageway with a 40mph speed limit and there are two separate police speed cameras located along this stretch of road.

(NB A route will be signposted by the RAC from J8 of the M25)

For more travel information see our Web site: www.armclub.org.uk/

By rail

Rail passengers should use one of the following options:

Take a train to Tattenham Corner Station (half hourly from Victoria on Saturday, hourly on Sunday). Tattenham Corner is walking distance from the racecourse, but a free minibus service will be available from the station.

Take a train to Epsom railway station (trains from London leave Victoria and Waterloo). Epsom is not walking distance —you will either need to take a bus, or the free minibus service which will be running a half hourly service.

Minibus Timetable Saturday 30th October

The RISC OS '99 Show	Depart	10:00	16:00 16:30 17:00
Tattenham Corner Station	Arrive	10:05	16:05 16:35 17:05
	Depart	09:40 10:10 then	16:10 16:40
The RISC OS '99 Show	Arrive	09:45 10:15 every half hour	16:15 16:45
	Depart	09:50 10:20	16:20 16:50
Epsom Station	Arrive	10:05 10:35 until	16:35 17:05
	Depart	09:40 10:10 10:40	16:40
The RISC OS '99 Show	Arrive	09:55 10:25 10:55	16:55

Sunday 31st October

The RISC OS '99 Show	Depart	10:35	14:35 15:35
Tattenham Corner Station	Arrive	10:40	14:40 15:40
	Depart	09:45 10:45 then	14:45 15:45
The RISC OS '99 Show	Arrive	09:50 10:50 every hour until	14:50 15:50
	Depart	09:55 10:55	14:55 15:55
Epsom Station	Arrive	10:10 11:10	15:10 16:10
	Depart	10:15 11:15	15:15
The RISC OS '99 Show	Arrive	10:30 11:30	15:30

Around Epsom

If you are travelling some way to attend the RISC OS '99 Show you may decide to spend the weekend in the Epsom area. There are plenty of things to see and do. Here are some suggestions for making the most of your visit.

Places of Interest

Brooklands Museum (20 mins)

Clandon Park (NT) West Clandon 01483 222482 (NB. House closed Fridays & Saturdays)

Claremont Landscape Garden (NT) Esher 01372 467806

Ham House (40 mins) (NT) Ham 0181 940 1950 (NB. House & Garden closed Thursdays & Fridays)

Hampton Court (20 mins)

Hatchlands Park (NT) East Clandon 01483 222482 & 223479 (NB. House & Gardens closed Fridays & Saturdays)

Hever Castle (40 mins)

Horton Country Park (animal farm) (10 mins)

Loseley House (35 mins)

Morden Hall Park (NT) Morden 0181 648 1845

Polesden Lacey (15 mins) (NT) Great Bookham 01372 458203 & 452048 (NB. House closed Mondays)

Richmond Park (30 mins)

Runnymede (JFK memorial & Magna Carta) (35 mins) (NT) Egham 01784 432891

Windsor Castle (35 mins)

NT = National Trust properties

Things to do

Canal Boat Trips from Guildford (15 mins)
Chessington World of Adventures (10 mins)
Legoland - Windsor (35 mins)
Thames Boat Trips from Kingston (20 mins)
Thorpe Park (20 mins)

Walks

Box Hill (15 mins) (NT) 01306 885502
Epsom Downs (5 mins)
Leith Hill (20 mins)
Newlands Corner (20 mins)
Reigate Hill & Gatton Park (NT) 01737 778753

Shopping

Guildford (20 mins)
Kingston (20 mins)
Richmond (40 mins)

Market Days

Epsom: Thursday & Saturday
Kingston: Monday
Sutton: Tuesday & Saturday

In addition to Epsom and the other places listed, many of the nearby towns, such as Redhill, Reigate, Sutton also offer their own shopping facilities as well as cinemas, theatres, restaurants, pubs and fitness centres and there are numerous golf courses in the surrounding area.

How The New Show Was Born

This time last year, the RISC OS user community was reeling from the shock that Acorn had cancelled the Phoebe project, 'postponed' Acorn World and was closing its Workstations Division with the loss of a number of jobs. The

with the bulk of Acorn owned ARM shares being distributed to Acorn investors and the remaining parts of the business being sold to Pace Micro Technologies. May saw the annual Wakefield Show take place at Thornes Park Athletics Stadium with

Mark Smith, who has organised the RISC OS '99 Show looks back on a year of changing emotions which led to its creation.

future looked very bleak for continued development of RISC OS based platforms and software.

many exhibitors reporting a successful weekend and some leaving with very little stock.

Since then, a number of things have happened. The ARM Club's annual show at The National Motorcycle Museum just outside Birmingham in November attracted a record number of visitors.

After a rocky start with failed attempts to rescue Phoebe, RISC OS Ltd. was founded and a contract with Acorn to licence RISC OS was eventually signed in March. Just after that came the news that after twenty years, Acorn was to be broken up,

RISC OS 4 released

At the beginning of July, RISC OS 4 was released and after a few teething problems with flash ROM, all orders have now been fulfilled and it is available from stock through most dealers. July was also marked by another of John Stonier's Southeast shows, which was again well attended.

With all this change and no small degree of uncertainty, the last year has been a difficult one for all

concerned, most especially for the dealers and developers whose livelihood depends on their businesses.

There have been a number of casualties. However, things are now beginning to stabilise with releases of new hardware to come over the coming months and an upturn in development and the release of new and upgraded software.

New companies

We are even beginning to see new companies such as the dealer, Simnett Computing, appearing and have seen many individuals taking the Authorized Installer course for RISC OS 4 because they wanted to do something to help.

The seeds of The RISC OS '99 Show were sown immediately after 'Black Thursday' in September last year when it quickly became clear that Acorn World was extremely unlikely to occur at all.

The idea was to provide a replacement for Acorn World but create a new show to meet the changing needs of the RISC OS market. A great deal of hard work has

gone into producing a professional event by myself and a small team, all of us unpaid volunteers, working in our spare time. We look forward to meeting you at the show and hope that you feel our hard work has been worthwhile.

Mark Smith
Show Organiser

Save £1

If you are quick there may still be time to save £1 on all your tickets for the Show by booking in advance.

Do not use the Freepost address. Send your order for advance tickets at £3.50 each, with a cheque made payable to The ARM Club, to:

Tickets
Merton Court School
38 Knoll Road
SIDCUP
Kent
DA14 4QU

*Order must arrive not later than
Saturday 23rd October 1999.*

A Beginner's Guide To TeX

So you now have TeX installed and appreciate its power and would like to learn how to operate it. This article will therefore show the reader how to TeX a letter and how to drive TeX from a Task Window as well as from SemTeX —one of the user-

reader, which has been interlaced with TeX formatting commands. I wrote the letter in Edit and saved it as a TeX file of filetype &2A7. *Inserts One* and *Two* should give you an idea of what the letter looks like when it has been run through TeX.

In the second part of his fascinating tutorial, Paul Webb writes a letter to Eureka readers to illustrate how to use formatting commands in a TeX document.

friendly front ends which are available for RISC OS TeX.

The article assumes that you have read the first article in the series and therefore understand the difference between a TeX file and a Device Independent or DVI file.

I also hope that you have managed to get TeX up and running. Playing with TeX is after all the best way of becoming a competent TeXnician. Don't worry though, I'm not at that illustrious stage either!

This article therefore includes an example of a letter to you, the Eureka

%%Letter_1.tex This is a comment and as such is ignored by TeX%%

\input macro.tex

{\obeylines \bigrm Eureka reader
{\tenbf Eureka}
FREEPOST

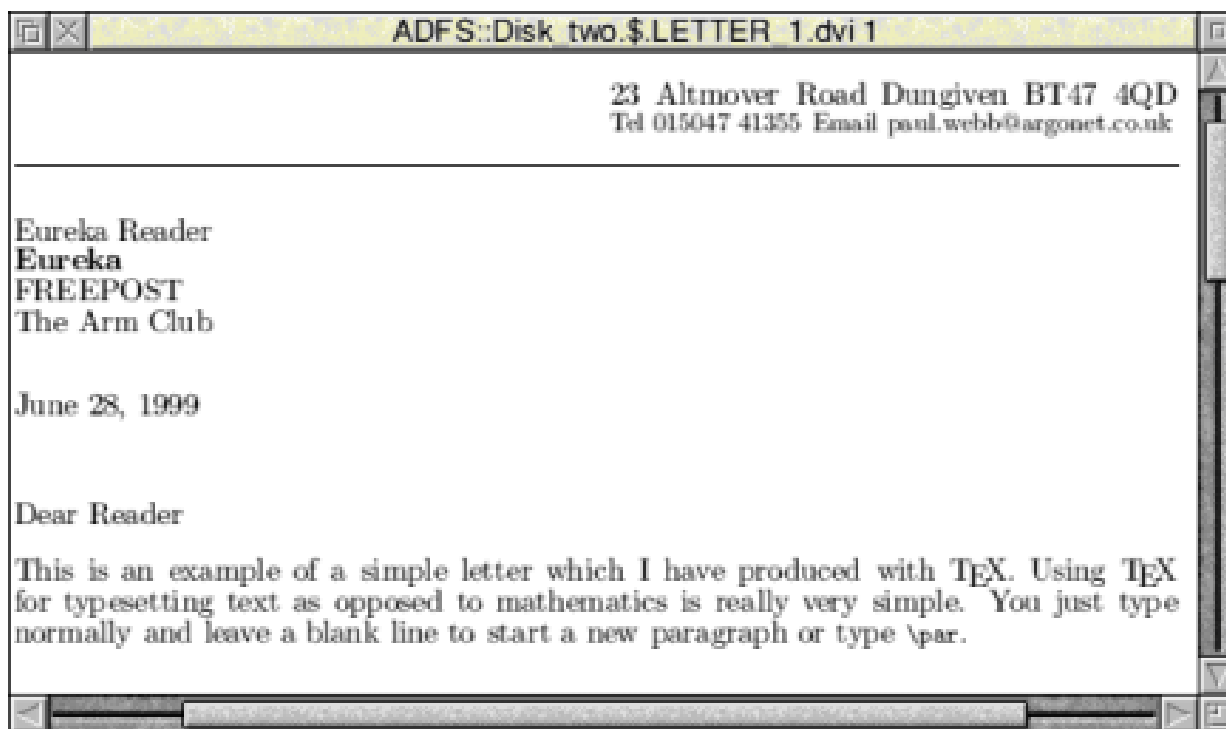
The Arm Club}

\vskip 20pt

{\parskip = 10pt

\bigrm Dear Reader

This is an example of a simple letter which I have produced with \TeX{}. Using \TeX{} for typesetting text as opposed to mathematics is



Insert One: Page One of Example Letter

really very simple. You just type normally and leave a blank line to start a new paragraph or type `{\tt\char`\par}`.

`\vfil`

`\eject`

You can also change the layout of your page by using the `{\tt\char`\hsize}` command to specify the horizontal width of the page whilst the equivalent command for setting the vertical height of the page is `{\tt\char`\vsize}`. You can start a new page at any point by typing `{\tt\char`\vfil}` and `{\tt\char`\eject}`.

These are just some of the many commands that you can use to typeset a document. We will look at `\LaTeX{}` commands and documents in another article.

}

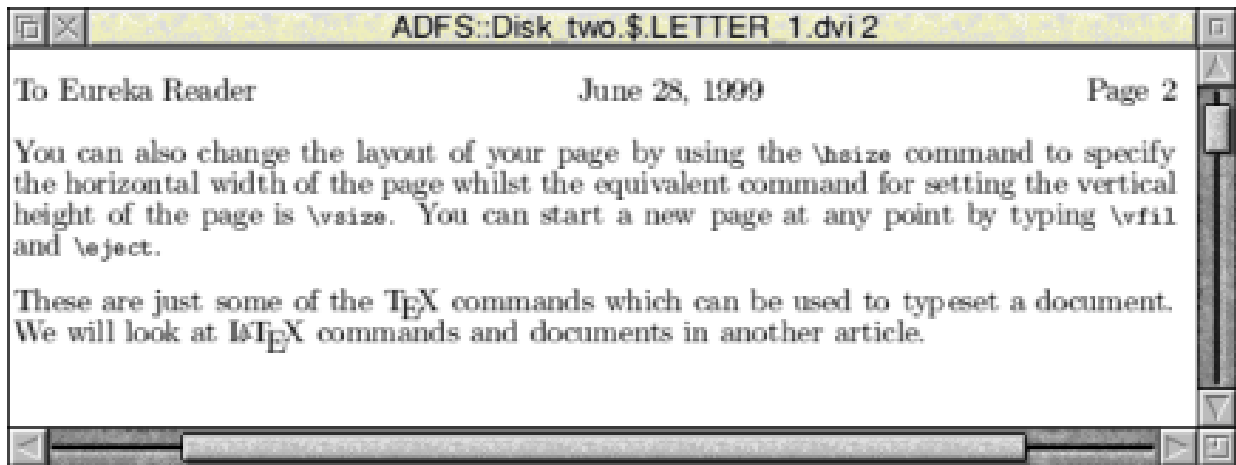
`\end`

`%%Macro.tex%%`

`\font\bigrm = cmr10 scaled
\magstep 1`

`\font\tensl = cmsl10 scaled
\magstep 1`

`\font\tenbf = cmbx10 scaled
\magstep 1`



Insert Two: Page Two of Example Letter

```

\font\sc = cmcsc10 scaled
\magstep 1
\font\smalla = cmcsc10
\let\sc = \smalla

\def\today{\ifcase\month\or
January\or February\or March\or
April\or May\or June\or July\or
August\or September\or
October\or November\or
December\fi \space\number\day,
\number\year}

\def\LaTeX{{\bigm
L\kern-.36em\raise.3ex\hbox{\sc
a}\kern-.15emT\kern-.1667em\lo
wer.7ex\hbox{E}\kern-.125emX}}

\hspace=6.25truein
\raggedbottom
\nopagenumbers

```

```

\def\address{\vbox{\leftskip 3.2in
\bigm 23 Altmover Road
Dungiven BT47 4QD
\baselineskip 10pt {\rm Tel 015047
41355 Email
paul.webb@argonet.co.uk}}}

\def\addressee{Eureka Reader}

\headline={\ifnum \pageno=1 \hfil
\tenrm \address
\else To \addressee\hfil\today\hfil
Page \folio \fi}

\hrule
\vskip 20pt
\parindent = 0pt

```

Well, you're probably a little confused at this point. What are all those strange looking commands and why should I bother with all this when I can produce any document with a

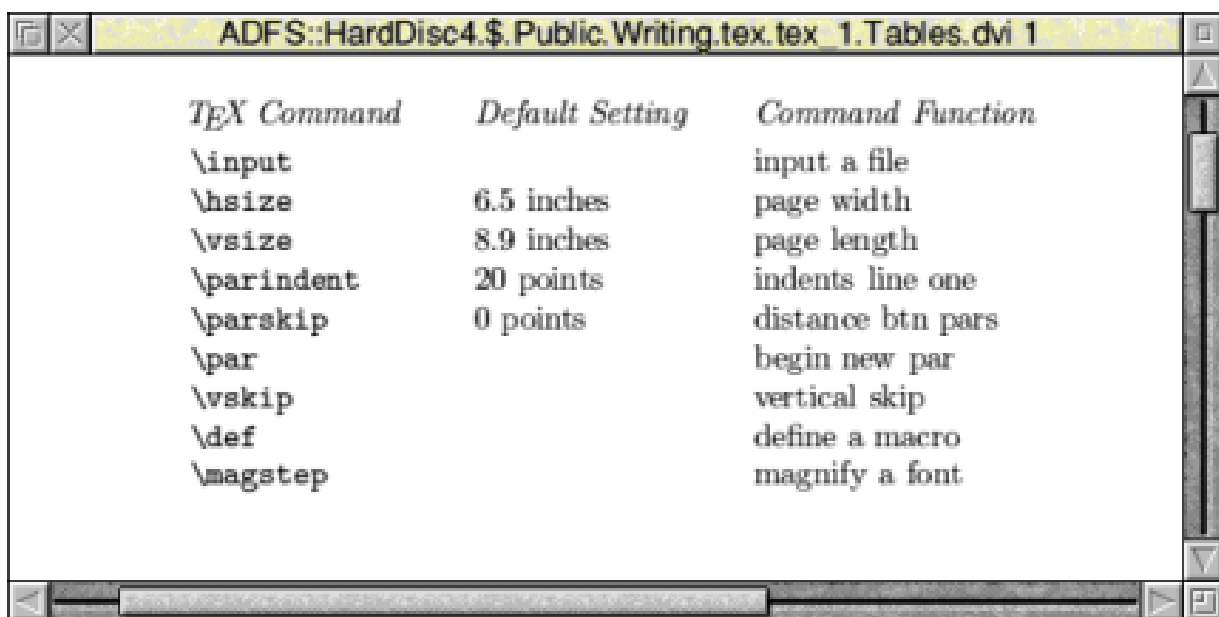
conventional word processor?

Those strange looking commands are called *control words* or *control symbols* and are inserted within the text file that you have written according to your intentions. Remember, TeX commands always begin with a backslash. TeX will report errors if you forget this minor detail.

There are literally hundreds of commands which means that a page can be designed with absolute control. Indeed, the level of control over documentary design which you have at your fingertips is what distinguishes TeX from a word

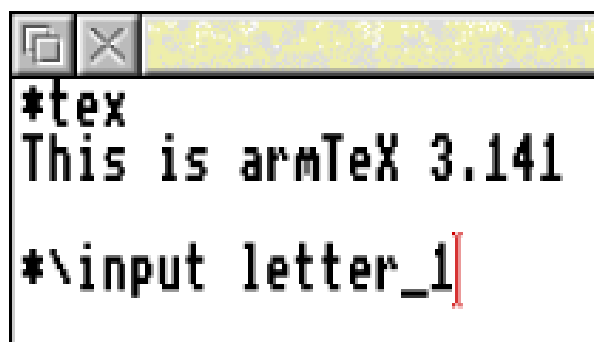
processor. Of course, you will only use a small number of commands on a regular basis and with this in mind *Insert Three* lists some of the commands that I have used to write this letter to you. After you have read this article and studied *Insert Three* in particular, I would encourage you to change some of the parameters of each command so that you can study their effect. What happens for example if you delete the `\nopagenumbers` command before running the document through TeX? Try it and see.

The final document was produced with the aid of two files — `macro.tex` and `letter_1.tex`. I could have



<i>TeX Command</i>	<i>Default Setting</i>	<i>Command Function</i>
<code>\input</code>		input a file
<code>\hsize</code>	6.5 inches	page width
<code>\vsize</code>	8.9 inches	page length
<code>\parindent</code>	20 points	indents line one
<code>\parskip</code>	0 points	distance btn pars
<code>\par</code>		begin new par
<code>\vskip</code>		vertical skip
<code>\def</code>		define a macro
<code>\magstep</code>		magnify a font

Insert Three: Table of TeX Commands



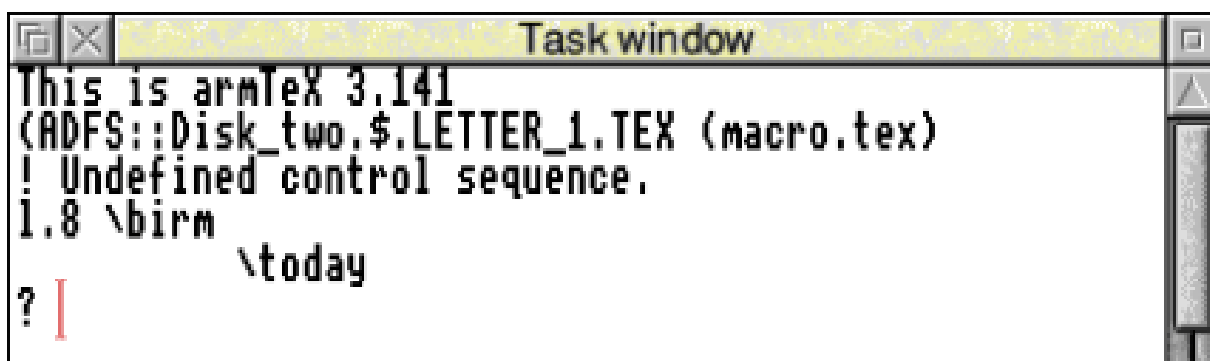
*Insert Four: Task Window Loading
a TeX file*

produced the same result by including the text of my letter plus the formatting commands within a single file. I do however write lots of letters which means that it makes sense to include the various formatting commands for my letter in a special `macro.tex` file. By the way, a macro is simply a definition for a number of control commands which are used frequently. The control word `\\def` is used to define macros and I have used it to define a logo for LaTeX. There are a few other definitions in `macro.tex`. Can you spot them and perhaps guess what they do?

I used SemTeX to run the document through TeX but I will show you how to run TeX from a Task Window as well. Before you do anything, double click on the TeX directory so that the TeX fonts are visible to the filer. Then

open a Task Window by clicking the middle mouse button over the switcher and choosing the appropriate option. A Task Window will open and you should type TeX at the prompt. ArmTeX will load which means that you are in a position to load the document that you want to run through TeX. To do this, type `\\input <filename>` at the prompt where `<filename>` is the name of the file that you wish to process. Your file will then be processed and TeX will tell you how many files have been processed as well as creating a file called `texput.dvi` for your output. Your DVI file may then be viewed through a DVI Viewer and saved as a Draw file for printing. *Insert Four* shows a Task Window in which `letter_1.tex` is about to be run through TeX.

Of course, all of the above assumes that your file is error free. If you make an error —such as a spelling mistake—in one of your TeX commands then TeX will report an undefined control sequence. The next line will show what TeX has looked at so far and the line on which the error occurred. *Insert Five* shows that `letter_1.tex` contains an undefined control

A screenshot of a 'Task window' titled 'Task window'. The window contains the following text: 'This is armTeX 3.141', '(ADFS::Disk_two\$.LETTER_1.TEX (macro.tex)', '! Undefined control sequence.', '1.8 \birm', and '\today'. At the bottom, there is a red question mark '?' followed by a vertical red bar, indicating the current cursor position.

```
This is armTeX 3.141
(ADFS::Disk_two$.LETTER_1.TEX (macro.tex)
! Undefined control sequence.
1.8 \birm
      \today
? |
```

Insert Five: TeX Reports an Error

sequence at line eight. Close inspection of the Task Window reveals a spelling mistake. The command `\birm` should in fact be spelt as `\bigrm`. TeX prints a `?` on screen to indicate that it is waiting for your response. At this stage there are a number of options.

1. Press `<return>` TeX will resume processing and will attempt to recover from your error.
2. `'S'` TeX will process your document without stopping to report any other errors in your document. A description of all error messages is available for inspection in your log file —another file which is generated at run time and which keeps a record of what you have done during your session.
3. `'R'` A stronger version of `'S'` which means that TeX will not stop even if a file name cannot be found.

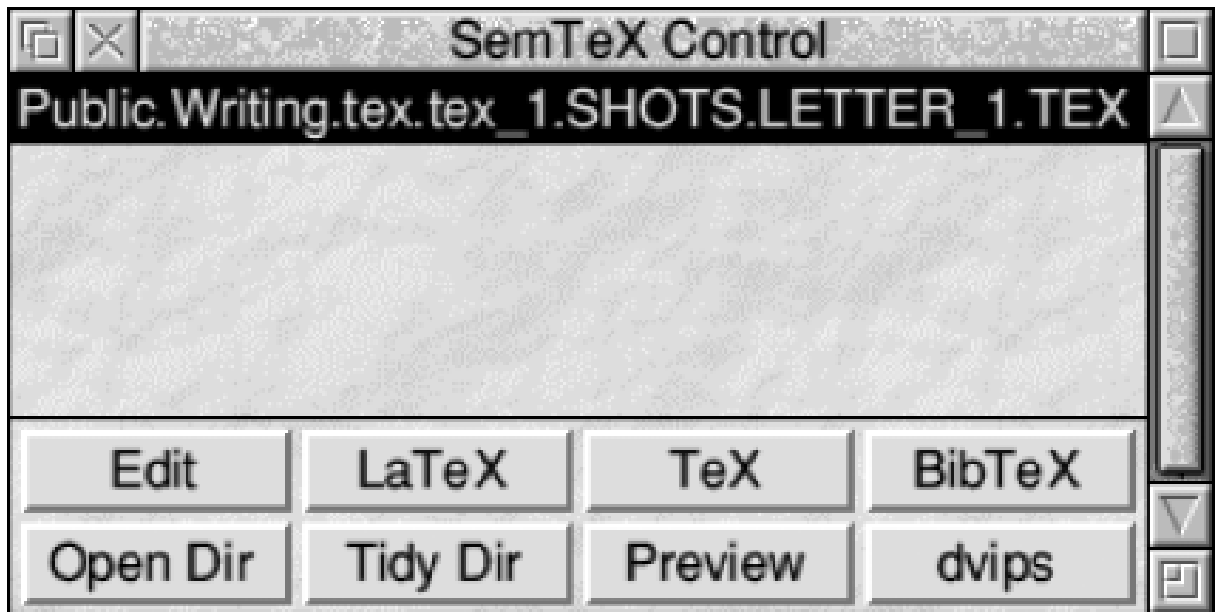
4. `'Q'` A more emphatic version of `'R'` which suppresses all further reports. This option is risky except where you want to TeX a document while you are away from your computer and are reasonably certain that it contains very few errors.

5. `'I'` Type `'I'` to insert text.

6. Type a number which should be less than 100. TeX will then delete this number of characters and control sequences from what it is about to read next.

7. `'H'` Type `'H'` for help. Initially TeX will issue a formal help message which will be complemented by an informal message if you type help again. Messages may again be inspected in the log file.

8. `'X'` This command causes TeX to stop working. Any DVI pages that have been already processed are saved but no output is produced for incomplete pages.



Insert Six: The SemTeX Control Window

So you now know how to run TeX from a Task Window. Thankfully, producing a TeX document with SemTeX is even easier. Simply double-click on the SemTeX icon to load the application. Now drag and drop your TeX document onto the SemTeX icon on the icon bar and the SemTeX Control window appears. To TeX your document click on the TeX button and to edit your TeX file click on Edit. Yes, it's that simple. You can also LaTeX your documents but that's another story which I'll cover in a third article. *Insert Six* shows the SemTeX Control Window before letter_1.tex is run through TeX.

Good luck and happy TeXing!

References

Donald E. Knuth. The TeXbook. Addison-Wesley, Reading, 1986.

Michael Doob. A Gentle Introduction to TeX. Electronic Manual from: www.math.sunysb.edu/~yampol/atex.html

Michael Doob. TeX from Square One. Springer-Verlag, 1993.

The latter reference is an expanded version of Doob's electronic manual.

Paul Webb's easy introduction to TeX will be concluded in our next issue.

Practise Science

Meaty content —always at the top of my Wish List for educational software, and here it is in abundance in a new interactive CD-ROM entitled **Practise Science for National Tests at Eleven** from Yorkshire International Thomson Multimedia.

They were originally the result of a project set up by Newcastle University to investigate the application of new technologies to learning. ILP have won awards for quality, and I can see why. Here is a robust program packed full of questions which are in many cases

Rilla Paterson checks her knowledge of science and finds she's got nothing to learn when it comes to caterpillars' legs.

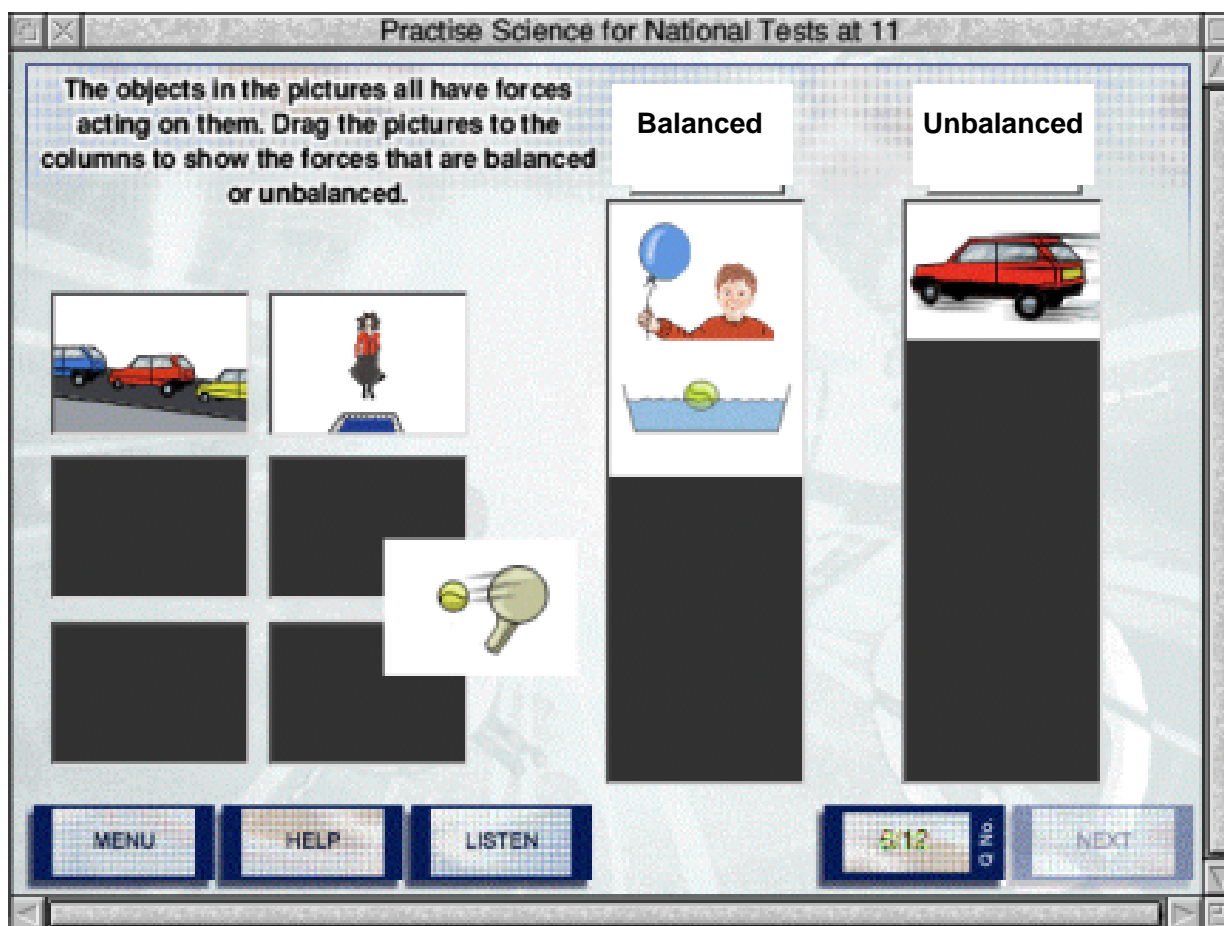
YITM is an association between Yorkshire TV and the educational publisher Thomas Nelson. Their CD-ROMs have, they say, been produced with the curriculum requirements of schools in mind. This one is being promoted in a pack of three, along with Practise Maths at 7 and Practise Maths at 11. The aim is to provide 11-year-olds with practice at answering questions that might be asked in National Science and Maths tests.

The design comes from Interactive Learning Productions, which became part of Thomson Publishing in 1993.

really quite searching and require considerable thought. Moreover these are supported with useful classroom materials and good ideas.

Minimum requirements for the Acorn are ARM 250 or above, RISC OS 3.1, 4MB, Double speed CD-ROM drive, SVGA (mode 28) graphics and sound card.

The User Guide is rather sparse, but adequate for 11-year-olds, who never need them anyway. I found the installation straightforward, but an initial problem was that an error occurred on attempting to print. This



Drag and drop the pictures to the columns to show which forces are balanced and unbalanced

meant that I couldn't immediately take full advantage of the plethora of printable and photocopyable practice sheets that accompany the package. To be fair to the publishers, the reason for the error turned out to be the inadequacy of my Printer Driver, and our *Eureka* Editor came to the rescue here with a more up-to-date version.

The 30 printed sheets allow students without the necessary hardware to

continue at home work they have been doing in the classroom.

Broadly, the program requires the child to answer a series of multiple choice questions. Each question is delivered audibly and appears on the screen.

The person reading the questions is very well spoken — a pleasure to listen to. Good elocution may be an

old-fashioned notion, but in my book it helps to maintain a high standard in educational software.

The program claims to “enable pupils to explore different types of questions from multiple choice to filling in blanks” —but the blanks are supplied on screen so these too are simply an extension of multiple choice.

This is not to say that multiple choice questions are inferior; on the contrary they can be just as searching as open questions, but the style is not as varied as the claim suggests.

The activity falls into two main areas: *Learn About Science* and *Do A Test*, but it turns out that these two are almost identical. The former is rather a misnomer because the child does not actually learn about science, but more of that later. The difference is broadly that if the child chooses to *Learn About Science*, little help messages pop up whenever the wrong answer is chosen, whereas if the child chooses to *Do A Test*, they type their name in a box, answer the questions without the help comments, and the computer delivers a score at the end.

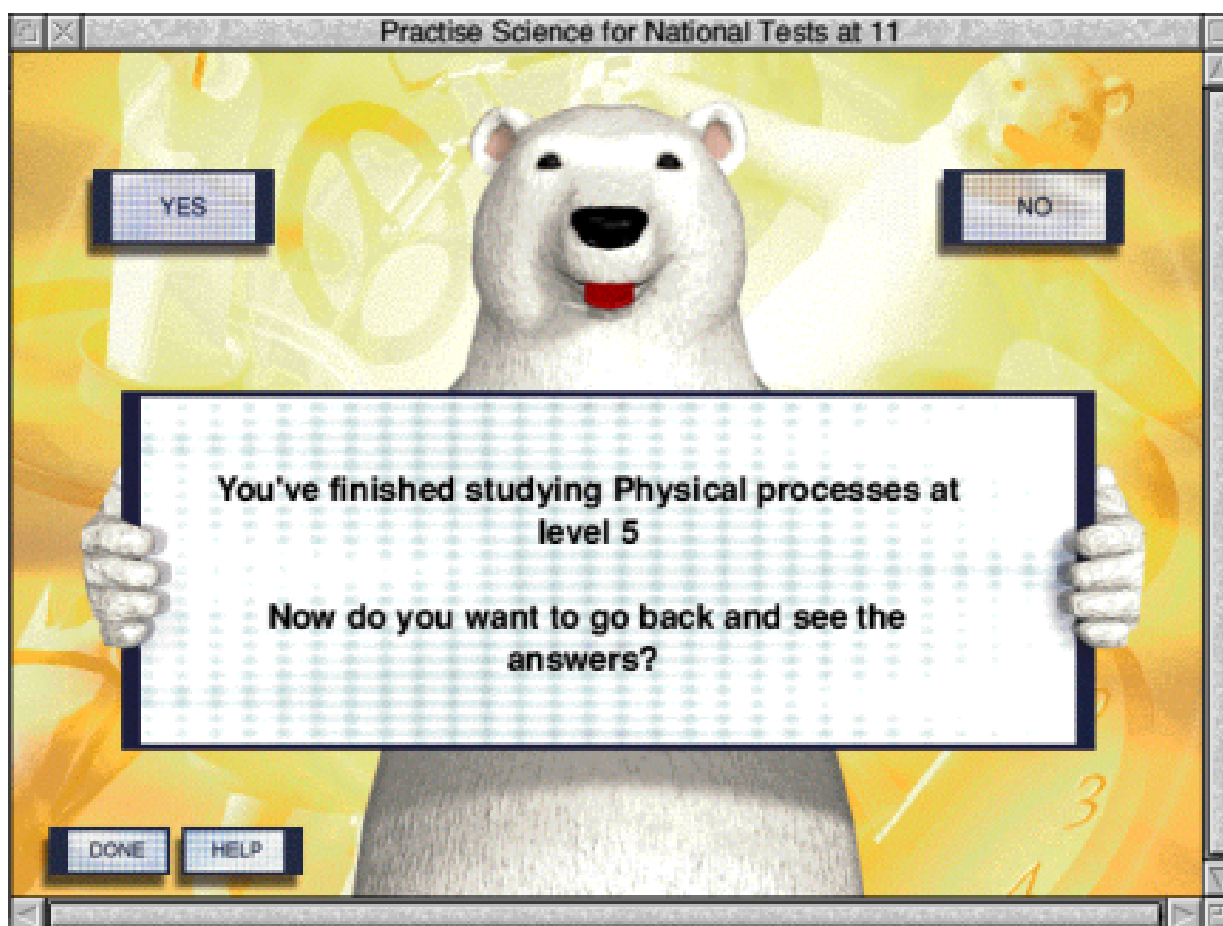
The comments are a mixed bag. They claim to give “help and advice relevant to each topic” but in practice these are sometimes merely “Think carefully!” or “Try again!” —not really leading the child to a better understanding of the subject but rather serving to narrow down the multiple choice options.

Most of the comments are helpful, though. For example, one question asks why coins are made from metals: the choices are:

- *They are shiny*
- *They fit into the pocket easily*
- *They are hard and tough*
- *They are found in the ground.*

Clicking on any of the wrong answers elicits the message “Think about how long they have to last”. This is a good question, because all the choices are true, but only one answers the question properly and the error message guides the child to the correct answer in the right way.

Learn About Science offers the chance to *Study A Subject*, or *Study At A Level*. The subjects are *Life processes*, *Materials and their uses*,



Easy to follow instructions help the student to recap

and *Physical processes*, covering every aspect of the National Curriculum. The levels correspond to the National standards understood by the teaching profession. The children can study at Level 3, 4, 5 or a mixture. Questions at Level 6 were conspicuously absent, presumably because most 11-year-old Level 5 children would be perceived as fairly high flyers. It would have been a bonus to have some questions at Level 6, because Level 5 children need stretching.

There are two realistic test lengths, of 36 and 72 questions, providing a useful opportunity for timing the pupils at different levels.

Most of the questions are very good, and there is enough variety in the activities from drag-and-drop, true or false, filling in the blanks and unscrambling the sentences.

Sometimes the answers the computer is looking for are not altogether the right ones. One question asks whether

a caterpillar has *six* legs, *eight* legs, or *many* legs. The answer required is *many*. Actually, all insects have six. The suckers at the end of an insect larva are not true legs, but prolegs.

Smarty pants

OK, so I'm a pedantic little smarty-pants. But I just happened to study insect anatomy and physiology and that particular gem remains in my memory from O-level days. I may have an inadequate Printer Driver, but I do have a detailed knowledge of the rear end of a caterpillar. So there!

Another question asks whether a daisy needs food in order to grow. Plants make their own food, so perhaps not, but the 'correct' answer is otherwise. Sometimes the answers can be arrived at by devious means. For example, when making a correct sentence from a jumble of words, the first word could be guessed by the give-away capital letter at the beginning of one of the choices. The use of all capitals would have removed this problem, although at the expense of legibility.

A great difficulty encountered by teachers endeavouring to teach

science at primary level is that while the children's attainment at science is measured by SATS, so many of the questions in the SATS test rely on general knowledge rather than on what has been taught in school.

It is difficult for the teacher or parent to know where to begin and how much to cover. This software gives a framework for starters. Children work at their own pace, and the questions require an understanding of the underlying topic in each case. The program provides —simply by the diversity of the questions and the fact that there are so many of them (and there are hundreds) —an indication of the breadth and depth of the subject. That is all it is, though, just a testing machine. It doesn't teach science in the way it should be taught, as a practical subject. It teaches children the right answers and will therefore help them to get a high mark in SATS tests. In this sense it does what it is designed for, and it does it well.

Special needs

One gaping omission by the designers is that although the questions are spoken as well as written, the answer

Correct! Copper wire is used in electrical circuits because it is a good conductor.

Continue

Useful comments along the way

choices are not. This means that the child must be able to read well. For children with special needs the complex wording and tiny print would present an unfair handicap. In the real SATS test such children would be entitled to have the whole question read out to them. After all, it's a test of science knowledge, not of reading ability. Why could the designer not have included the choices in the audible ingredient of this program?

The worksheets are mostly good and cover a range of levels, but some of the questions are far too difficult. I wonder whether even the very advanced 11-year-old would know that when heat is applied to ice, the rise in temperature is not constant because energy is used to change the state of the material instead of being

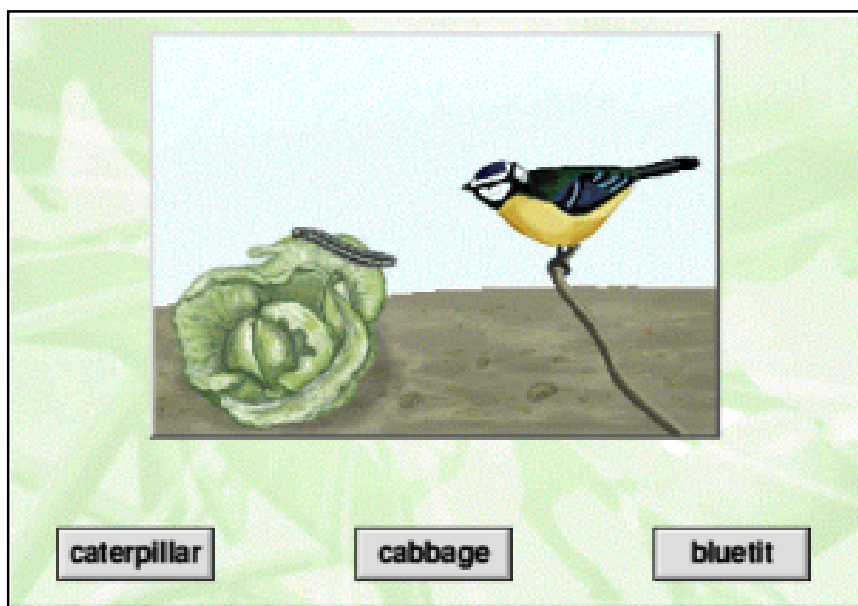
used to raise the temperature. Even a teacher would probably not know that the compound produced when zinc and sulphur react together is called zinc sulphide. These are certainly beyond Level 5.

Don't forget that junior

schools don't have laboratories, and the science taught must be geared to what is possible in the classroom. Most of the worksheets, however, are exactly like SATS papers and would be ideal for a child studying at home, where parents, unlike schools, have no access to sample tests.

Support material

Sadly there are some serious grounds for disappointment for Acorn users of the program. Although the CD is advertised as being suitable for the Acorn, it turns out that the Teacher Support Material which is supposed to be on the disc to explain all the features of the CD-ROM is absent in the Acorn version, as is the free copy of the Odyssey Scrapbook, whatever that may be. This is supposed to 'enable teachers to tailor the program to their individual requirements by



Find the producer in this food chain

price on offer to children whose school has acquired the full educational version. Further information about Practise Science is available from the distributor, Granada Learning Ltd.

The software designers can be contacted at:

extracting material from the CD-ROM and applying their own text ... for presentations and assignments”—not much use if it is missing. Also absent from my CD is a collection of tools including a notebook, protractor, ruler and calculator. Again, sorry, but not with Acorn.

On the whole, though, here is a very useful testing tool for the teacher, and a good practice schedule for the youngster working towards a good result in the Science SATS. I would recommend this package very highly, both for school and home use. It is not cheap but I would rank it good value for money for the school and there is a home version at a very reasonable

Interactive Learning
4 North Street Court
North Street East
Newcastle-upon-Tyne NE1 8HD
Tel: 0191 261 1255
Fax: 0191 230 0944.

**Practise Science
for National Tests at 11**

Price: £45 +VAT
Site licence: £10 each extra user
Student version £17.01 +VAT
Supplier: Granada Learning Ltd
Granada TV, Quay Street
Manchester M60 9EA
Tel: 0161 827 2927
Fax: 0161 827 2966
Email: info@granada-learning.com

On The Icon Bar

Everybody has a small collection of programs that they use constantly and would hate to be without. Most of those in everyday use will have a regular place on the icon bar. Others are frequently called on, perhaps with a hot key, when needed and —

The program which I add to my icon bar every day is, not surprisingly, Ovation Pro, which is used to produce this magazine and for all my letter writing. I load it by pressing Ctrl+O which uses *Director* to run a little Obey program. This also loads

A look along the icon bar can tell you a lot about the computer and the occupation and interests of its user. We'd be interested to know what's on yours.

despite the title of this article — some may not actually put an icon on the bar.

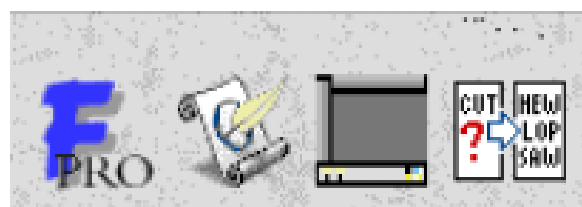
Other people's favourite, or even in their view essential, programs are always of interest and many of us have adopted some programs previously unknown after seeing them on a friend's icon bar.

This is what we hope will be the start of a new series when we can all find some of those little gems from fellow members' recommendations.

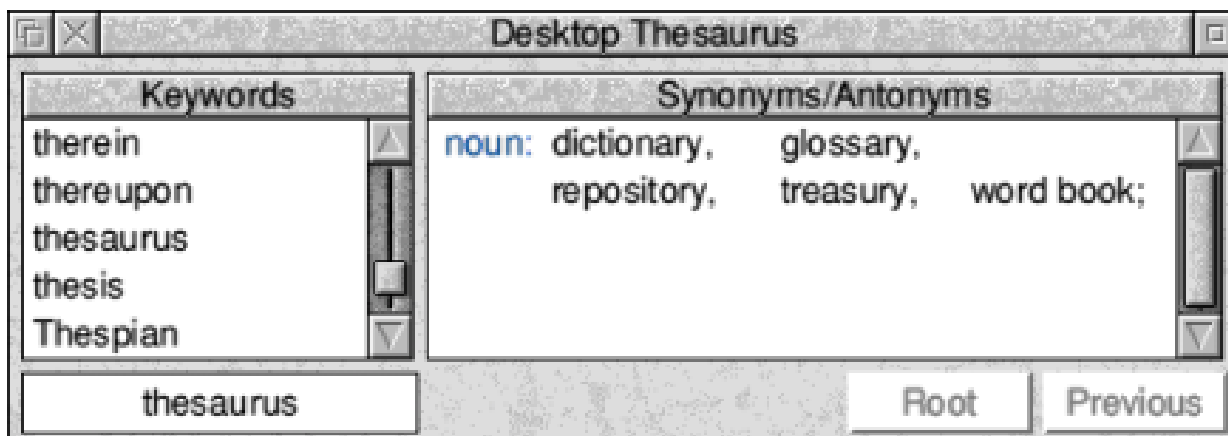
We start with a look at The Editor's icon bar.

Ovation Pro's *Desktop Thesaurus*, *EasyFont Professional* (from Fabis which, alas, has now departed the scene) and *Blinds*.

Ovation Pro doesn't need any lengthy description. It was reviewed in Eureka 20 and has been in continuous development ever since. David Pilling, who wrote it, has bought back the rights from Beebug so its immediate future is assured.



Ovation Pro and associated icons



Desktop Thesaurus explains itself

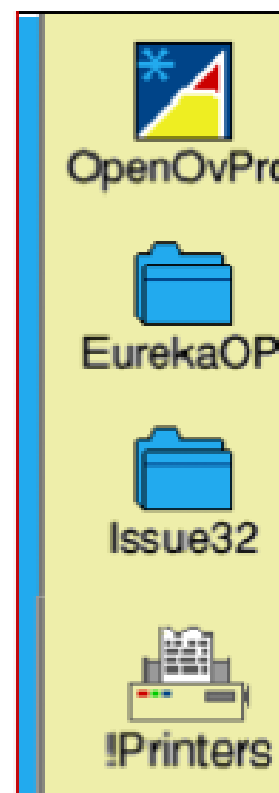
Desktop Thesaurus, as expected, offers a selection of synonyms and antonyms when you're stuck for just the right word or don't want to keep repeating one.

EasyFont Professional (reviewed in Eureka 21) is the well established font management system which allows you to make a selection of your favourite type faces and have them immediately accessible.

Blinds, from Quantum Software, allows you to make various selections of programs and files available on any number of pull-open blinds which can be placed around the edges of the screen. It provide, in effect, extra icon bars with files as well as applications, which can be opened and closed as needed.

The one I have loaded with Ovation Pro pulls open from the right edge of the screen. It contains a *Printers* icon and various directories containing the issue of Eureka which is being worked on, the contributions still to be included and various other files with associated material.

I have more blinds loaded on other parts of the screen when needed with different selections of icons for other purposes.



Some of the files on the Ovation Pro blind

The middle of my icon bar is occupied by four icons, for the 'regular essentials', loaded from the Tasks directory on power up.



Four icons which are loaded on power up

A click on *BootProgs*, by James Stevens of Jazsoft, opens a window which offers quick access to PreDesk, Tasks, Configure, Apps, Scrap and Resources either to see the contents or add to them. You can also have a clock with the icon if you wish.

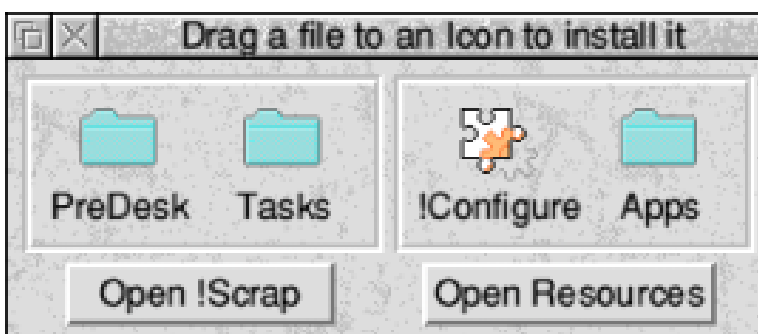
This valuable utility is freeware which can be downloaded from www.jazsoft.home.ml.org

TempDir is another little gem from Quantum Software which saves all the bother of having to create a fixed size RAM disc with the risk of losing everything in it when you switch off or if the computer crashes before you have saved the contents to somewhere

more permanent. With the TempDir icon sitting on the bar, with a useful reminder of the date, all you need do to park a file temporarily is drag it to the icon. It then gets stored in a directory named with the day's date and stays there for as long as you have chosen or until you delete it.

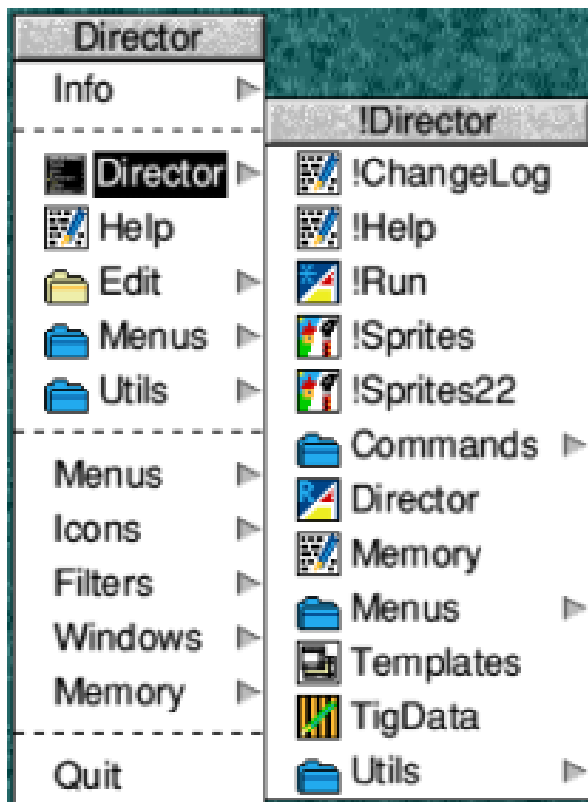
The current day's directory is opened with a *Select* click on the icon and all the older ones can be put on screen with *Adjust*. Empty directories are automatically removed.

This is shareware which requires a modest £10 registration fee after 28 days' trial. Download it from: www.cybervillage.co.uk/acorn/qs/



Easy access with BootProgs

The next icon along the bar is for the Zip drive and displays the name of the 100MB disc (actually 96MB) which is loaded. This was reviewed in Eureka 21.



A few of the menus in Director

Finally, there is Nick Craig-Wood's brilliant *Director* whose purpose is given simply as to 'Customise your Desktop'. This replaced two or three other icons on my bar and is the one I would really hate to be without.

It started life as a replacement for PinBoard+ and steadily added the features of more than half a dozen other utilities to make a compact general purpose program, including an icon bar clock.

Put briefly, Director allows you to

customise the Desktop by creating any number of menus and sub-menus of files, directories and commands quickly accessed from the pinboard or the icon. The commands can be activated with hot keys (as I use for Ovation Pro). It automatically creates menus for memory display and for recently used files and directories. A very useful icon to have on your bar.

Ovation Pro

Price: £150 including VAT

Site licence: £300 including VAT

Supplier: David Pilling

PO Box 22, Thornton Cleveleys

Blackpool FY5 1LR

Fax: 0870 0520 941

Email: david@pilling.demon.co.uk

Web: www.pilling.demon.co.uk

(Demo version available)

Blinds

Price: £24.95 + £1 post (no VAT)

(Overseas post and packing £3)

Supplier: Quantum Software

35 Pinewood Park

Livingston EH54 8NN

Tel: 01506 411162

Email: sales@quantumsoft.co.uk

Web: (demo version available)

www.cybervillage.co.uk/acorn/qs

The Club's Web Site

With the ever increasing use of the Internet by our members, the Editor thought this might be a good time for me to remind you all about the Club web site and what can be found there.

- Details of the discount scheme and which companies offer discounts to members of the Club

Related to the web site is the FTP site at <ftp://ftp.armclub.org.uk/> which

Got a modem? If so have you visited the Club's web site? Our Webmaster, Tom Hughes, explains how to access it and what you can find there.

For those who don't know, the Club web site can be found at <http://www.armclub.org.uk/> and contains a wide range of information on the Club and its activities, including:

- Information on what the Club does and how to join
- Full details of how to contact the Club
- A list of the current committee and how to contact them
- Details of any shows organised by or attended by the Club
- A summary of the latest issue of Eureka and where to find any related software
- Information on the Club's products

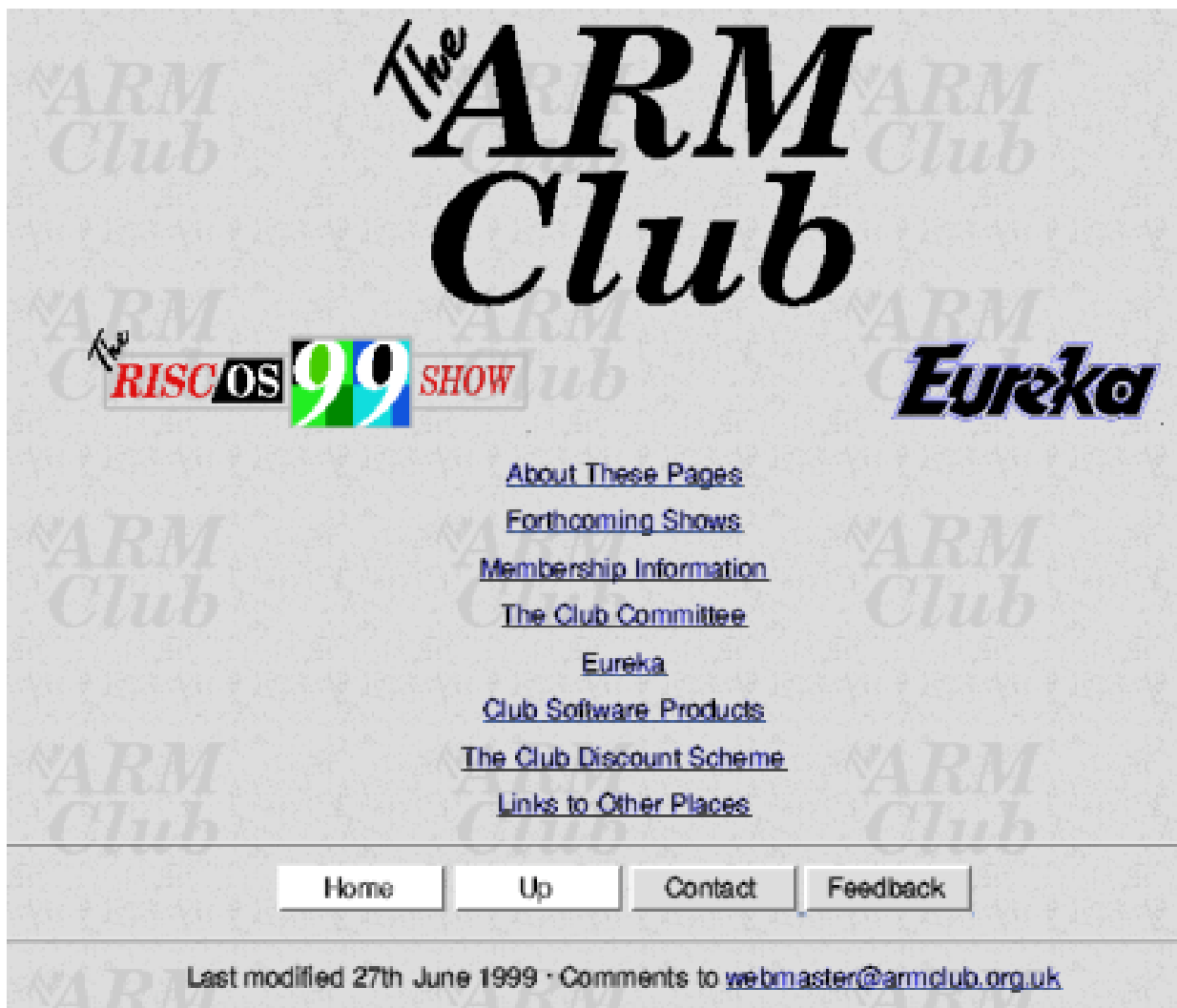
contains copies of old Eureka discs and other useful files.

Any reader who has a suggestion for improving the web site or needs help to access it can contact me as webmaster@armclub.org.uk for assistance.

Problems

To prevent me getting a few hundred identical problem reports I'll cover two of the most common problems here...

The first common problem is that users of the Voyager suite find themselves unable to access the FTP site using the Voyager FTP client.



The Club's Home Page, with links to the information you need

This unfortunately is due to a bug in the Voyager client and the easiest way to avoid it is to use the web browser to access the site using the URL given above.

The other problem is that of people getting “access denied” error messages trying to access the web site. This often turns out to be because they have the wrong settings for the

web proxy in their browser configuration —typically they are trying to use one provider's proxy while logged in via a different provider.

I think that just about covers everything so it's over to you, the members, now. Let me know if you have problems.

Science Keywords

As most of our readers will know, Sherston Software is a producer of good quality software for the education market. This piece of software entitled *Science Keywords* — *The Living World* is described as being “primarily designed to explain

pricing structure of some of their products to conform more with what they perceive their customers want and what a number of their competitors are doing already, so out has gone the old division of single user and site licences and in has come

A new CD-ROM, with words and pictures for pupils studying the living world in science, gets some approving phrases from teacher Chris Price.

frequently used key words within the science strand of the national curriculum.”

So now you know!

First a word of caution — my knowledge of science is strictly limited to O-Level type knowledge which was gleaned many years ago in my early secondary school career, so I am not a specialist in this area. On the other hand perhaps that makes me an ideal person to review the software!

Before I go any further I should explain that Sherston have altered the

prices for curriculum packs of 1, 3 and 5 CDs (the packs do get bigger on request). A single CD pack is £29.95, a 3 CD pack is £44.93 and a 5 CD pack is £59.90. (All prices exclude VAT).

Chris’s traditional gripe

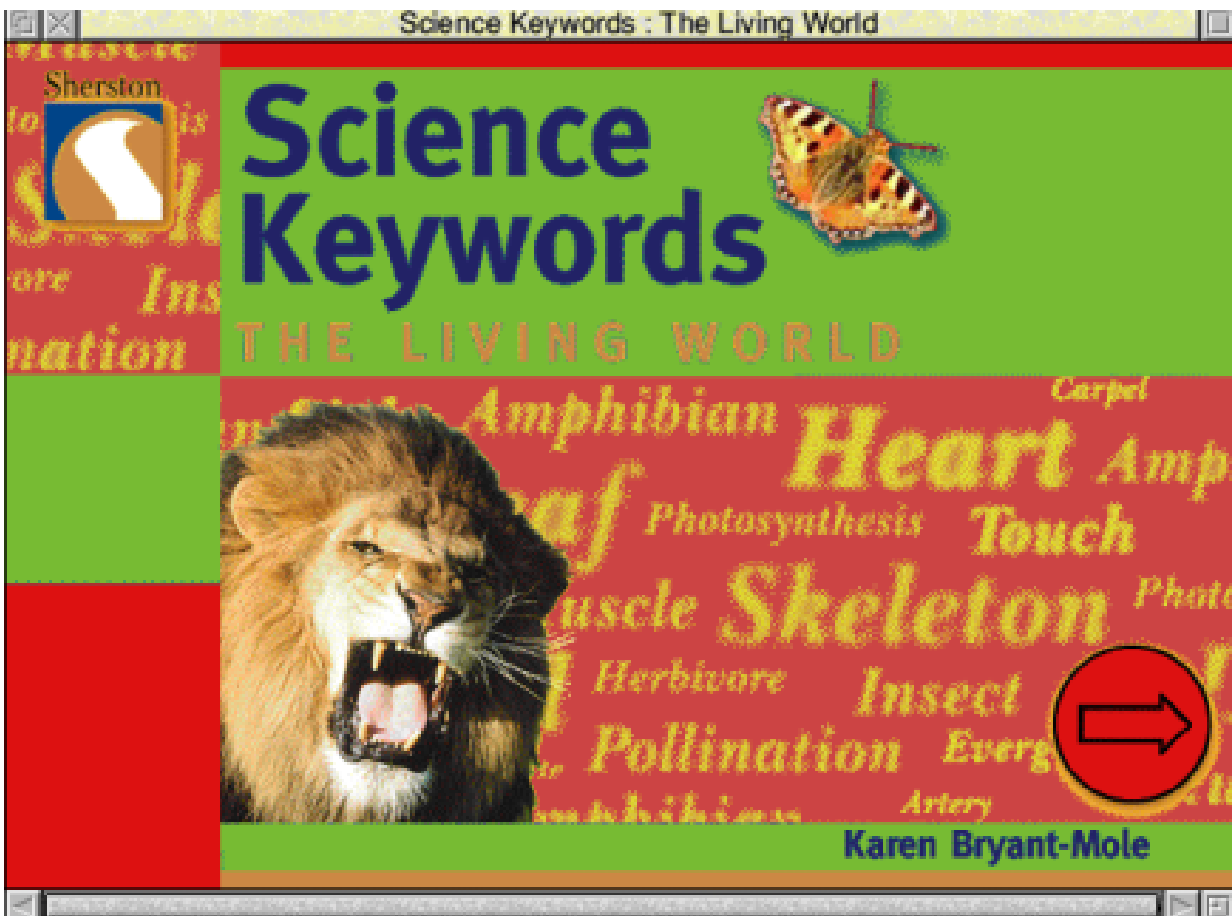
So what do you get for your money? Well you get the CD, of course, the usual well laid out instruction manual, an A5 quick start guide, an A4 page with an index of words, and an A3 sheet explaining the program icons. All these are well up to Sherston’s usual high standard of presentation and they come in the standard *stout box* (which, mercifully,

this time, now bears a title down the spine so you can see it from a book case!)

Now anyone who has read one of my articles before will know that I've got a bit of a bee in my bonnet about these boxes but that's only because I care deeply about your welfare. More to the point I see little point in shelling out hard earned cash for a piece of software only to have it mangled in transit thanks to inadequate boxing. Other companies please take note!

The software itself

On bootup the window displays the necessary options for you to load the program onto your machine (or a machine of *another* sort —if you're desperate I suppose!) Two things pleased me here. The first is that you are given the option to run the software from the hard disc (though you'll still need to leave the disc in which seems to defeat the object of the idea!) or from the CD. The second is that the program remains obediently on the desktop and does



The title page with morphing animals and plants

not take over the machine. Readers of anything I have written previously for the Club know that such software gives me the vapours!! The downside of this (such that it is) is a window of a fixed size that cannot be resized.

On to the program itself. The initial screen is a simple one but contains a nice bit of morphing with animals turning to plants to fruit etc and back again. Following the arrow brings you to an opening screen with some bold icons at the top. A yellow arrow takes you back to the main screen, a red *M* takes you to the main menu. Next is a green question mark. Click on this and a small screen pops up and explains the functions of these icons whilst a voice speaks the words very clearly. A blue *i* leads to further information and a purple hand allows you to exit the program.

The main menu has three options — ABC index, word search and picture index.

Click on the ABC index and you are brought to a screen containing an alphabet and the first few words of the index — *a* of course. Clicking on another letter in the alphabet and you

come to the words contained in that part of the index. There is the ability to scroll down the index and access words that way. A cursory examination reveals that each letter has about 10 words attributed to it. By the side of the words are two more icons — a blue ear and the *OK* caption on a green button.

Again clicking on the blue ear will speak the word. Clicking on the *OK* caption brings up a short explanation of the word.

Once in here you are you are faced with *yet more* icons. two more down the page (chain links and a camera) allow you to highlight the hypertext links to other pages and the camera icon brings up two visual examples of the subject. Click on either picture brings up a larger window with a *page* type icon on it. If you click on this then you are given a written (could be spoken) piece of text illustrating the example you have chosen. Here there are also the options to print the item out or to export it to another source (denoted by an icon that I can only describe as a folded piece of paper).

Clicking on *Word Search* brings up simple screen that allows you to input



The “baby” picture selection. Clicking on a thumbnail will enlarge it.

a word and then click on a *Find* icon to search for it. If the word is not present in the databank, then it will lead you to an option that contains a piece of text with your required word in it and, again, the ability to find hypertext links.

Pictures

Picture index brings up the same initial screen with the alphabet bar but clicking on a word brings up some pictures illustrating the word (the number of pictures varies). Clicking on an individual picture brings up that picture rather larger with a small piece of text by the side, again with the capacity to hear the words spoken.

And there, dear reader, you have it. It doesn't sound like much but the simplest ideas are often the best and this program does one thing very effectively — it helps to communicate to the young mind some

interesting scientific concepts in language that they ought to be able to understand and use to investigate simple scientific concepts.

Category: heartily recommended. If you're a teacher investigating life processes you're going to need this sooner or later. If budget allows I'd make it sooner.

Science Keywords:

The Living World

Prices (all +VAT): single £29.95
pack of three £44.93, five £59.90

Supplier: Sherston Software Ltd
Angel House, Sherston

Malmesbury, Wilts SN16 0LH

Tel: 01666 843200

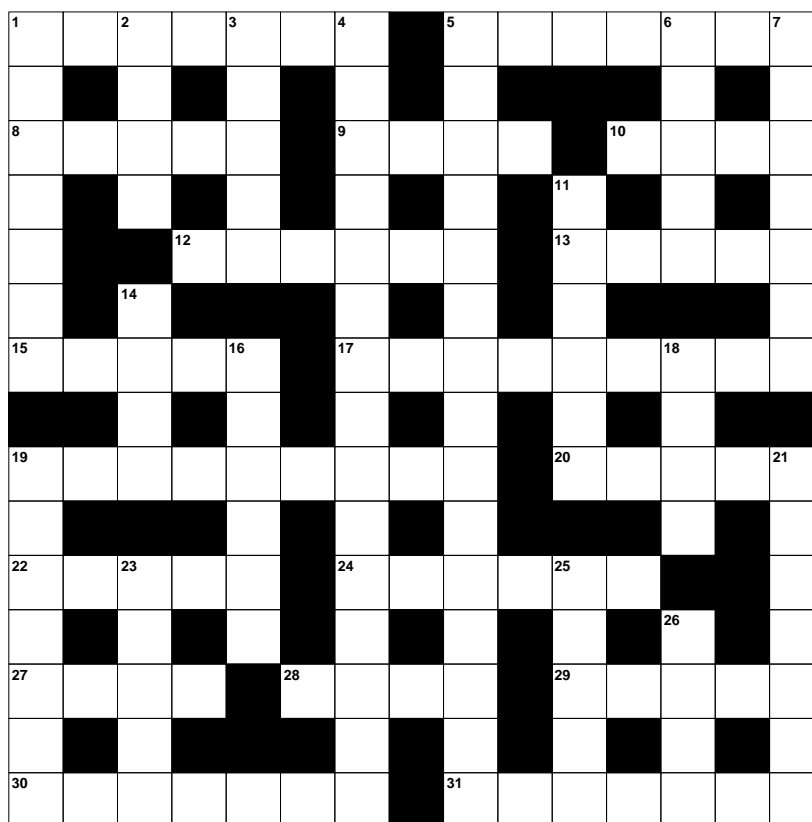
Fax: 01666 843216

Email: sales@sherston.co.uk

Web: www.sherston.com

The ARM Club Crossword No. 2

Compiled by Roger King



© Rex Puzzles

Across

- 1 Fruit with a thick rind and juicy flesh (7)
- 5 Port in South Humberside (7)
- 8 Major pilgrimage centre in Japan (5)
- 9 A wood of small bushes and trees (4)
- 10 Extinct flightless birds of New Zealand (4)
- 12 Association Football (6)
- 13 Device for linking computers by telephone line (5)
- 15 Sharp ridge separating two glacial valleys (5)
- 17 The largest monolith in the world (5,4)
- 19 Old name for a modern wind instrument (9)
- 20 One of the minor prophets in the reign of Hezekiah (5)
- 22 The husband of Bathsheba in the Old Testament (5)
- 24 Semi-precious gemstone (6)
- 27 Adolphe ----, who composed the ballet "Giselle" (4)
- 28 The standard monetary unit of Thailand (4)
- 29 The language of a race related to the Eskimos (5)
- 30 An acute infectious disease (7)
- 31 The longest river in the Republic of Ireland (7)

Down

- 1 The first woman in Greek mythology (7)
- 2 Any shark of the genus *Isurus* (4)
- 3 The capital of Japan from 794-1868 (5)
- 4 Wine bottles holding the equivalent of 20 normal bottles (15)
- 5 Inflammation of the stomach and intestines (15)
- 6 Headband formerly worn by unmarried women in Scotland (5)
- 7 Face veil worn by Muslim women in public (7)
- 11 Third compartment of ruminants' stomachs (6)
- 14 Queen of the Olympian gods (4)
- 16 Attendant and disciple of Elijah in the Old Testament (6)
- 18 The killer-whale (4)
- 19 In a running manner (7)
- 21 Cornish town (7)
- 23 Unfitting, inappropriate (5)
- 25 City in Nebraska, U.S.A. (5)
- 26 Inert gas, atomic number 10 (4)

The solution is on page 79

The Chairman's Drivel

As you will no doubt have gently gathered by now, this issue of Eureka is being deliberately timed to coincide with the RISC OS 99 Show that the Club is organising in Epsom. It seems quite a while since last year, when around the same time we all

our Operating System and numerous new hardware on the horizon. Software has continued to come out and, even with the absence of Acorn World, the other shows, Wakefield and especially our own Birmingham show have all proved that there is still

Our Chairman, Toby Smith, drivels (his word) about the Club and the Acorn/RISC OS scene and invites you to play a part in their future.

heard of the cancellation of 1998's proposed Acorn World, the canning of Phoebe and so on. A lot of water has gone under the bridge since then, and we have certainly lived in interesting times.

Acorn (the Company)'s wane has completed over the year, with the remnants of the company we knew split for what value they still held (Staff for Pace and ARM shares for others). No great new rescue plan emerged there and this would seemingly deem the end of Acorn for us enthusiasts. However, life does appear to still go on. In fact we've seen the release of a new version of

interest in Acorns and a commercial marketplace for it to thrive in.

In deciding to run a large exhibition type show to replace Acorn World, the Club has taken a big step. There certainly was a vacuum left by the loss of Acorn World and it was felt that there still remained scope for a large show in the south.

Nonetheless, organisation of an event like this is considerably more complicated and involved, and costly, than the running of our other regional open days. Your Committee felt that a show was an important part of keeping the Acorn scene thriving and

that the Club was perhaps the best placed organisation to be able to do that. It's been a hard slog but hopefully we, the Acorn enthusiasts, will reap the benefits for many years to come.

We're grateful to those who have helped in the organisation of the show, not only the sponsors and those providers we've worked with, but also, and most especially, those individual members who've given part of their time to help organise the show, convince exhibitors to come, arrange services and so on.

In fact that is what The ARM Club survives on: *members*. It might be a cliché, but "you make us what we are". An enthusiasts' club is only as strong and effective as the combined effect of the enthusiasm of its members. Therefore, if you feel there's any way that you can help your fellow members through the Club, then do speak up.

We're always looking for people to write articles for the magazine, *your* magazine. It's not hard; even I can do it. You don't have to be at all technical. In fact articles from the less

technical people are often the ones that more of the audience will appreciate. (This is conclusively proved from the number of people that talk to me at shows versus the number who swamp my wife, Gill.) (*Well, I know who I'd rather chat up, too. -Ed*)

Carrying on the same theme of member involvement, I'd also like to take the time to introduce the latest recruit to the Club Committee, Rilla Patterson. You'll probably all have read one of Rilla's articles for Eureka in the past and she has now agreed to take over the reigns of Membership Secretary from Matt Cook, who has been finding that they now interfere a bit too much with his new job. I'm sure you all wish her luck.

I hope to see as many of you as possible at the Epsom show and, if you are visiting, do pop along to the Club stand for a chat. If there's anything you feel you can give to the Club, then do get in contact, as always. Keep the faith!

Toby Smith
Chairman

Getting Into Desktop Publishing

A corn users have always been fortunate in having a choice of good desktop publishing programs for their machine. First, Impression made the running and now Ovation Pro, with its continuing development, has come to the front, with the innovative TextEase Multimedia

the subject won't qualify you to take over as Editor of The Times but even a little knowledge can improve your DTP work without being too dangerous.

First of all, you should be aware that different jobs can require completely

Desktop publishing can have its pitfalls but learn a few of the rules and keep it simple while you gain experience, as Peter Jennings explains.

providing some interesting features of its own and offering an attractive alternative.

All can be used as everyday word processors while word processor programs, although less versatile, can also cope with some DTP work such as the occasional leaflet.

However, in the same way that buying an expensive computer is not enough to make you a competent computer user, it's not the program but the way you use it which makes for good desktop produced publications. Reading an article, or even a book, on

different approaches. If you are planning a regular publication the first thing to decide is whether you want it to be a newspaper or a magazine —the format for each is completely different.

I am not referring here just to the size of the pages although, as I will explain, newspaper style does need a larger size than a magazine. A comparison of a page in a newspaper and one in a magazine should make the difference very clear although it's something that many newcomers to DTP do not always recognise.

The aim of a newspaper page is to look *busy*. There is no white space (unless an advertiser has paid for it!) and single-paragraph *fillers* are used to avoid leaving blank areas and provide little snippets of information to encourage the reader to continue browsing the page. Each page will usually contain a number of stories while a magazine may spread a single story over several.

A magazine, particularly one with a larger page size, should have a more spacious feel, with headlines often spread out into more lines than are actually necessary to accommodate the words. Magazine pages should not look crammed full.

The greatest freedom for the magazine designer comes with the larger formats, mainly A4. Leaving too much free space in an A5 publication, such as Eureka, can make the page look too empty.

Cross heads

The most immediate way of providing space is by using short paragraphs and separating them with a blank line. An occasional *cross head* (as in this paragraph) can be used to

highlight an interesting point and, above all, to add variety and interest to the page's appearance.

Putting titles, intros, and associated information, such as product details, in panels or within rules (as in Eureka) and using plenty of illustrations can give the pages an 'open' and approachable look to catch a browser's eye and invite reading.

Illustrations are usually used more lavishly in a magazine and not trimmed as brutally as on a newspaper page, where a picture can be cut tightly to the subject, excluding any 'superfluous' background and surrounding details.

Generally, the worst trap to betray an inexperienced editor is the use of fonts. So here is the easy guide to producing easy on the eye text.

The first and most important point to grasp is that the biggest and commonest mistake is to use too many fonts. Eureka uses just two font families, Trinity and Homerton, which every Acorn user has had supplied with his/her machine. This gives you eight type faces to play with

Serif

Trinity Medium

Trinity Medium Italic

Trinity Bold

Trinity Bold Italic

Sans Serif

Homerton Medium

Homerton Medium Italic

Homerton Bold

Homerton Bold Italic

*Two font families, a Serif and a
Sans Serif, and you have all the
type faces you need*

and these are enough to use with good effect.

Most modern fonts fall within one of two categories, serif and sans serif (usually just called *sans*). Serifs are the little angled strokes added to letters, as with Trinity. These make the text easier to read and this is the most common style used for the *body text*. Eureka uses Trinity but puts email and Web addresses in Homerton Medium to make them

easier to identify and pick out from the general text. We also use Homerton Medium for the Product Information boxes at the end of reviews and, in Bold, for cross heads. Trinity Medium Italic is used for introductions, to indicate a title or an unfamiliar term on its first reference and to emphasize the occasional word. *Never* use underlining for emphasis. This went out with the typewriter.

In Eureka we use Trinity Bold for titles on the Contents page and, in italics, for captions and to distinguish editorial notes added to an article or review.

If you have decided on a newspaper format you can use your whole range of typefaces for the headlines. In fact it is necessary to have a good variety when there are going to be numerous headlines on a page. The rule here is to make adjoining headlines as different from each other as possible. For example, if you have a Sans Medium headline in capitals, you could put a Serif Bold Italic upper and lower case against it for maximum contrast.

Eureka, being a small format magazine, never has two full sized

headlines on the same page and so keeps to Homerton Bold for all of them.

Notices and leaflets

So far, this has mainly been about magazines and newspapers but one of the most common uses for DTP is to produce notices, leaflets and posters advertising events. These can use some more ornate fonts for display purposes (although the fewer the better rule still applies) and it's nice to have an excuse to dig around among the more esoteric type faces we all tend to collect to use something like:

An evening of
Horror films

on the odd occasion. (I'll probably never get the chance to use that one again!)

Notices and leaflets allow you a great deal of artistic freedom but it helps to have a simple basic layout to start with. Here's one you can use:

The name of the organisers can go at
the top

THE EVENT NAME HERE

Then the rest of the details
including time, date, place
and admission charges

Contact details for advance bookings
and inquiries can go at the end in a
smaller type

*A basic design for a notice
advertising an event*

The biggest, boldest, type should, of course, be used for the event name. It doesn't have to be in capitals as long as it stands out and immediately catches the eye. Put it a little way down from the top and leave some space around it. At the very top you can put the name of the organisers in

a small size. The organisers may think their name is the most important part of the display but it's definitely of secondary importance to the event being advertised.

Most of the rest of the space will be taken up with the time, date, place and admission charges, which should all be the next most prominent information. A brief mention of some of the attractions can also go in but don't crowd the space. Make it easy to read and take in the information quickly.

Finally, at the bottom, give the other details which the readers will need when the notice has done its job and they have decided to attend. This can include advance booking information and a phone number for inquiries.

Imitate

Of course, you are free to deviate from this layout or ignore it completely but if you are doing a design job for the first time it can be helpful to have a basis to build on and allow you to add ideas of your own as you gain experience and confidence. This, of course, applies to all DTP. Don't be afraid to copy and

adapt other people's ideas. The easiest way to learn is to imitate. Look for and keep a few examples of the type of work you will be doing. The words on a page will probably be copyright but not the way they are arranged.

Sample layouts

You can buy, or borrow from the library, books with sample layouts for different purposes or, if you are really serious, books which cover the whole subject in far more detail than can be included in a single article. Many DTP books are based on using PC programs but the design ideas will not be limited to any particular type of machines so they may at least be worth borrowing.

Above all, use ideas you like and try to see why you think they are effective. You'll soon find that you can design good original layouts of your own.

If you want to raise any points arising from this article, or if you have any questions on desktop publishing, email The Editor at eureka@armclub.org.uk or write to the Club's Freepost address.

The Acorn Midlands Show

This show is now in its fourth year. The first two shows were organised by the Club itself (me in fact) but the third one was by John Stonier who helped to compensate for the Acorn World Show being cancelled.

moved to a new house in another part of the country, taken on a new job and got wed all within the last three or four months we thought that he would not be able to squeeze in a show as well hence the reason for me getting involved again.

After RISC OS '99 at Epsom the next big date on your calendar is at Birmingham in November. Ralph Sillett tells you how easy it is to get to the Midlands Show.

So far we have the following Exhibitors who have confirmed:-

APDL, Spacetechn, Castle Technology, R Comp Interactive, Eesox, iSV Products, Zenta Multimedia, Jonathan Duddington, Reflex Electronics, Clares Micro Supplies, Fortran Friends, The AAUG and DARC.

If any potential exhibitors are reading this please contact me asap as stands will fill up quite quickly in the next few weeks.

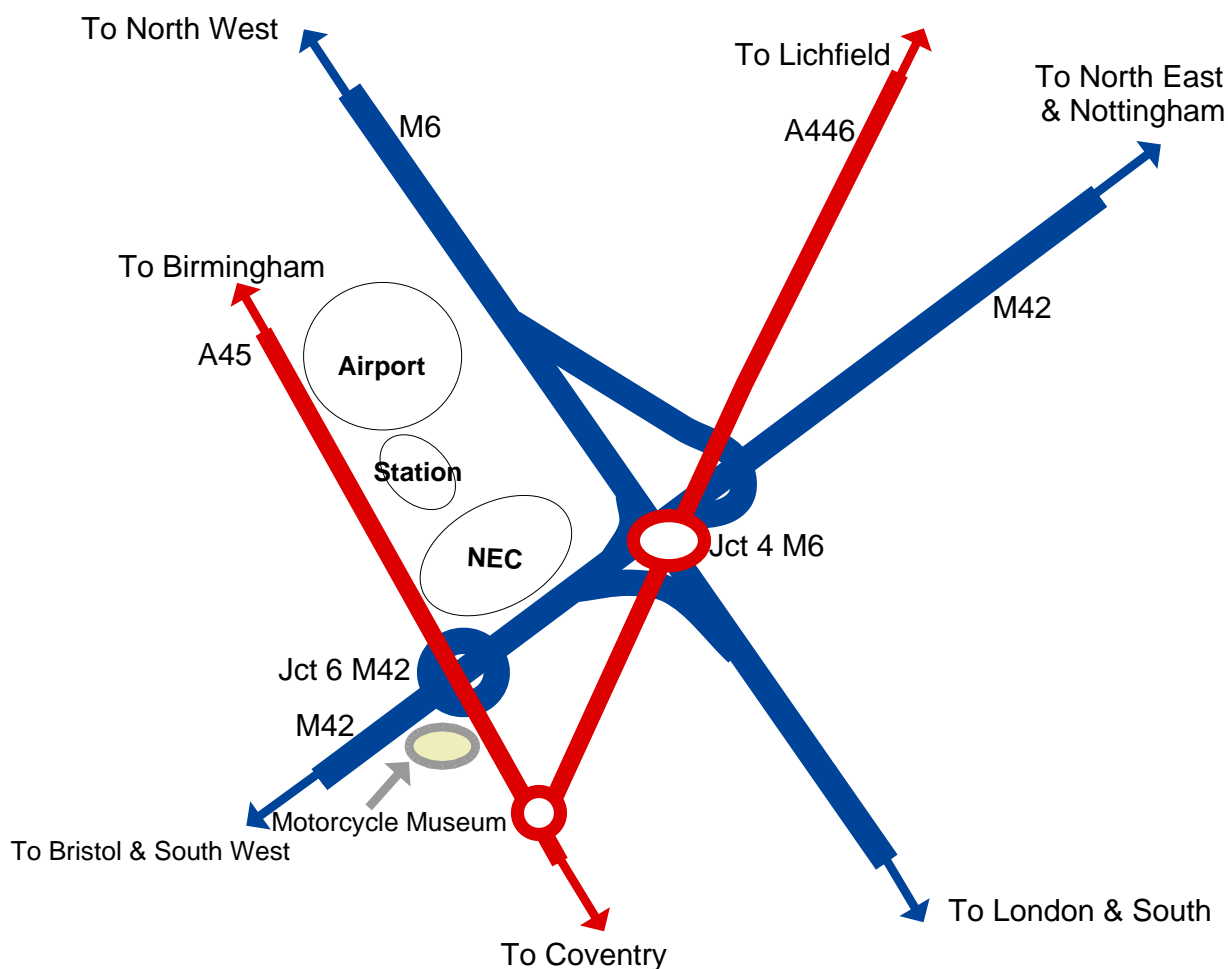
John Stonier is still involved with the show but due to the fact that he has

Due to the closeness of Christmas to this event there will be some good bargains to be had. Last year Spacetechn sold out of printers before midday and David Holden of APDL sold out of hard drives before 2pm. Other exhibitors also recorded record sales.

Directions

So far I have had requests from Scotland, the Northeast and Cornwall for directions to the show.

For those of you residing in the Northeast and Scotland as well as Cumbria this event is very accessible whether you fly, train or drive down (don't sail as there is no



By road, train or plane, it's easy to get to the Midlands Show

harbour/docks close enough). Birmingham International Airport is less than a ten minute taxi ride away as is the Station.

We will be laying on a free mini coach service from the station throughout the day. So those who fly down can get the monorail from the Airport to the station and pick up the mini coach from there.

By road it can't be easier other than it being next door to your house. Once on the motorway network from your home you should not have to get off the motorway until you get to Junction 6 of the M42. The entrance to the Motorcycle Museum is off the roundabout over the motorway.

For full details of date, time and place see the page opposite.



Supporting users in Central and North England

SATURDAY 20th November 1999

**The National Motorcycle Museum
Birmingham**

Doors open from 10am until 4.30pm

**Adults £2.50 / ARM Club members £1.50
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(Refreshments available)**

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Email: ralph@armclub.org.uk

<http://www.armclub.org.uk/shows/midlands>

Gill's Journal: Who's Top Spod?

Some months ago, in a Eureka far, far away, Dave Ruck claimed to be the spoddiest spod. Well, due to certain recent changes in his life (he changed to a job that doesn't give him email and, at about the same time, got a girlfriend) I think it must be time he was deposed from that position. This time, to be fair, the coveted position

about lifestyle is that it's a section in the Sunday papers that you have to flick past to find the technical pages, then this quiz is definitely for you.

The rules

1. This is taking the style of a Women's Magazine quiz, so basically, you have a series of

Gill Smith sets out the rules for those who think they qualify as a spod and issues a challenge to find the spodiest spod in the Club. Dare you take the challenge?

will be open to all the membership, by way of a points-based quiz. The one who scores the highest will be crowned 'Spoddiest Spod.'

Now, I know you're all raring to go, but I think it'd help to start with the rules. At the shows, I'm going to try to find a few willing victims from among the Committee, to give you a few example scores. It won't be Toby, as I've needed too much of his help with this. I should point out that this doesn't make him spoddiest necessarily, as some of the questions are 'lifestyle' issues. If all you know

questions, with possible answers a) to e). If you haven't ever read 'Cosmo' or 'Elle', borrow one from a convenient passing woman. If you haven't got a convenient passing woman, then there's a question for you later...

You pick which of the answers best suits you or are the nearest if they don't quite apply. Here's an example:

Example: Do you program?

- a) Do I what?
- b) Yes, the video.
- c) Only spreadsheets functions.

- d) A bit of C++, BASIC and I'm trying to learn Java.
- e) You name it, I can program it.

As you can guess, in this example, the person who voted (a) would be least spoddy, and whoever voted (e) would be in with a chance of becoming spoddiest spod.

2. Write down, or circle your answers. You start with a basic score of 75. This allows you to score a minimum or zero points (Yes, we take them away too!) and a maximum of 300 points. When you get to the end, you can then look up what you scored for each question. Add or subtract the points for each to reach your total score.

Anyone caught scoring 0 is recommended to seek help to bring you into this century. Anyone scoring 300 is even more strongly recommended to seek psychiatric help, in order to explain to you the term life, and then how to get one.

You can then turn to my analysis of whether you are a spod, or one of those strange individuals with a life. If you think you're in with a chance of

being spoddiest spod, we'd like to hear from you. We want to know who takes over the title!

At both the Epsom and Birmingham shows, some of The ARM Club Committee will try this out and let you know their scores. Try to come along, and see how you compare! In the meantime, there's some preliminary test results at the end.

The quiz

1. To start to write a letter you:

- a) Find your prettiest notelets and a pen.
- b) Get someone to get set up the computer for me.
- c) Turn on the word processor.
- d) Use my favourite text editor.
- e) handcode 'latex' into my emacs / vi session.

2. You see the letters 'http://www (etc)' on a TV/ billboard advert. What do you do?

- a) Ignore it and hope it'll go away.
- b) Tell my friend who's into computers.
- c) Scribble it down to look it up.
- d) Look at it for more information, and long for the day when you could just do that from your digital TV.

e) You could connect to it using your palmtop and mobile, but it's beneath you to look at a site that can't properly follow web address conventions — 26th September 1999 that should be <http://www.them.co.uk/product>, not <http://www.product.them.com> Yuck!

3. How do you go about planning a journey?

- a) I can usually work out where to go —my strong intuition helps guide me.
- b) I'll find a map and work out a route.
- c) I'll look it up on a route planner website, or get some software that does it.
- d) I'll look it up on my palmtop's route planner, and before I leave, check out the traffic news websites.
- e) I've got GPS installed in my car, and run Linux in it, so that all the traffic information gets gathered onto my laptop in the passenger seat, and I can dynamically re-plan my route where necessary.

4. What's on your bookshelves?

- a) Lots of classical fiction, and some pretty china figures.
- b) Mostly novels, a bit of sci-fi, and some reference books.

c) All sorts of things; some Douglas Adams, and a couple of 'Dummies' guides.

d) Well, after the CD ROMS there's not much space left, but I do manage to fit the complete Terry Pratchett series.

e) Just the O'Reilly 'Animal' series. That's all I need.

5. How would you send a fax?

- a) I wouldn't want to try something that technical.
- b) I don't know, I can never get it to send the paper!
- c) Dial the right number into your fax machine and send it through.
- d) I'd email to fax, it's more fun that way!
- e) Why bother? Doesn't everyone relevant have email?

6. What's a good meal out?

- a) TGI's, Chicago Rock Café, Waggamamas; somewhere it's good to be seen.
- b) I'll go anywhere my friends recommend.
- c) There are some good recommendations on the web.
- d) Pizza hut.
- e) Out? Medium Americano, as I try to revive the company's network.



7. What is a 'Smurf Attack'?

- a) Little blue people coming to get you!
- b) I thought this was meant to be a technical quiz?
- c) Is that like a virus?
- d) Network Denial of service attack.
- e) A denial of service attack using broadcast ping to a faked address on ICMP.

8. You're looking for a new fridge, and the salesman suggests a new barcode reading one. How do you respond?

- a) Does it still keep beer cold then?
- b) Isn't that a bit 'Big Brother'?
- c) Cool. How does that work then?
- d) Great —so it can email the list directly to the shop and I'll never need to go shopping again!

e) So it'll plug into my house flood-wired LAN, and I then telnet into it, like a router, to configure it for my mail server's settings.

9. Have you ever had a girlfriend/boyfriend?

a) Yeah, but I change them every week.

b) A few. The least said about some of them, the better!

c) I had one a while ago, but it's been a couple of years.

d) I 'dated' someone on a talker once, but they refused to ever meet up, so I'm worried they weren't the opposite sex.

e) No, but I've set up a Philippa Forester fan club newsgroup, and we swap JPEGs of pictures we get of her, swap any news about her, and sometimes meet on a talker. I've created her a world wide presence. I'm hoping she'll spot the site and realise how dedicated to her I am. My backdrop gives me a random different picture of her every day. One day...

10. How many email addresses do you have?

a) Do you mean "Where do I live?"

b) 1-2

c) 3-5

d) I have as many as I like on my dial-up account.

e) Infinite within my domain, spod.org

11. When you go somewhere on business, what's most important in picking a hotel?

a) It's got to be the right sort of place that I'd like to be seen at.

b) Nice comfy bed, and a gym.

c) I like to have a phone, and somewhere I can put the laptop, in case I need to do a bit of work.

d) I need to be able to connect to the hotel's network, so I can send and collect emails.

e) Nothing really —I carry all the equipment I need my palmtop, phone, etc. I suppose it's always good to have a table.

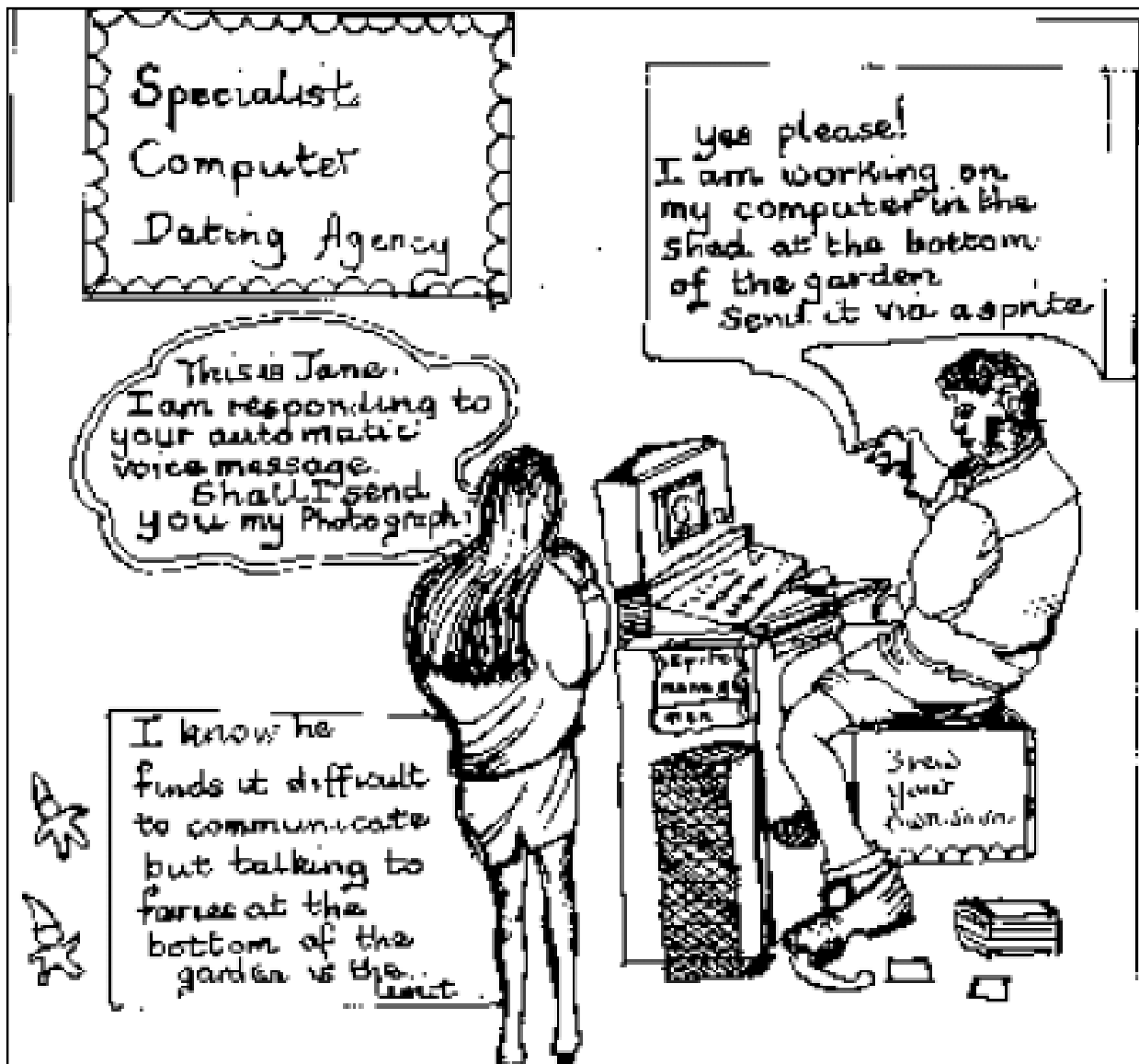
12. How do you plan your social life?

a) I call a few friends, and maybe phone for cinema times.

b) I'll often send an email a few days before, but we check arrangements on the phone.

c) I'll often check the websites for cinema times, before I suggest a few possibilities to my mailing-list.

d) I'll check on the talker to see if anyone's got plans, and we'll all look



up the relevant websites to see what we want to do.

e) Well, first I set up the relevant mailing lists to send me details of cinema times and anything else that's on locally. There's an automatic process to cut out anything more than 15 miles away, unless it fits the criteria to be really interesting. That's all rule based stuff. Then my box automatically collects reviews of the

films from uk.rec.films, and on anything else that it's received, and it matches the film reviews to the cinemas and times, creating me a series of web pages. Last week, some junk slipped through, but by the end of Saturday night, I'd the necessary extra rules set up. Now I just need to find someone who'll go to something with me...

13. You're on your way somewhere, and you know you're going to be late.

Do you:

- a) Not a problem —one likes to be fashionably late.
- b) Panic a bit, and try to rush the rest of the way.
- c) Phone ahead —you've got your mobile with you after all.
- d) Send an SMS message -- sometimes just to give an ETA when you aren't late.
- e) Send them an email —you know they'll still be at their computer.

14. The number of women you know is:

- a) Count the female under 50s in Who's who, and that's about right.
- b) Loads. Why?
- c) A few I used to go to school /college with.
- d) Less than the number of computers I've got —but that's only because I've got so many computer's honest!
- e) All my machines are female and individually named. My latest machine is called Sandra, and I'm having a lot of fun with her!

15. Name an Operating System:

- a) Brain surgery
- b) Is that something to do with

computers?

- c) DOS
- d) RISC OS —by far the best, you can do so much more on this sort of platform.
- e) Well, tell me what you're trying to do, and I'll tell you which of the 103 I've used best suits it.

The points

For each answer (a) take five (5) points off your score.

For each answer (b) you neither lose nor gain any (0) points.

For each answer (c) add five (5) points to your score.

For each answer (d) add ten (10) points to your score.

For each answer (e) add fifteen (15) points to your score.

The categories

0-50

Well that's pretty pathetic. Just what are you doing reading this magazine? I'm sorry if I mislead or excited you with the mention of Cosmo earlier. Tell me, have you worked out that Acorn refers to something more than those little things that fall off Oak trees?

51-120

Well, you're on this planet, which is a good start, but there might be a few occasions when you want to use the tech support number. You just have a bit too much of a life to really be a spod! Don't tell me you've even got friends —real physical ones, not just on the Internet?

121-180

You seem to have actually got a balance; a bit of a life, but technically you mostly know what you're doing, and you can bluff your way in spod-land when you have to. You might even have discovered the joys of home-cooked food, not just take-away pizza. With other people. Be careful though; those other people might take time away from getting your house onto a LAN.

181-240

You really know what you're doing and have a job title with the word 'software' in it to prove it. You could well be a local spod-king. Be careful to hang around the right places (the local art school, your company's sales & marketing department) if you're really going to impress people with your technical skills. Now get

practising your speed draw of the Palmtop from it's holster!

241-300

You're well and truly in the running for the crown of spoddier spod. You wouldn't know a life if it painted itself pink, and danced across your screen singing 'I'm a life, I'm a life.' You'd probably wonder who you should kill file for sending you the animation. When did you last drink something that wasn't coffee, or eat something other than pizza?

See you at Epsom!

Cartoons by Jan Pearce

Committee Spods

Four bold members of the Committee have given the quiz a test run and submitted their scores. Some of these have been adjusted slightly where the candidate has been uncertain of his reply to any of the questions.

David Ruck 195

Tom Hughes 187

Matthew Cook 175

Mark Smith 125

Free For All: Easy Upgrading

In this issue I'm going to look at various free or nearly free utilities which are available to improve or patch the operating system —which will be particularly relevant for those of you who do not have the benefit of RISC OS 4. Many of the

software, including Writer, a basic word processor, Organizer, a diary/address book system, Vector, an advanced drawing package, Synth, a MIDI synthesizer, and ImageFS2, which allows conversion of foreign image filetypes.

Nick Boalch, who has now taken over our new series on PD and shareware programs, tells RISC OS 3 users where to get some of RO4's improvements.

shortcomings addressed by the software covered here have been dealt with in RISC OS 4, but it is possible to upgrade your RISC OS 3 system to something resembling RISC OS 4 functionality — all using free software.

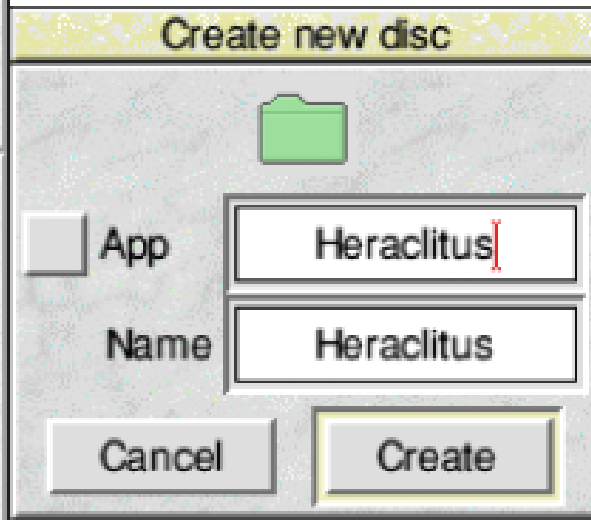
The listed benefits of RISC OS 4 are the new F+ disc format (which allows long file names, thousands of files per directory, support for larger drives and much more efficient use of space), speed increases over previous versions of RISC OS, a new easy configuration system and various cosmetic improvements. RISC OS 4 is also supplied with several items of

Long Filenames

Addressing the new disc format first, there is not a great deal of free software available which provides this level of functionality. However, the long filenames/files per directory issue is well catered for: you can choose from Wonderworks' X-Files, Richard Atterer's raFS, or Jason Tribbeck's LongFiles 2, each of which has its own particular strengths. X-Files is an image filing system (i.e. it pretends to be part of ADFS or IDEFS, or whatever), LongFiles 2 is a system hack and raFS is a separate filing system in its own right. Each one has its advocates and detractors, Personally I have found



raFS —a filing system for long filenames in RISC OS 3



PinPatch soup up the appearance of the desktop and the functionality of the pinboard, bringing them up to a level similar to RISC OS 4.

As to icons, those without the new RISC OS 4 icons, or who dislike them, will be interested in the excellent Design

raFS to be the most reliable and useful, but other people say differently.

X-Files:

www.wonderworks.co.uk/free/xf.zip

raFS:

www.informatik.tu-muenchen.de/~atterer/riscos/rafs116.zip

LongFiles:

www.tribbeck.com/longfiles/

Cosmetic Changes

RISC OS 4 undoubtedly looks and feels a lot nicer than previous incarnations of the operating system but here again various free patches can help the RISC OS 3 user. Matthew Bullock's 3DPatch and

Iconset by the Xperience, which are truly superb (although opinion is divided as to whether they are better than the RISC OS 4 set). Also, there is a collection of different authors' icons available from Dave Edwards.

3DPatch:

dialspace.dial.pipex.com/matthew.bullock/3DPatch.shtml

PinPatch:

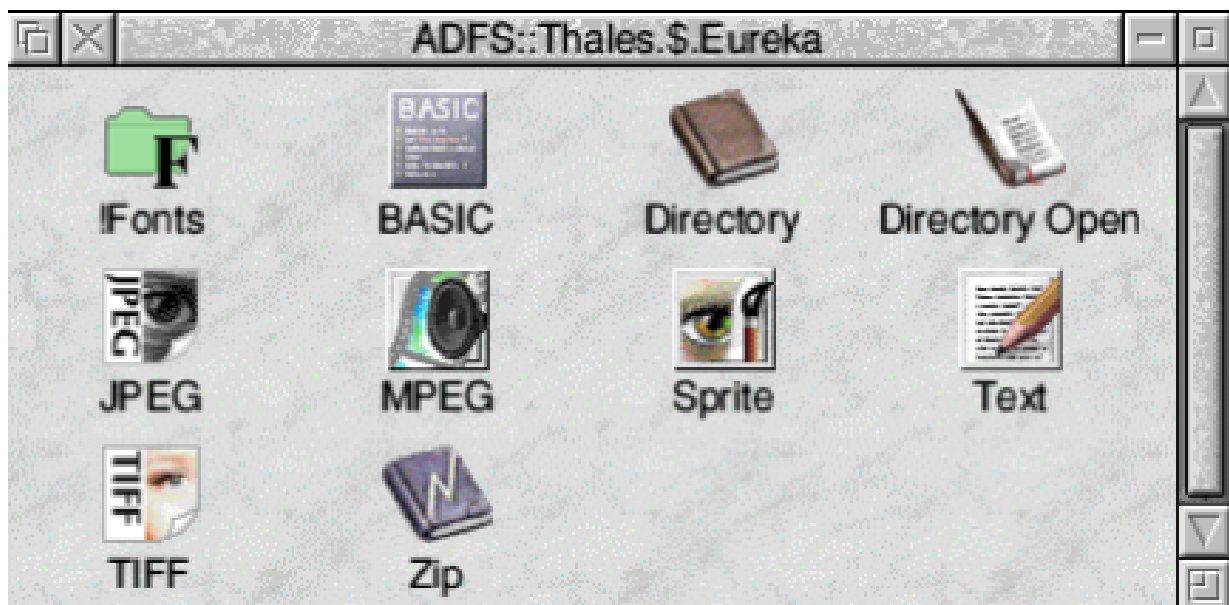
dialspace.dial.pipex.com/matthew.bullock/PinboardPatch.shtml

TXP Design Iconset:

www.stud.uni-hannover.de/~bcl/Xperience/iconset.html

Various Icons:

www.dave-edwards.com/riscos/icons/

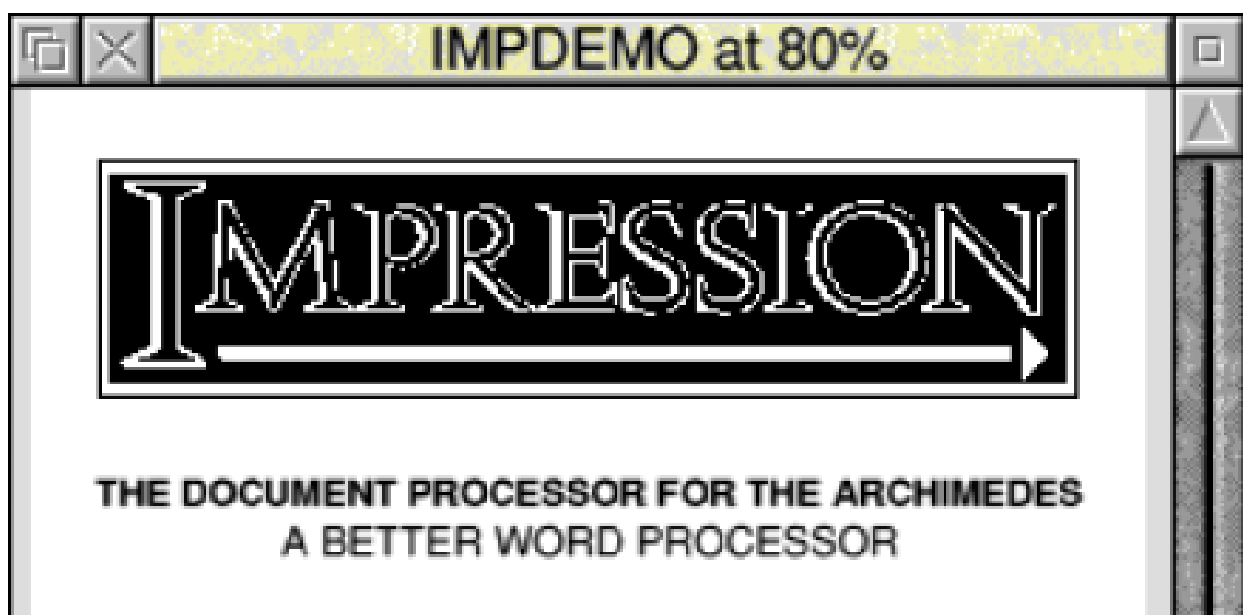


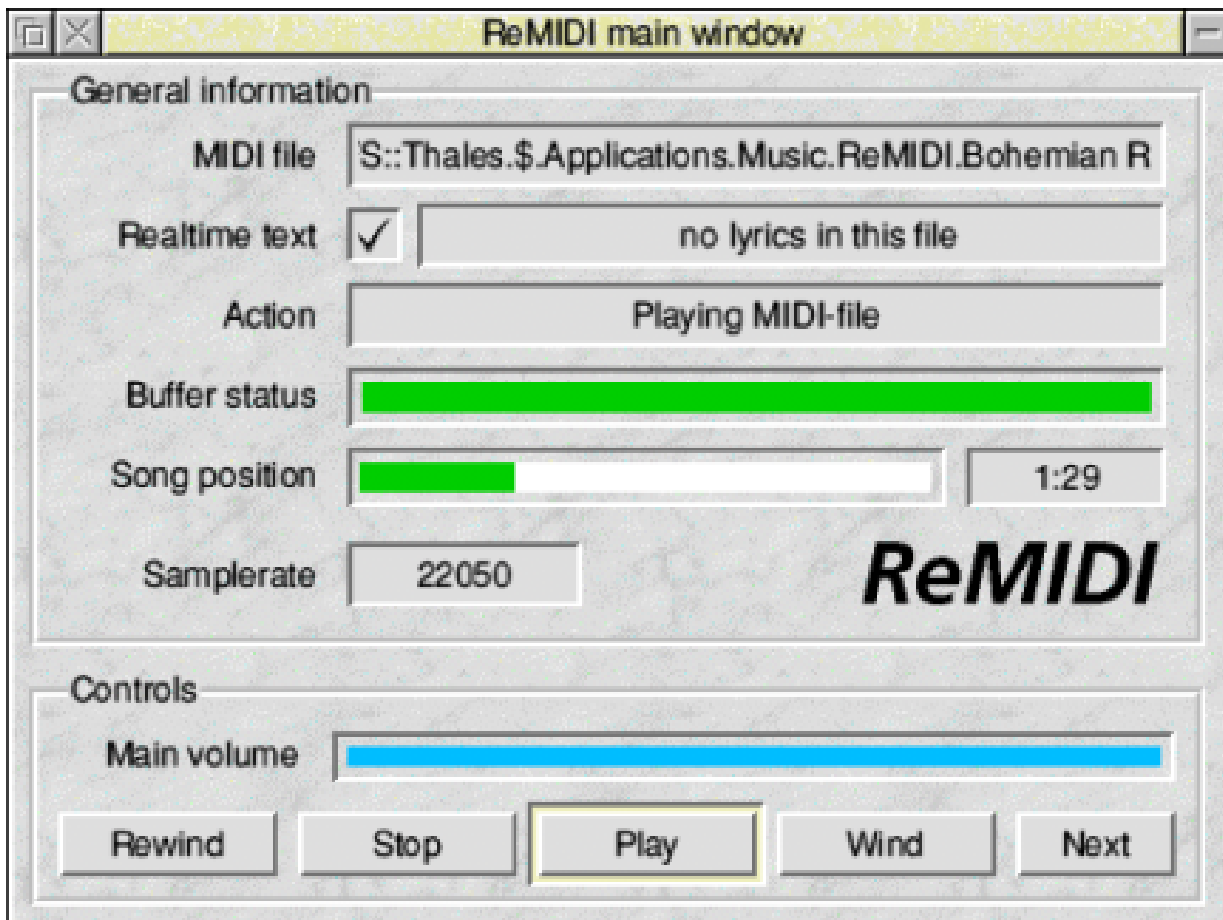
The TXP Design iconset for those who dislike Acorn or RISCOS Ltd icons

Bundled Software

Of the bundled software supplied with RISC OS 4, Organizer is PD anyway and several of the others have acceptable PD alternatives. Impression Junior is now free from Computer Concepts and will perform most, if not all, of the functions of

Writer. A good alternative to the cut-down version of ESP's Synth is Michael Dennis-Biemann's PD offering, ReMIDI. A combination of John Kortink's Translator, the Acorn ChangeFSI, and Keith Sloan's WMF->Draw will handle the common file formats that ImageFS





ReMIDI for music while you compute

can deal with, although not transparently to the user.

Organizer:

www.organizer.ukgateway.net/

ImpressionJunior:

www.cconcepts.co.uk/support/junior.htm

ReMIDI:

www.stack.nl/~michaeld/remidi.html

Translator:

web.inter.nl.net/users/J.Kortink/

WMF->Draw:

www.argonet.co.uk/users/lukebosman/software/

I would unhesitatingly recommend the upgrade to RISC OS 4, which is in my own opinion hugely better than previous versions of RISC OS. However, for readers who can or will not be upgrading to RISC OS 4, at least you can get some of the way there using free or nearly free alternatives.

I'm Forever Blowing Bubbles

As a sponsor for the RISC OS '99 Show, I was asked to design an advert to go in Acorn User magazine. In a weak moment I agreed and was faced with producing a double page — something even in the most prosperous times Spacotech had

Desperately casting about for a theme to carry the message, I came up with a blank, creativity zilch! I decided therefore to look through photo and image resource banks to see if anything caught my eye. I found the picture of the bubble girl on the

Chris Hornby of Spacotech, who produced the eye catching two-page RISC OS '99 advertisement for the Acorn User, explains in detail how it was done.

never been wealthy enough to finance! Luckily for The Arm Club, the space had been donated by the magazine; all I was faced with was the problems of what to put in the ad.

The requirements for the advert were fairly open ended; I was asked to design and include a logo for the show, mention the sponsors' names, outline a few of the attractions, say when, where and how much, make it eye-catching and keep it simple.

Right, no problem! Also, of course, it might be good if I used Photodesk, our main product!

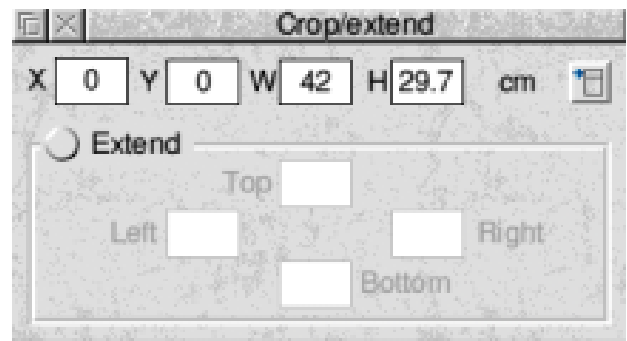
Photoshop Wow! CD. How do Americans think of these names? (Please look out for Spacotech's new CD called *Fotoz R Us*).

Anyway the bubble girl conjured up a few phrases I had heard recently on the news groups: "Vapourware", "Full of hot air", "Has the bubble burst?" etc. These connotations were fairly negative but, what the hell, I liked the picture and it had possibilities for image manipulation; it was certainly eye-catching. Without much more agonising, I started the technical bits which will be described hereafter.

Sizing the Image

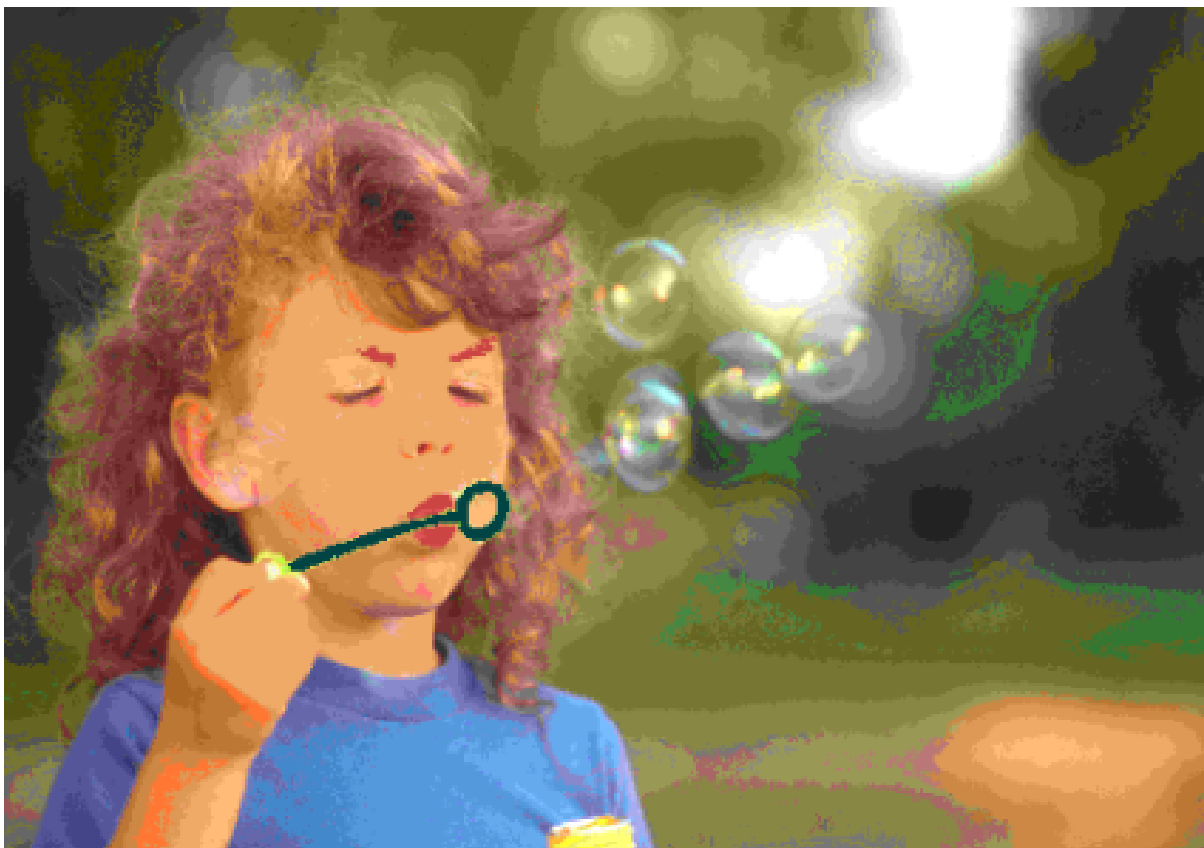
After having experimented with fluffy airbrushed borders and so on, and only coming up with clichéd, Photoshop-esque effects, I decided to make the picture of the girl fill the whole background.

This meant that it should be sized exactly to a double page spread (A3) at the resolution specified by AU, 200 dpi. Luckily the size of the source left plenty of room for manoeuvre. I defined the resolution of the image as



Defining the crop box

200dpi in both the X and Y axis in the Image resize option within Photodesk and then entered the Crop/Extend dialogue and defined a crop box exactly 42cm x 29.7cm, this being the size of an A3 print.



The cropped image (the colours do not reproduce well in black and white)

I now dragged the box around on the image until I got a position with the girl on the left and a large open space on the right. I then cropped the image leaving the image positioned as it is seen in the advert.



This left me with a frame 3307 by 2339 pixels, a 37MB image which represents the required size at 200 dpi. I have gone into some detail here, because we find from customer feedback, that the relationship between dpi and image size is the least understood part of image manipulation.



Designing The Logo

The logo was designed in Draw and was intended to closely follow the style of the RISC OS 4 *Cube* and the RISCOS Ltd logo. The only added twiddly bit was to make the little angled “The” in the same style as the ARM Club logo.

To complete the Draw file in preparation for dropping it into the main frame, it was only necessary to

find a picture of the Queen’s Stand at Epsom, (scanned in from their brochure) and the logos of the sponsoring companies; Acorn User, RiscStation, Castle technology and ourselves, Spacotech. The most difficult part here was to try to give them equal precedence/prominence without stepping on anyone’s toes! The finished Draw file was as seen above. As a double page advert is essentially seen as two opposing pages, I decided to put the logo on both pages to give an overall balance. Within Draw, the *Select all* option was chosen, then *Save selection*, dragging the save icon directly on to the main Photodesk canvas.

Now all that was necessary to do was to reduce the size of the imported image until it was about right—from memory, it was around 200%—drag

it to its final position and click on *Render* in the Graphic rendering dialogue, making sure antialiasing was enabled.

Now the original draw file was shuffled to produce the result seen in the final advert and the above procedure repeated.

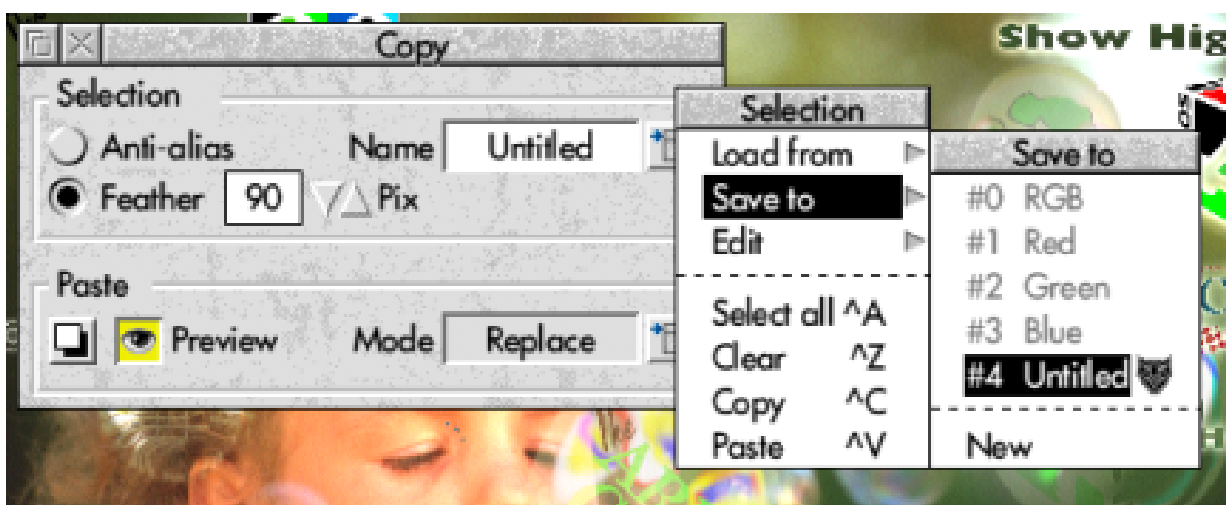
Adding the Text

The text giving all the necessary information about the show: prices, venue etc., was superimposed upon the image using Draw in the same way as the logos were added. It was necessary however to lighten the area of the image where the black text was to appear in order to make it readable. I thought it would be nice for the area to have a feathered edge, and I used *Channels* to achieve this:

Using the *Copy* option from the cut and paste toolbar, I selected an area using the pointer, of the required size, with a large feather radius defined, about 90 pixels. Then saved the selection to the mask channel. This option is provided in the *Copy* dialogue. See the diagram below — easy what?

Now you will see that the whole image is masked except the area you wish to lighten. The easiest way to do this would be to take some white paint with the magic wand set at *Whole image* with a strength of 50% and apply it. Your text may now be applied to the area using whatever method you like. I used Draw.

There is also some text added to the image with a *Neon glow* effect. This



Selecting an area to lighten for the text



A similar method was used to provide a glow for the Cerilica and RISC OS 4 logos.

To do this, have your logo in its own canvas. Mask all areas that you wish to remain transparent. In the *Copy* dialogue, load

The text panel with lightened background

was achieved using the Neon effect only available in Photodesk 3, although with a bit of jiggling this could be done using Photodesk 2 or Light. Still in the *Cut and Paste* toolbar, choose *Text* from the *Drawing tools* option. Choose an appropriate font and size, I think I used Homerton Bold at around 90pt. Now click on the image where you want your text to be, click on the clipboard icon to place it on the clipboard, in the copy dialogue set a large value for *Diffusion*, a large negative value for *Shading*, and enter 0 pixels each for the X and Y offset. Now click on the confirm button (the tick icon on the toolbar). It is as simple as that.

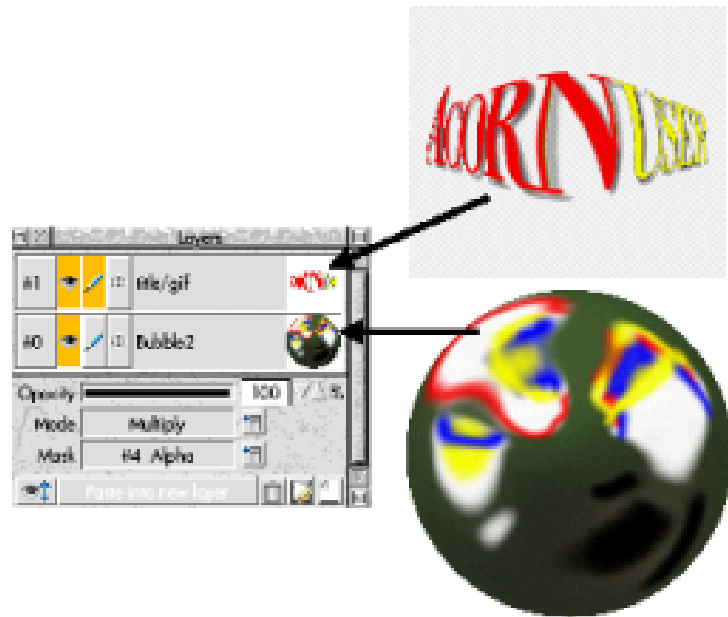
your selection from the mask alpha channel. Now drag the selection onto the main canvas and paste it using the same values for *Diffusion* and *Shading* as you used for the text.

The Bubbles

The only feature of the advertisement left to describe is the bubbles.



Although this looks hard, it is very easy to do. The first thing to do was to create a bubble template. This I did manually by creating a neutral grey disc and spraying highlights of colour and white on it. I then applied a lens filter (available as a plug-in) to give it a sort of spherical look.



The reason why the base colour is a neutral grey, is that when the template is pasted on another image using the Screen paste mode, grey will appear as being almost transparent, like a bubble. Try pasting this template to another image, using different paste modes and opacities.



I wanted all the main features of the Advertisement to be reflected in bubbles. I chose the ARM club logo, the AAUG logo, the various sponsoring companies' logos as well as a picture of the Queen's stand, the RISCOS 4 Box and Cerilica's logo. For each of these I made a bubble and I used *Layers*. Keeping the template as the

Wrapping the name around the sphere

background layer, I pasted the logo or whatever on the second layer and distorted it using the lens tool to make it look as if it was wrapped around the surface of a sphere.

It will be seen from this example that the two layers are combined using the Multiply option. It is only necessary now to merge the layers. You may use the copy option on the clipboard to do this. Your copied image will not be layered and your original image will be preserved for further work.

All that remains is to mask the unwanted white border around the ‘bubble’, select it (Ctrl-A) and drag it into position on the main canvas.

Of course, to make the bubbles vary, different ones were resized, distorted,

rotated etc. If you wish to know how to do this RTFM!

Finally the whole image was converted to CMYK to see if there was anything glaring there which could not be handled by inks!

It is hoped to get relevant images from this article up on The ARM Club website for closer examination in colour. If this is not possible we may put an HTML version of this article on our site, as well as a reduced size version of the final advertisement.



Getting On The Internet

Actually I've been using the Internet for over 13 years now, starting at university and then gaining access through work, but in all that time I've never had a connection at home. At first this wouldn't have been possible, as ISPs (Internet Service

or a commercial offering from Acorn or ANT?

- Which ISP to go for: paid monthly subscription such as Demon or Argonet or the myriad of free ones that have appeared?

Thinking about whether to get onto the Internet or to change to a free ISP? David Ruck offers advice from his own experiences, in the first of a two-part series.

Providers) didn't exist, and later I preferred to use a fast ISDN line at the office rather than run up my own bills. However, I found that as more and more of my friends used email to keep in touch and make social arrangements, I was missing out by not being able to receive messages at weekends and on holidays from work.

- Will setting up and configuring the system be a nightmare?
- What will it be like in use? Will it be able to access as much of the Internet as a PC can?
- The cost: would I be running up huge phone bills?

There were several things I was worried about wiring up my system at home:-

Well here are my experiences in setting up a system and overcoming these worries.

- The equipment: which modem do I get, makes and models, speeds 33K or K56/X2/V90, or even ISDN? What software: a collection of free software

Equipment

The first thing to think about is the hardware. As the Internet is getting ever more bandwidth hungry with

textual email and simple web pages giving way to large email attachments and graphics heavy web pages, the faster your connection the better. Unfortunately speed equals price, so you can choose from very cheap modems working at 33.6K and more expensive ones at 56K. There is also the digital alternative in ISDN links, which give 64K or even 128K, but need new lines put in and require much more expensive Terminal Adapters instead of modems. Other faster technologies are beginning to appear, such as cable modems and advanced digital ADSL, but these are either prohibitively expensive or available in very limited areas at the moment.

I rejected a 33.6K modem as the cost saving would probably be negated very quickly by the longer calls and larger phone bills. After using ISDN I was tempted by its advantages, its 64K speed equates to a maximum though is markedly higher than a 56K modem, which will hardly ever manage to connect at their maximum speed. It also has near instant connection setup compared to the 20-30 seconds it might take a modem to dial and negotiate; meaning you

can set it up to dial on demand when you click on a web link and almost not notice the delay (or your bill going up!). You can even link the two lines you get with ISDN to form a double speed 128K connection but then you do pay for two calls. The drawback for this was while the BT Home Highway scheme looked very tempting, the large monthly rental fee of £30 put me off. Maybe when it has come down to £30 per quarter I would consider it.

This left selecting a 56K modem. There are now lots of cheap unbranded modems available from PC box shifters but some care should be taken. It is important to make sure it is going to work with your computer and if it is unreliable it will end up costing you more in phone bills in the long term. It is worth checking with the supplier of the software that you are going to use, that a driver has been written for the modem. Then there is the standard. It started off with two competing standards 65KFlex and X2, which has now evolved to the official V90. Your ISP will support V90 but may or may not support the early ones, so can the modem be upgraded? Most

modems can be upgraded by reprogramming their flash memory but in some cases this is only possible by running a PC program.

I took a bit of a risk here. I found out a friend was selling an unused Hayes Accura 56Kflex modem for a reasonable £60 (usual prices range from £40 for an unbranded model from a box shifter, up to £130 for a branded modem such as this). I recognised the make, and was assured that it would work on an Acorn and was upgradable. The first thing I found was it didn't come with a serial lead, which is not unusual, so make sure you get one in advance. Secondly when I got it up and running I went to the Hayes website to find an upgrade to the V90 standard, as without it I could only connect at 33.6K to my chosen ISP. Unfortunately it turned out that the company has gone into chapter 11 bankruptcy and, while the upgrade was mentioned, their support website was off-line so I couldn't download it. I spent hours searching for an alternative source and it wasn't until I used the dogpile multiple search engine (www.dogpile.com) that I managed to track one down. It was in the form of a PC executable,

which I was able to run on my PC card with no problems. A word of warning here, people have reported that if your PC card should crash while performing the upgrade it could leave your modem next to useless.

The other thing to consider equipment wise is how to connect it to the phone system in your house. I'd recommend taking a good quality phone extension in the most direct route from your main socket to the modem, rather than daisy chaining it on to the end of the wire going all round the bedrooms, as this can effect the connection speed on a 56K modem. In any case you won't actually get 56K, probably around 40K to 52K depending on various factors such as the equipment on the other end, how far from an exchange your house is and the quality of your phone wiring. If in doubt about the your wiring, try plugging it directly into the main socket and seeing if this makes a difference. Most modems have a socket for connecting a phone in the back, I'd recommend getting a phone to plug into this as it's very useful to check that someone else isn't on the other extensions before the computer dials, or they won't be happy about

being interrupted by loud whistling noises!

Software

With the software side of things you have two choices: a collection of freeware programs or a commercial package. Which to go for depends on whether you feel more comfortable with the support you get from dedicated PD authors or a commercial company. The Internet is a constantly evolving place and you will hit problems and require upgrades whatever you are using.

There are many freeware packages to cover all aspects of the Internet, from the dialler used to make the connection, the obvious ones such as email/news readers and web browsers, to the less obvious one such as IRC chat programs and of course useful Internet utilities such as ping and traceroute. In each area the competing alternatives have advantages and disadvantages in features and ease of use and setting them all up together can be somewhat fraught. But full sets of PD apps have been grouped together in suites such as Acornet, and companies like Clares have been including them in Internet

bundles with a degree of support.

I, however, wanted the slightly more sure option of paying for an integrated package with the reassurance of support behind it. This seemed to be pretty difficult as with Acorn disappearing this left their package no longer supported. I already had this on CD and while Browse was a very good and stable browser the rest of the package was not that good. So the other alternative was the ANT Suite which is very well integrated with dialler, email/news reader and with the latest release, a web browser with Javascript capability. But at the time I bought it the producer of the ANT software had just transferred the product to Argonet and it looked like one of my main reasons for buying it -- the support -- had dried up. But after a couple of weeks Argonet had appointed two staff, who are providing an excellent level of support, and improvements to the suite are appearing once more.

Internet Service Provider

Before the end of the 80's and early 90's, there weren't many ways of getting on the Internet at home unless you could dial up a university or have



FreeUK's Home Page

an incredibly expensive leased line to UKC. But then, following the success of companies in the States, ISPs such as Demon appeared and enjoyed phenomenal success over here. They made their money by charging a small monthly fee such as £10+VAT and offered a local rate number to call. This was all shook up two years ago with the arrival of Dixons' free Freeserve ISP. It is not completely free, as you still pay local call rates, but they get a share of this from the phone company. There are now hundreds of free ISPs some independent in their own right, other

just re-badging other services, and some formerly paying ISPs have converted. There are now some ISPs purporting to be completely free, by giving you a free 0800 number to call, but there is usually a catch. The BT service is available only at weekends and they charge £11.25 a month. Others, such as Screaming.Net, require you switch all your billing away from BT to Localtel and people haven't been impressed with the service.

Nearly all ISPs offer similar features, such as email addresses, newsgroups

and free webspace, but there are variations. Some offer five email addresses which you have to set up in advance, others an unlimited number. The range of newsgroups carried may vary, with some of the more risqué being censored by the ISP. The amount of free webspace can range from 15MB to 25MB with some even offering unlimited space for non-commercial use. The reliability of the email/news/web server can vary enormous between ISPs and also over a period of time, so it makes for a very difficult decision.

The choice comes down to the level of service and support you think you'll need. Paid for services tend to be slightly more reliable as they have a known income and can plan for increased demand in advance and install extra equipment to cope, although even the best have been caught out from time to time with the rapid growth of the Internet. They also tend to offer free support, although as with all ISPs it is quite unusual to find any with much knowledge of Acorns, Argonet being one exception. But you'll find several have local newsgroups dedicated to Acorn use of the service. As for the

free services they can suffer from increased demand as they only start getting the extra revenue from the calls once they happen and so may be slow to react. The advantage is that there is nothing to stop you having several free ISPs and using whichever proves more reliable on the day. Support can be a problem though, if you can't email any queries you may be faced with a premium rate phone line charging anything from 50p to £1 or more per minute.

Trying out

I decided that while I might want the extra reliability of a Demon account in the long term, to start out I'd try some of the free services to see how it went. Already being on the Internet at work was an advantage because I was able to read of people's experiences with various ones on the Acorn newsgroups and go to the web sites of the ISPs to see what services they offered. I ended up trying out three: Freeserve, FreeUK and UKOnline.

We will hear what David Ruck thought about these in the concluding instalment of this two-part series in our next issue.

The Crossword solution (see page 43)

¹ P	U	² M	P	³ K	I	⁴ N		⁵ G	R	I	M	⁶ S	B	⁷ Y
A		A		Y		E		A				N		A
⁸ N	I	K	K	O		⁹ B	O	S	K		¹⁰ M	O	A	S
D		O		T		U		T		¹¹ O		O		H
O			¹² S	O	C	C	E	R		¹³ M	O	D	E	M
R		¹⁴ H				H		O		A				A
¹⁵ A	R	E	T	¹⁶ E		¹⁷ A	Y	E	R	S	R	O	C	K
		R		L		D		N		U		R		
¹⁹ C	L	A	R	I	O	N	E	T		²⁰ M	I	C	A	²¹ H
O				S		E		E				A		E
²² U	R	²³ I	A	H		²⁴ Z	I	R	C	²⁵ O	N			L
R		N		A		Z		I		M		²⁶ N		S
²⁷ A	D	A	M		²⁸ B	A	H	T		²⁹ A	L	E	U	T
N		P				R		I		H		O		O
³⁰ T	E	T	A	N	U	S		³¹ S	H	A	N	N	O	N

© Rex Puzzles

Lost in a Whirl

In last issue's *In a Whirl* puzzle, the grey outlines to the squares which revealed the mystery word became lost in the printing. Sorry about that but it should have become apparent in the solution that the word appeared in the horizontal row at the centre of the grid.

Club contacts

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Disc	products@amclub.org.uk

Mail: FREEPOST 'The ARM Club'

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

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Europe £16 and rest of the world £19

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Email: info@armclub.org.uk Tel: 07010 709849 (Flexitel)