

The best-selling Acorn magazine in the world

ACORN USER

Essential for all users of 32-bit RISC OS computers

Review Special

Utilities and applications you can use to improve your machine

- Power DTP applied
- Acorn in Australia
- All the latest on Acorn's world takeover bid
- plus all your regular favourites - *INFO, Q&A, Run the Risc and your letters

APRIL 1996
ACORN USER Cover Disc

Swarm

Play this full version of this fast action arcade game



FLOAT

Discover how to mix accents from French to Icelandic

- Read Acorn's own press releases about the Apple-Acorn joint venture
- Latest addition to the C application
- Plus the *INFO programs, the Pocket book extras and the acronym glossary

CHECKED ● VIRUS CHECKED ● VIRUS CHECKED ● VIRUS CHECKED ● VIRUS CHE

April 1996 Issue 167 £3.25



0 4 >

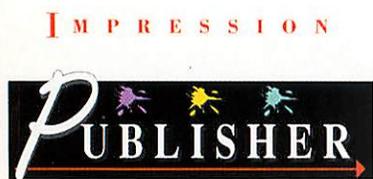
9 770263 745086



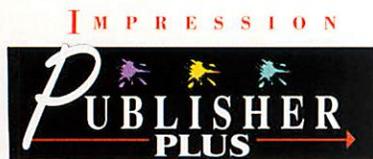
£99 + VAT (£116.32 incl.)
 Site Licence
 £440 + VAT (£517 incl.)



£79.00 + VAT (£92.82 incl.)
 Site Licence
 £350 + VAT (£411.25 incl.)



£129 + VAT (£151.57 incl.)
 Site Licence
 £440 + VAT (517 incl.)



£229 + VAT (£269.07 incl.)
 Impression Publisher Plus
 for Publisher owners
 £99 + VAT (£116.32 incl.)

Some of the best Acorn Products have just become better value

ArtWorks and Impression are currently two of the most popular packages for the Acorn platform.

Now we have made some changes that we think will make them even more popular in 1996; firstly we have cut the price of all variations of the software and secondly we have produced new no-dongle versions of Impression Publisher and ArtWorks.

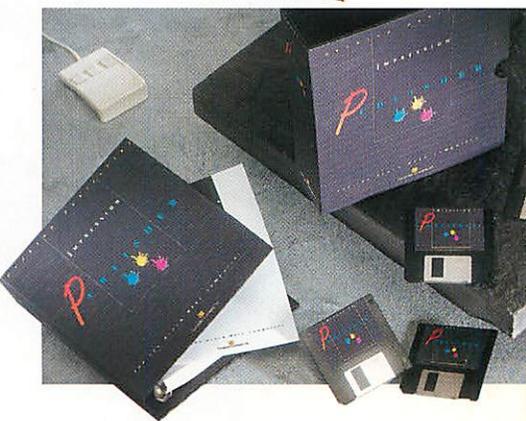
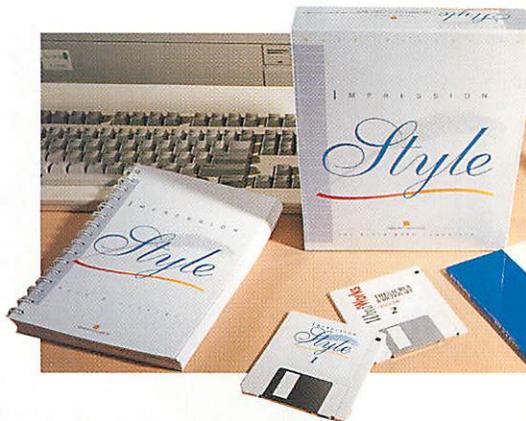
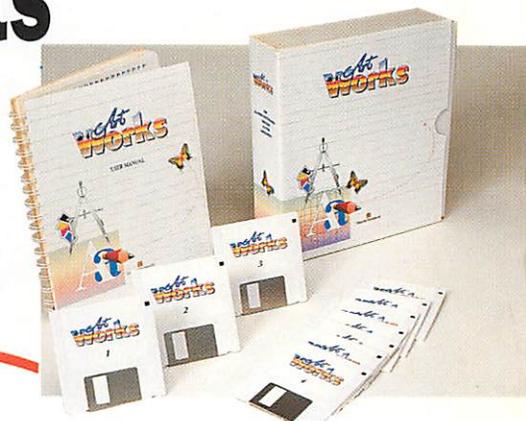
If you need a word processor, DTP or drawing package but haven't thought of using our products before, or you were concerned about the price or the dongle, then please just ask for a copy of our brochures which give full details on all these packages. Call/fax/email our sales staff at the numbers below.

To exchange your current version for the new no-dongle versions of Impression Publisher or ArtWorks simply return your dongle with a note of your serial number and payment of £12.76 + VAT (£15.00 incl.).



Computer Concepts Ltd

Gaddesden Place
 Hemel Hempstead, Herts HP2 6EX
 Tel 01442 351000 • Fax 01442 351010
 Email info@cconcepts.co.uk
 Web <http://www.cconcepts.co.uk>



CONTENTS

Editor's letter

No sooner were my words in last month's letter printed than all the ground rules were changed again. On the cover disc you can read Acorn's own press releases about their joint venture with Apple.

This was heralded in some quarters as Acorn abandoning RISC OS in favour of Mac OS, curiously in the same way that the announcement about Acorn selling PCs gave rise to claims that Acorn were embracing DOS to the exclusion of all others.

Neither is true, of course. Acorn Education now becomes a total one-stop shop and has vowed to support RISC OS, while Peter Bondar (head of ART, now Acorn Risc Technology) wonders why people are so fast to assume that RISC OS is dead — he wants the power that RISC OS and half a dozen StrongARM chips will give him.

And so do I.

Steve Turnbull

Managing Editor Pam Turnbull

Editor Steve Turnbull

Production Editor Alan McLachlan

Art Editor Alan Capper

Editorial Assistant Karen Peach

Contributing Editors

Ian Burley (News) Steve Mumford (Games)

Jack Kreindler (Graphics) David Dade (Comms)

Paul Wheatley (Public Domain)

Geoff Preston (Education)

Mike Tomkinson (Business)

Mark Taylor (Portables)

Advertisement Manager Emma Barr

Assistant Ad Manager Lisa-Jo Oliver

Ad Production Helen Weaver

Ad Typesetting Eddie Burke

Marketing Manager Claire Mawdsley

Production Manager Sandra Childs

Commercial Director Denise Wright

Circulation Director David Wren

Distribution COMAG (01895) 444055

Subscriptions & Back Issues

Database Direct 0151-357 1275

Email: database@dbdirect.demon.co.uk

Managing Director Ian Bloomfield

Cover Alan Capper

Member of the Audit Bureau of Circulation
Acorn User is an independent publication and Acorn is not responsible for any of the articles in this issue or for any of the opinions expressed.



Published by IDG Media Ltd, Media House, Adlington Park, Macclesfield SK10 4NP
e-mail aueditor@idg.co.uk
<http://www.idg.co.uk/acornuser/>
Tel: (01625) 878888 Fax: (01625) 850652
Printed by Duncan Web Offset, Maidstone

13 issue subscription rate: £37.99 (UK),
£53.99 (EU), £68.99 (World)

©1995 IDG Media Ltd.

No material may be reproduced in whole or in part without written permission. While every care is taken, the publishers cannot be held legally responsible for any errors in articles, listings or advertisements

REGULARS

9 News
What's new in the Acorn world

17 Graphics
More about Photodesk 2

18 Comms
BBS & Web sites for Acorn users



20 Public Domain
Two pages of PD news

23 Portables
Pocket Lab, MediaPad and more

24 Business
Mike Tomkinson takes over



26 Cover disc
Swarm plus a glossary of computer abbreviations

57 Game Show
News, reviews and adventure games

72 Free ads
Pick up a bargain

85 Back issues
Hurry while stocks last!



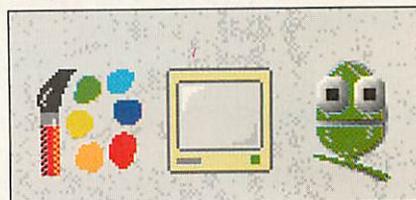
86 Subscribers' page
Have AU delivered to your door

88 Letters
Your chance to be heard

90 The Regan Files
Aaron Timbrell of iSV

HANDS ON

73 *INFO
Doodles, tunes, games & more



78 Run the RISC
Inspiration from Bolton market

81 C Tutorial
Window creation and filling

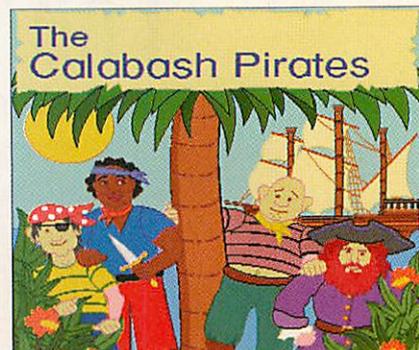
Questions & Answers

82 Hints and tips from Mike Cook

EDUCATION

65 Editorial
Primary Gold Award for CSH

67 A pirate's life for me
Calabash pirates in the classroom



68 Mini Motivators
Using the Pocket book in school

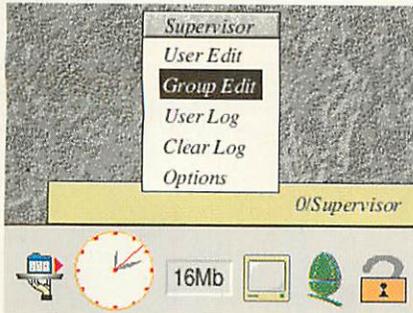


70 Alternative authoring
Alternative programs for multimedia authoring

REVIEWS

43 PadLock

One machine, many users



44 Custodian

A different sort of backup

45 WimpWorks

Easy Wimp programming

46 Money Manager

Personal finances for non-accountants

49 MenuBar

Faster application access

50 Buttons

Making it easy for the youngsters



FEATURES

29 The wizards of Oz

A visit to Acorn Australia



33 In foreign parts

How to get accents right

40 Printer survey

Tell us all about your printer

53 Making the jigsaw advert

How the Atomwide ad was created

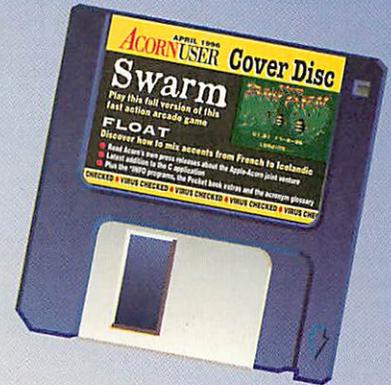
62 I wrote that...

Jason Tribbeck of VTi

Wakefield Acorn Spring Show
Sunday 19 May 1996
See page 41 for all the details

26

Swarm, the superb new game from Matthew Bloch, a glossary of computer abbreviations, Acorns press releases about their joint venture with Apple, *INFO programs and lots more

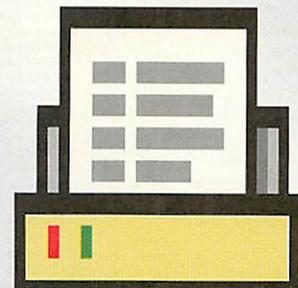


29

Mark Moxon visits Acorn Australia: read the history, meet the people and see the differences at Acorn down-under

40

Complete our printers survey and tell us all about the printers you use, your experiences, successes, failures — plus anything else you think we ought to know



Next month in Acorn User

- David Dade explains how Bulletin Boards work and reviews BBS packages that you can use.
- Alex Singleton does a round up of available clip-art and software that's designed to make it accessible.
- Bruce Goatly checks out the latest genealogy program from Minerva, Ancestry 2.
- Plus all the regular features

**NEXT
ISSUE**
ON SALE
18 APRIL

PrimeSolver Full version, KS1-4 £125
 ProCAD, KS4 £125
 Prophet 2 £143
 PublishArt Release 2, Artworks format £143
 PublishArt Release 2, Draw format £143
 Puddle, KS1 £19
 Quest for Gold £19
QuickKey £10
 Rainbow, KS1,2 £30
 Recordz £30
 RemoteFS Parallel Port £93
 Report Writer, KS1-4 £48
 Resultz £75

Revelation ImagePro 24 bit

limited offer, KS2-4 £39
Revolver £12
 Rhapsody 2 £48
 Rhapsody 3 £74
 Rhythm-Bed £38

Rick Dangerous

Ridiculous Rhymes, age 7+ £13
 RISC OS 3 First Steps £39
 RISC OS 3 Programmer's Reference Manual vol 1-4 £105
 RISC OS 3.1 Documentation £28

Rosie and Jim

Duck loses his Quack, age 3-6 £10
 Roll VT £21
 Rosie and Jim: Jim gets the Sneezes, age 3-6 £20
 Round the World Yacht Race, age 9+ £16
 RTF and WordPerfect Loaders and Savers £92
 S-Base 2 Developer £28
 S-Base 2 Personal £47
 Sally and Wally £20
 Saloon Cars Deluxe (not Risc PC) £22
 Saloon Cars Deluxe Extra Courses £15
 Saloon Cars Deluxe for Risc PC £22
 Schema 2 £95
 Science £44
 Score Draw £21
 Scrabble £44
 ScreenTurtle, KS1-3 £34
 Sea Rescue, age 7-9 £25
 Search and Rescue, age 9+ £26
 Seashore Guide £16
 Seelinks - Ourselves, KS1,2 £27
 Serenade £75
 Shakespeare Show £39
 ShapeFX £9
 Sibelius 6 £154
 Sibelius 7 £829
 Sim City £22
 Sim City 2000 for A5000 £30
 Sim City 2000 for Risc PC £28
 Simon the Sorcerer FD £30
 Sleuth 2 £93
 smArt, age 7+ £15
 smArt Faces: English £15
 smArt Fantasy £15
 smArt Fashion £15
 smArt Homes: English £15
 smArtiller, age 7+ £24
 Smudge the Scientist, age 4+ £38
 Smudge the Spaniel, age 4+ £19
 Somerset Talking Computer Project Learning Materials £30
 Space City, age 7-9 £25
 SparkFS £10
 Special £24
 Speelch 2 £24

Dabs Guides only £7 or **FREE with one of these**

ArtWorks Made Easy
 Budget DTP
 C Guide
 Graphics on the ARM Machines
 Impression
 Risc OS 3.1 First Steps
 Archimedes
 Operating System

ArtWorks
 Big Picture C++
 Easy C • Easy C++
 Impression Style
 Impression
 Publisher (Plus)
 Pendown
 Photodesk
 ProArtisan 2 or 24
 Textease
 Risc OS 3.1 upgrades

Speelch 2 + German £29
 Speedball II £18
 Spelling week-by-week, KS2 £24
 SpeX - Full version £38
 SpeX - Home version £33
Spobleoid Fantasy £28
 Star Fighter 3000 £23
 Starspell Plus £19
 StartWrite £55

Stereoworld

Stig of the Dump, KS2,3 £24
 Studio24 + Studio24Pro £124
 Stunt Racer 2000 (not Risc PC) £24
 Stunt Racer 2000 for Risc PC £24
 Stunt Racer 2000 Extra Tracks £16
 Swiv (not Risc PC) £29
 TableMate 3 £29
 TABS £95
 Talking Clocks, KS1,2 £32
 Talking PenDown, KS1-3 £32
 Talking Rhymes Pack 1, KS1 £32
 Talking Textease £32
 TechWriter £32
 TechWriter Professional £91
 Teletext-Turbo £168
 Terminate Basic £49
 Terminate Internet £79

Textease Version 2

Time Detectives ... The Victorians, KS2 £42
 Time Machine £19
 Time Traveller - Britain Since 1930, KS2 £27
 Time Traveller - The Victorians, KS2 £27
 Time Traveller - Tudors & Stuarts, KS2 £27
 TinyDrawTinyLogo, KS1,2 £25
 Topographer £59
 Touch Type £38
 Trace £9
 Transport £25
 Tracka £17
 TurboDriver Canon £39
 TurboDriver Epson Stylus 800 £39
 TurboDriver HP £39
 Twain Canon IX incl Scan-Light Professional £116
 Twain Epson G18000, 6500 £116
 Twain HP Scanjet II, IIC, IICx £116
TWO (Task and Window Organiser) £10
 TypeStudio £28

Vector, age 9+ £58
 VersaTile £40
 Virtual Golf £22
 Vox Box £40
 Voyage of Discovery, age 9-13 £31
 Wardrobe, KS1 £17
 Watch - Magic Grandad 90 Years Ago £26
 What Do You Know?, age 4+ £19
 WinLogo, KS1-4 £79
 Wolfenstein 3D £23
 World Geography Maps £16
 World Wildlife £16
 WorraCad £65
 Worst Witch, age 7-10 £24
 Zig Zag - Vikings £33
 Zoo, KS1 £17

ICS Hard Disc Kits

The best IDE filing system
 • Password protection • Disc partitioning •
 • Not limited to 512 Kb •
 Please specify OS 2 or OS 3 for all kits and interfaces
 All ICS CD products require Risc OS 3.1 or later

IDE Internal Hard Disc Kit for A3000 Series:
 - ADD £14 TO INCLUDE OUR CD FILING SYSTEM -
 - OR £5 IF YOU REQUIRE A USER PORT -
 IDE HD 60 Mb Kit for A3000 Series £125
 IDE HD 80 Mb Kit for A3000 Series £149
 IDE HD 240 Mb Kit for A3000 Series £209
 Internal Interface only £75
 Smaller sizes are now rare so please check availability.
 IDE Internal Hard Disc Kit for Archimedes range:
 IDE HD 330 Mb for Archimedes £215
 IDE HD 540 Mb for Archimedes £245
 IDE HD 1000 Mb for Archimedes £315
 Internal Interface only £60
 Hard Disc Cradle Kit for Archimedes £15
 Hard Disc Fitting Kit for A3000 £7
 Hard Disc Fitting Kit for A3020 £7
 Hard Disc Form Factor Converter 2 1/2" to 3 1/2" £7

A3000 CD Bargains

Do you already have an ICS IDE interface?
 Would you like a

4-speed CD for £206?

(Prices may be even lower by the time you read this)
 IDE CD 4-speed Upgrade for A3000 Series with ICS IDE £206
 IDE CD 6-speed Upgrade for A3000 Series with ICS IDE £252
 - You need Risc OS 3.1 and a free external IDE connector -
 Check the version number of your IDEFS module:
 press F12 and type *Help IDEFS
 If it is 3.14 or more you just pay the above prices.
 If it 2.5 or more but less than 3.14
 your interface needs a modification costing £19.
 If it less than 2.5 please call for advice.

ICS CD only Kits

- ALL ICS CD PRODUCTS REQUIRE RISC OS 3.1 -
 IDE CD 4-speed Kit for A3000 Series £245
 IDE CD 4-speed Kit for Archimedes £233
 IDE CD 4-speed Kit for Risc PC £147
 IDE CD 4-speed Kit + HD FS for A3000 Series £256
 IDE CD 4-speed Kit + HD FS for Risc PC £158
 IDE CD 6-speed Kit for A3000 Series £291
 IDE CD 6-speed Kit for Archimedes £279
 IDE CD 6-speed Kit for Risc PC £194
 IDE CD 6-speed Kit + HD FS for A3000 Series £302
 IDE CD 6-speed Kit + HD FS for Risc PC £205
 IDE CD Interface for A3000 Series £71
 IDE CD Interface for Archimedes £58
 IDE CD Interface for Risc PC £59
 IDE CD + HD Interface for Risc PC £66

ICS HD + CD Kits

- ALL ICS CD PRODUCTS REQUIRE RISC OS 3.1 -
 IDE HD 60 Mb + CD 4-speed Kit for A3000 Series £319
 IDE HD 60 Mb + CD 6-speed Kit for A3000 Series £367
 IDE HD 80 Mb + CD 4-speed Kit for A3000 Series £359
 IDE HD 80 Mb + CD 6-speed Kit for A3000 Series £391
 IDE HD 240 Mb + CD 4-speed Kit for A3000 Series £391
 IDE HD 240 Mb + CD 6-speed Kit for A3000 Series £439

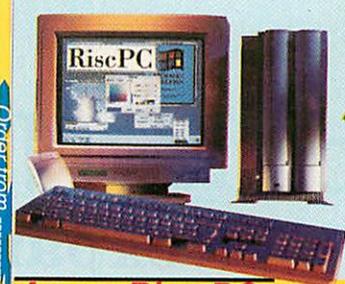
Hard Discs & CDs

IDE CD Drive 4-speed £110
 IDE CD Drive 6-speed £160
 IDE 2 1/2" Hard Disc, 60 Mb £65
 IDE 2 1/2" Hard Disc, 240 Mb £149
 IDE 3 1/2" Hard Disc, 330 Mb £165
 IDE 3 1/2" Hard Disc, 540 Mb £195
 IDE 3 1/2" Hard Disc, 1000 Mb £265
 Second Hard Disc Fitting Kit for A5000 £15
 Second Hard Disc Y Power Lead £7

Removable Discs

IDE Removable Hard Disc Kit for A5000, 270 Mb £359
 IDE 3 1/2" Removable Hard Disc Cartridge, 105 Mb £52
 IDE 3 1/2" Removable Hard Disc Cartridge, 270 Mb £52
 Removable Hard Disc Fitting Kit for A5000 £55

POSTAGE IS FREE FOR PREPAID SALES IN THE UK
 We are grateful to ISV Products for enhancements to the Frutiger font used in this advertisement



Acorn Risc PC

Risc PC700 10M HD850 14" Monitor Acorn £1689
 Risc PC700 10M HD850 17" Monitor Acorn £2015
 Risc PC700 10M HD850CD 14" Monitor Acorn £1799
 Risc PC700 10M HD850CD 17" Monitor Acorn £2125
 Risc PC700 5M HD425 14" Monitor Acorn £1359
 Risc PC700 5M HD425CD 14" Monitor Acorn £1469
 Risc PC700 X System Acorn £2265

Cx 5x86-100 Card for Risc PC £495

Case Mid Upgrade for Risc PC 600 2M and 5M Acorn £105
 Ergo Keyboard for Risc PC Castle £38
 Hard Disc Fitting Kit for Risc PC 5 1/4" bay ICS £20
 IDE Removable Hard Disc Kit for Risc PC ICS £60
 Power-tec SCSI II Card for Risc PC, 270 Mb £359
 Removable Hard Disc Fitting Kit for Risc PC 5 1/4" bay Abystems £173
 Risc PC 2 Mb VRAM ICS £20
 Risc PC Sound Card Acorn £195
 Risc PC x86 Card DX2-66 Acorn £248
 Risc PC x86 Card DX4-100 Acorn £298
 SIMM 4 Mb 32 bit £79
 SIMM 8 Mb 32 bit (FEL) IFEL £155
 SIMM 16 Mb 32 bit £295

Acorn Portables

Pocket Book II 1MB Acorn £284
 Pocket Book II 256K Acorn £203
 A-Link for Pocket Book Acorn £44
 Flash Disc 512K for Pocket Book Acorn £79
 Flash Disc 1 Mb for Pocket Book Acorn £102
 Mains Adaptor for Pocket Book Acorn £16
 Parallel Link for Pocket Book Acorn £28

Other Computers

A7000 4M HD425CD Acorn £969

Other hardware

A305/310/440 RISC OS 3 Carrier Board IFEL £19
 Backplane, 4-slot 4-layer with fan IFEL £55
 ColorMobile Direct Scanner for Windows Primax £149
 ColorMobile Office Scanner for Windows Primax £199
 ColourCard Gold CC £99
 DMI 30 Audio £91
 DMI 50 - 5 Audio £164
 Dangle Dangle CC £6
 Eagle M2 CC £315
 Ergo Keyboard Castle £98
 Fan Kit for A300 / A400 Series ICS £15
 GamesPad Dual GamesW £30
 GamesPad Pro Dual GamesW £34
 Micro Mouse Clares £21
 Midi Max CC £68
 Movie Magic CC £245
 PD Cartridge, 650 Mb Rewritable Panasonic £38
 Power Pad (Dual) Eclipse £25
 Power Switch GamesW £17
 PowerWAVE 50XG Audio £249
 Printer Port Sampler VTI £49
 RISC OS 3.1 10 Set Rom Pack Acorn £249
 RISC OS 3.1 3 Set Rom Pack Acorn £75
 RISC OS 3.1 Software Upgrade with documentation Acorn £67
 RISC OS 3.1 Software Upgrade without documentation Acorn £39
 ScanLight 256 CC £128
 ScanLight 256 for A3000/3010/3020/A4000 CC £138
 ScanLight Video 256 A310/400/5000/Risc PC CC £188
 ScanLight Video 256 A3000/A4000 CC £188
 Sound Force 1 Multimedia PC Speaker System QuickShot £34
 Tele-Card XOB £153
 Tele-Card + Teletext-Turbo XOB £298
 TV Tuner with Teletext CC £157
 User Port / MIDI Upgrade for A3000 Acorn £51
 Vision 24 A3000/3010/3020/4000 internal HCCS £67
 Vision 24 A5000/400/300/Risc PC HCCS £67
 Vision 24 508 line A3000/3010/3020/4000 internal HCCS £91
 Vision 24 508 line A5000/400/300/Risc PC HCCS £91
 Whisper Fan Quieter (for A3000/400 Series only) ICS £15
 Wizzo5 for A5000 ICS £39

ICS
 0151-625-1006

Memory

A305/310/440 1 - 4 Mb IFEL £118
 A3000 1 - 2 Mb, Upgradable IFEL £52
 A3000 1 - 4 Mb IFEL £99
 A3010 1 - 2 Mb IFEL £38
 A3010 1 - 4 Mb IFEL £115
 A3010 2 - 4 Mb IFEL £83
 A3020 / A4000 2 - 4 Mb IFEL £74
 A5000 2 - 4 Mb IFEL £75

Printers

BJ-30 Bubble Jet Printer Canon £159
 BJC-70 Colour Bubble Jet Printer (Black/White) Canon £245
 BJC-210 Colour Bubble Jet Printer Canon £304
 BJC-600E Colour Bubble Jet Printer Canon £359
 BJC-600 Ink Cartridge, Black High Capacity Canon £10
 BJC-600 Ink Cartridge, Cyan Canon £12
 BJC-600 Ink Cartridge, Magenta Canon £10
 BJC-600 Ink Cartridge, Yellow Canon £10
 BJC-4100 Colour Bubble Jet Printer Canon £40
 BJC-4000 Ink Cartridge, Colour Canon £60
 BJC-4000 Ink Cartridge, Black Canon £26
 BJC-4000 Ink Tank, Black Canon £195
 BJC-4000 Ink Tank, Colour Canon £15
 DeskJet 340 HP £19
 DeskJet 600 HP £219
 DeskJet 660C HP £275
 DeskJet 850C HP £375
 EP-L Toner Cartridge for LBP-4 Canon £59
 EP-S II Toner Cartridge for LBP-8 Canon £69

Stylus Colour II Epson £285

20 months to pay
FREE FINANCE!
 Call now for details

HOW TO ORDER

Carriage is free within mainland UK if you pay on ordering.
 Cheques should be made payable to Ian Copestake Limited.
 You may also pay by credit card, debit card or Switch. We normally make no charge for this, and take no payment until goods are despatched. We need your address as known to the card issuer, the card number and expiry date, and the valid from date and issue number if any.
 If you leave an order on your answering machine please include your telephone number, your card number and its expiry date (and issue number if any), and your calculation of the total payment due.
 Official orders are welcome from UK educational and government institutions (invoices are due for payment within 14 days and are subject to carriage and late payment charges).
 VAT is not included. Zero-rated items are marked V0. UK customers please add 17 1/2% to all other prices. EC customers outside the UK please do the same unless you are VAT-registered, in which case quote your international VAT number. Ours is GB 595 7258 84.
 Overseas carriage: if you are paying by credit card we will add airmail and insurance at cost. Otherwise please add £6 (Europe) or at least £12 (elsewhere) for each software item and send a pounds sterling bank draft payable at a London clearing bank, or Eurocheques for not more than £100 each.

If you don't see it here...
WE CAN SUPPLY ALMOST ANY PRODUCT FOR THE ACORN PLATFORM
 ... just ask

Authorised Acorn Dealer and Developer
 Cheques payable to Ian Copestake Limited please
Dept U27, 1 Kington road West Kirby, WIRRAL Merseyside, England, L48 5ET
 Tel: 0151-625 1006
 Fax: 0151-625 1007

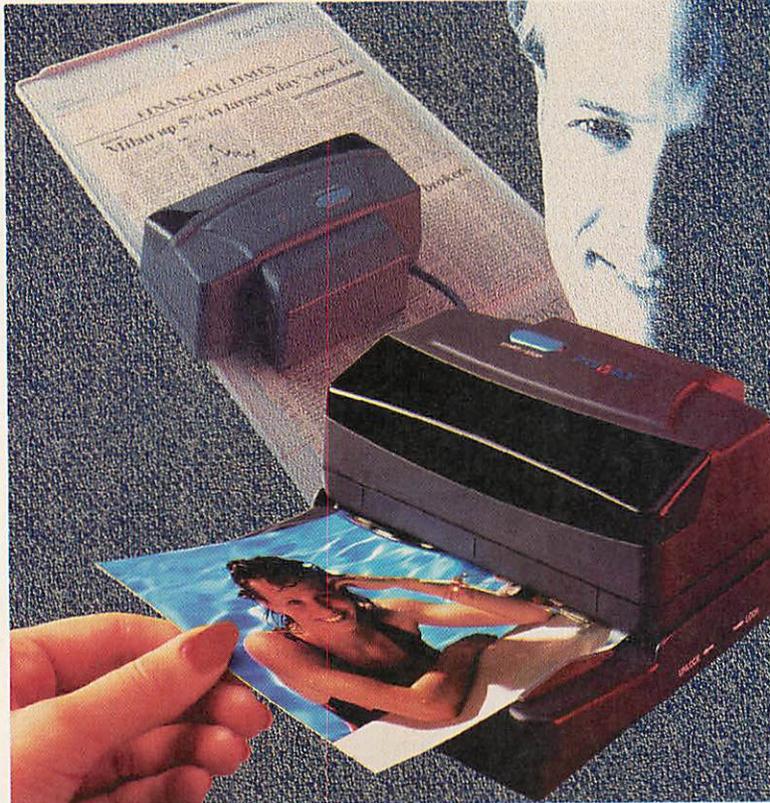
Order from: ICS - Ian Copestake Limited, Dept U27, 1 Kington Road, West Kirby, Wirral, Merseyside, England, L48 5ET. Tel: 0151-625 1006. Fax: 0151-625 1007.

Order from: ICS - Ian Copestake Limited, Dept U27, 1 Kington Road, West Kirby, Wirral, Merseyside, England, L48 5ET. Tel: 0151-625 1006. Fax: 0151-625 1007.

Look. No Hands!

...or expansion cards
...or switch boxes

New!



A 24 bit Colour Scanner for only £239.70!

(Price of the complete package including scanner, software, power supply, postage and VAT)

Presenting the ColourMobile scanner. Another scanning first from Irlam Instruments and a very good reason not to buy a black & white hand scanner. ColourMobile is a motorised scanner that scans flat images automatically. It works directly from bi-directional parallel ports so you don't need any expansion cards*. And it provides a parallel port for printers and dongles. And if you are really short on space there is also an optional sheet feeder (as shown). You can even detach the motor and use it as a hand scanner for books etc. Novel scanning software is supplied that allows images to be dragged and dropped into any application.

ColourMobile features

- 24 bit scan head providing 16.7 million colours and true 256 grey levels.
- Resolutions from 100 to 400 dots per inch (dpi). 400 dpi interpolated.
- Software compatible with any RISC OS compliant application.
- Compatible with printers and dongles.
- Optional sheet feeder and track pad.
- Scan width 104.6mm (4.12").



For the Complete Picture...

Irlam Instruments Ltd, Brunel Institute for Bioengineering, Brunel University, Uxbridge, Middlesex, UB8 3PH. Tel/Fax 01895 811401. Email: sales@irlam.co.uk

Please note: **ColourMobile** works on A4, A3010, A3020, A4000, A5000 & RISC PC machines (requires bi-directional parallel port). You must have RISC OS 3.1 or later, a hard disc and 2Mb RAM minimum. All hardware products come with full 1 years guarantee. E & OE.





Acorn and Apple join forces

To some, the unthinkable has happened — Acorn is to collaborate with Apple in the education market. To others, Acorn has made a wise and brave move to ally with Apple. By early April, the product of the alliance — a new Cambridge-based company aimed at developing information technology solutions for the UK education market — will begin operations.

The as-yet unnamed company, jointly owned by Acorn and Apple, will be headed by Brendan O'Sullivan while Acorn's managing director, David Lee, will become chairman of the board.

Some will suggest Acorn and Apple were forced in to a marriage of convenience — both are performing poorly in an education market which has seen spectacular successes for both in the past. Both face a common enemy in the form of the IBM-compatible PC.

Although Acorn will continue to sell and develop its proprietary ARM-based RISC OS computers, the long term future for Acorn now looks like being down the PowerPC path already being trodden by Apple. This dovetails neatly with Acorn's publicly stated interest in PowerPC hardware and its relationship with IBM, which is one of the three main PowerPC protagonists, the others being Apple and Motorola.

RM, Acorn's long-time rival in the education field, issued a remarkable press release in response to the Acorn/Apple news which suggested that the end of RISC OS had been signalled and RM's chief executive, Mike Fischer, was even quoted as saying it was a sad event. With hundreds of thousands of RISC OS machines already in use up and down the land, RISC OS is not just going to disappear overnight. Acorn is not going to stop selling RISC OS computers overnight, either. Acorn Risc PCs and A7000s remain formidable competitors to RM and any other PC clones.

Acorn's message is that the RISC OS market for third party vendors and developers is still there and will last indefinitely. After all, Acorn's overall market is calculated to be worth a couple of hundred million overall. There is no need to panic. In fact there are some exciting developments to come, with the introduction of ARM800 and StrongARM processors later this year.

There is also a possibility that ARM power and RISC OS could live on in the form of a plug-in co-processor for PowerPC machines in the future. No doubt, Simtec or Aleph One or such-like will develop a PowerPC co-processor for the Risc PC too!

RISC OS also remains at the heart of developments within ART and Online Media for Oracle's new Network Computer and Online Media set top boxes.

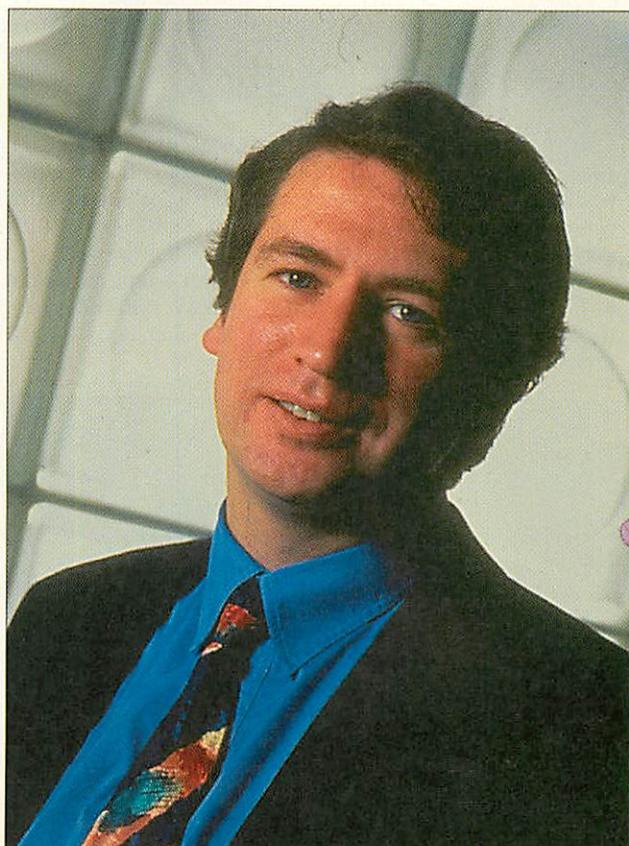
Far from RM's hopes of an overnight death of RISC OS, Acorn and Apple emphasise that the new company will actively sell and support the Risc PC and A7000 alongside other established Acorn products like the Pocket Book, SchoolServer products, etc. and they will remain Acorn branded. At the same time, Apple Power Macintosh, Performa, PowerBook, Newton and other Apple-branded products will be marketed and supported alongside Acorn's products by the new company.

The long term goal of the company is to adopt the latest PowerPC hardware platform. Part of this specification is a future version of Apple's Mac OS. Acorn and Apple will actively work to develop technologies which will see closer inter-operability between Acorn and Apple technologies.

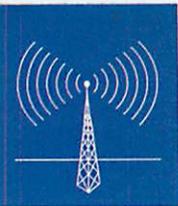
Brendan O'Sullivan commented: "Acorn and Apple share a similar vision and commitment to the education market. Acorn and Apple's heritage in education means that our education customers, software developers and reseller partners can expect increased investment in sales,



Brendan O'Sullivan



Nigel Turner



marketing and solutions from the new joint venture company.

"The political consensus that is beginning to form around the need for integrating technology in learning means that the new company is ideally placed to advise, influence and deliver on government initiatives in UK education."



Acorn's managing director, David Lee, commented: "This joint venture creates a major new force which will take educational IT in the UK into a new generation of development. The new company will provide a planned migration path, enabling users to make a smooth and logical transition from current to future technologies."

"Consequently, schools may continue to purchase Acorn or Apple systems as best suits them and will be able to incorporate new generation systems alongside their existing IT provision, confident in the knowledge that they are making a sound investment in the future of educational IT."

To some extent, Acorn and Apple users have seen it all before. The change from 8-bit BBC Micros to the new 32-bit Archimedes saw old and new computers working side by side for a long time. Apple users are still undergoing a transition from 68000-based Macs to the newer PowerPC-based machines introduced two years ago.

Both will be presented with new PowerPC platforms sooner or later and while Apple users will have an easier time in adopting the new platform, it won't be a simple exercise. In the meantime, Acorn and Apple want to help users and developers to be aware of what's to come and, where necessary, be prepared for eventualities.

The new company will replace existing marketing structures

within the prospective donor companies. Acorn Education agencies and Apple Computer UK education resellers will be invited to apply for agencies representing the new company. Both companies suggest their channel structures are surprisingly complementary.

Acorn developers will be encouraged to port their wares to Mac OS. At the same time, RISC OS customers will continue to provide demand for native products. This may seem one-sided — Mac developers aren't going to be actively encouraged to port their products to RISC OS — but it is logical as the future Power PC platform will be based around a derivative of the current Mac OS.

That we won't see RISC OS endowed with any major enhancements from now on is half true. The fact that Sun's Java Internet language is currently being ported to RISC OS for the Oracle project demonstrates that RISC OS will continue to benefit from enhancements.

New versions of RISC OS will also be required when the StrongARM processor family comes on-line. However, it is fair to say that the Acorn/Apple deal probably means there will be no further radical developments of core RISC OS workings, but if you examine the history of the development of RISC OS, this was practically an inevitability at this stage.

Whether or not Acorn and Apple's joint education company succeeds remains to be proven. That the two company's are determined to make a go of it, there is little doubt — Acorn's recent Learning Without Limits and MediaRange initiatives are proof of this. The new PowerPC platform will eventually furnish the new enterprise with a serious PC competitor, but in the meantime, it will be fascinating to see how fruit and the nut work together.



The Roller joystick

SEMERC have had much success with their Roller trackball, but not everyone gets on with tracker balls.

For those who don't, there is an answer — SEMERC's new Roller Joystick. Fitted with its optional soft knob, the joystick is easier to use if you

have muscular difficulties. Unfortunately, the precision mechanism of the joystick means it isn't cheap at £199 + VAT.

Soft ball knobs are priced £15 + VAT. SEMERC, tel: 0161 627 4469, fax: 0161 627 2381.



Olivetti relinquishes majority control of Acorn



Olivetti has reduced its share holding in Acorn to just 45.9 per cent. At the end of February Olivetti sold 10 per cent of its Acorn shares to Chancellor Capital Management Inc. in the US. Apparently there is considerable interest in Internet surfing opportunities, in the US, hence the deal. This left Olivetti with a 48.4 share in Acorn.

Shortly afterwards a group of UK investors negotiated a further acquisition of 2.15 million shares from Olivetti, reducing Olivetti's share in Acorn to 45.0 per cent. Hermann Hauser, ex co-founder of Acorn, is reported to have sold 1.6 million shares as well.

Marco de Benedetti, head of Olivetti's Telemedia division, of

which Acorn is a member, commented: "In recent months Acorn has been forging new and interesting alliances with global technology companies such as Oracle and Apple and these developments have aroused interest in Acorn from institutional investors both in the UK and internationally."

"In this context, I believe it is appropriate and in the interests of Olivetti to reduce its share holding to below fifty per cent while remaining a committed long-term shareholder and supporter of the company." Acorn has also welcomed the news, backing up De Benedetti's comments that Acorn's increased visibility could lead to more alliances.

NETWORKING Acorn Computers

with

**The Network
Specialists**

BEEBUG

Solutions for Primary and Secondary Schools

Never before has networking been so relevant to schools. As well as being cheaper, we now have networking solutions ranging from Access which needs no management at all, right through to full server-client systems suitable for a large campus.



Networks are Fast

Using Ethernet interfaces you will find speed is not a limiting factor. A whole class can load their own programs and be working within a couple of minutes.

Expandable

a Wide Range of Solutions

If installed and planned properly, a network can grow as your requirements change. Whether you want to link just a few machines or the entire school, Ethernet is ideal. We can now offer a wide range of solutions depending upon your exact requirements, including links to non-Acorn file servers and communications onto the Internet.

Cost Effective

One of the joys of a network is that it is not expensive and can save you money. In its simplest form, all you need is a network card in each machine and a cable to link them.

You will also be able to share expensive resources such as printers, scanners and CD drives giving you fast access to multimedia. This is much more efficient and cheaper than individual hard drives, printers and CD drives.

Free Pamphlet

We have produced a pamphlet for those needing more information. This is available free to schools. For your free copy of 'An Introduction To Networking Acorn Computers' just return the coupon below.

Easy to Manage

Rather than having numerous computers each with their own hard drive, a network gives you just one system to manage. Every computer on the network will then start up in exactly the same way. New programs need only to be installed onto the file server and cannot be damaged by other users.

Advice and Support

Beebug are the specialists in networking Acorn computers, having installed countless school networks throughout the country. We can advise on the best way to set up a network, supply machines with network cards fitted, install cabling, configure your system and provide staff training. We also provide free telephone support to all of our installations.

Link To Your PC Network

We can now offer a number of solutions to link your Acorn systems to PCs. Using Omni-Client we can access Windows NT file servers, so that Acorn and PC data can exist on the same file server. With the PC card in a Risc PC we can link into a Novell Netware network or Windows 3.11, NT or 95 systems. All of this is possible and can co-exist with Acorn networks, even on the same cable. Beebug have trained and experienced staff to offer installation and support.

Network Recovery Service

If you have a network installed that is not performing properly we offer a consultancy service to get it going for you. Ethernet networks should be fast and reliable, and if yours is not, we can probably offer help, advice and training to maximise its performance.

Send For More Information Today Please send me the following information:

- Networking Pamphlet
- Information on Leasing
- Quotation or Information on (specify).....

Name.....

Establishment.....

Address.....

Tel No..... Fax No.....

Beebug Ltd, 117 Hatfield Road, St. Albans, Herts. AL1 4JS Tel 01727 840303 Fax 01727 860263

Acorn

For More Details Call or Write to

BEEBUG

Acorn's Largest Dedicated Dealer

Beebug Ltd, 117 Hatfield Road, St. Albans, Herts. AL1 4JS

Tel 01727 840303 Fax 01727 860263

RISC

User Magazine

&

RISC

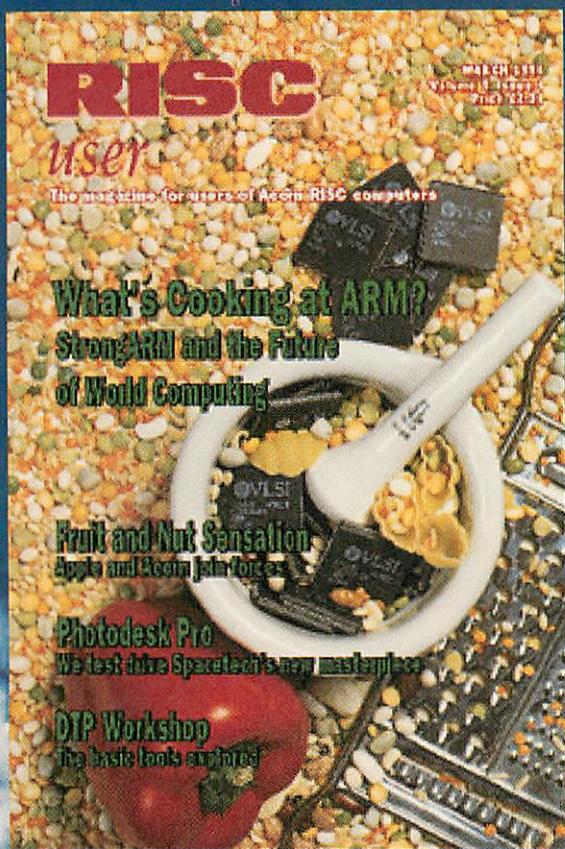
User Disc

(Not just a cover disc)

Change your image with the new-look RISC User magazine disc and ImageFS.



with the chance to upgrade to ImageFS²
at a saving of £20



Here is your chance to join the leading Acorn subscription magazine & disc, also receive ImageFS and Pipedream 3 absolutely free.

£74.00 for a one year subscription to both

For more information
telephone 01727 840303

If you are having problems with any of the following:

phone this number for personal advice

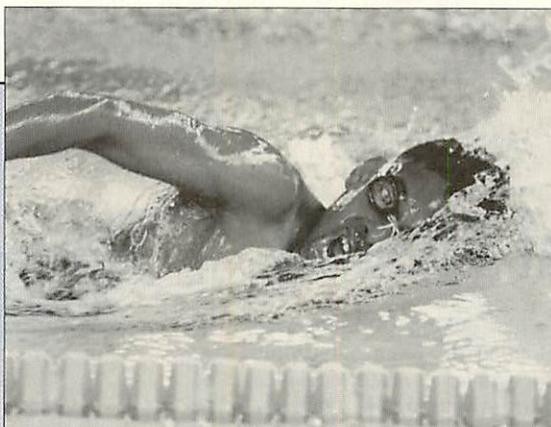


0891 518131

BEEBUG's PC Support line. 10am - 4pm, 49p per minute.



Essential swimming CD ROM



It had to come eventually – a CD ROM to teach you to swim. This Yorkshire International Thomson Multimedia (YITM) title Essential Steps to Swimming has received a key endorsement from champion swimmer Adrian Moorhouse MBE and is approved by a number of swimming associations. The CD features video clips on different swimming tech-

niques and pool safety and is aimed at both novice and experienced swimmers. Animated colour graphics demonstrate how you float and how your arms and legs act as levers, pushing you through the water. Essential Steps to Swimming is available as a dual-format PC/Acorn CD ROM and is priced £53.58 + VAT. YITM, tel: (0113) 243 8283, fax: (0113) 243 4884.

New software for your XOB teletext card

Users of the XOB Tele-Card teletext podule can now grab teletext sub-titles in real-time using some new utility software which XOB is making available free of charge to its customers. The software is being bundled with the latest release of the Tele-Card's standard software. One suggestion is that you can capture sub-titles of a programme to effectively construct a pseudo script for that show. You can also use the software for investigating how new teletext services like PDC (programme deliver control) work. Single-user cards are priced £152 + VAT, including teletext frame editing features. Network server versions of the card are also available. XOB, tel: 01307 840 364, e-mail: telecard@xobs.demon.co.uk

Clubbing in Derby

DARC, the Derby Acorn Risc Club, is to hold its inaugural meeting on the evening of Monday April 15th at the Church Hall of St Augustine in Duffield, just off the A6 on the Little Eaton Road. The meeting starts at 7:30PM and guest speaker is none other than ART's Chris Cox who looks after Clan Acorn. Future meetings will be held on the second Monday of each month. For more details, contact acting chairman Mike Smith, tel: 01629 540281.

Electricity and circuits for kids

Camboard Technology produces Simple Circuits, a combined software and hardware educational package, exclusive to Acorn computer users, designed to introduced the concepts of electricity and electrical circuits to key stage 2 students. The software shows how to build circuits using supplied components and then quizzes students on their results. A site licence for Simple Circuits is now available, priced £49.95 + VAT, including one hardware pack. Single users can upgrade to a site licence for £20 + VAT. Camboard Technology, tel/fax: (01223) 264512, e-mail: 101320,447@compuserve.com, World Wide Web: http://www.ourworld.compuserve.com:80/homepages/camboard/

JAVA processors to challenge ARM?

Everyone is Java-mad at the moment — not least Acorn and Oracle as Java will be a core component of Oracle's new Acorn-developed and ARM-based NCs. Sun Microsystems originally invented the Java Internet application programming language, and its microprocessor division, Sun Microelectronics, estimate that the Java phenomenon will lead to a networked microprocessor market topping \$15 billion by the year 2000.

Sun is in the business of making big, powerful and very expensive RISC processors, called SPARCs for graphics workstations and system servers. Now, Sun says it has developed a family of slimline SPARCs optimised specifically for running Java. Sun has also promised they will be cheap and consume little power. That could be bad news for ARM; low cost/low power is ARM's motto. The boffins will also tell you that without a maths co-processor, an ARM7500-based NC is not going to make the most of Java.

The word from ARM is that they are unabashed by Sun's

claims. ARM leads the MIPS/watt stakes by a wide margin and 7500 chips are as little as \$25 a throw in big enough quantities. The other fact is that ARM 7500s exist today and Sun's new chips won't even be available as samples until later this year.

Compared to an ARM, Sun SPARCs are monster chips and are reckoned to cost twenty times and upwards the 7500 target price. SPARCs glow when they run too, so power consumption will be a tough problem for Sun to deal with. SPARC is not the most admired RISC architecture, either. Nevertheless, Sun's picoJava, microJava and UltraJava chips will be based on scaled down SPARCs with architecture optimisations for running Java.

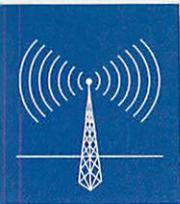
While remaining un-phased by Sun's announcement, ARM is signalling that it is not resting on its laurels. ARM has been quietly figuring out an internal roadmap for development of the ARM architecture in the direction of Internet surfers, among other things. ARM's alliance with Digital, which has produced the

StrongARM, should help ensure the ARM architecture can respond to challenges from competitors like Sun.

A recent Sun statement read: "Industry analysts estimate that the overall microprocessor and microcontroller market will top \$60B by the year 1999," stated Rajesh Parekh, Sun Microelectronics' Embedded Products Group vice president and general manager. "Today the average business person harbours more than 10 microcontrollers.

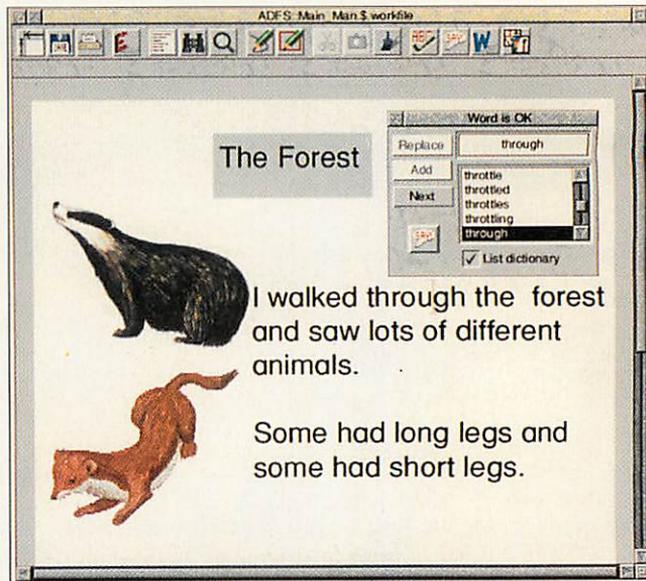
"By 1999, the average home will contain between 50 and 100 microcontrollers. And worldwide there will be more than 145 million cellular phone users — each with at least one microcontroller. The result? Millions of cellular phones, security systems, entertainment systems, low-cost network terminals, and other internet appliances operating within a network and highly optimized for small applications or applets running at top speed."

ARM would certainly agree with that, but Sun will have to fight for its share.



Talking word processor for Special Needs

SEMERC showed Pages (£49 + VAT), a new talking word processor designed to help special needs children, at the recent Education Show at the Birmingham NEC. Pages resembles an on-screen paper and pencil case, but offers many word processor-like features. Typed text can be played back as spoken words and Pages is compatible with SEMERC's other word processor, Phases. Also featured on the stand were Maths Frames (£39 + VAT), a package for building pictorial scenes using numbers and the award-winning letter formation helper, Claude and Maud (£36 + VAT). SEMERC, tel: 0161 627 4469, fax: 0161 627 2381



Oracle shows NC prototype

Oracle has shown an industrial design prototype for its Network Computer. Unfortunately, photos of the prototype, designed by Frog Design — which has worked with Apple in the past — weren't very clear and there isn't a lot we can tell you about it. In fact, ART chief, Peter Bondar, told Acorn User that it was unlikely that Oracle would want get into the business of building NCs itself, instead it's licensing its designs to third parties in typical manufacturing centres like the Far East.

Acorn User has also learned that Oracle has demonstrated a working NC prototype to developers based on Acorn technology, though the job of porting the Sun Java language to the RISC OS-based operating system has not yet been completed.

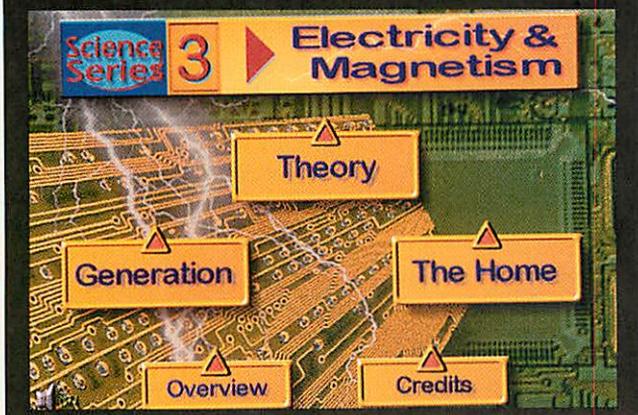
Sibelius hits the headlines again

Is there no escape from Sibelius mania in the press? The latest clipping — half a page of it — comes from The Times on Wednesday January 31st. The article interviewed the brains behind the Sibelius music composition package, Finn twins, Jonathan and Ben, with regard to the proposition that Sibelius has changed the way composers do their work for ever. If that wasn't enough, the same issue of The Times saluted the brothers in a leader article for producing a "device to which the music world should be indebted."

Just to round off another busy month for Sibelius Software, a new 'baby' version of Sibelius has been released. The new £49 + VAT Junior Sibelius package was launched at the recent Education Show and is aimed at music novices. Sibelius Software, tel: (01223) 302765, fax: (01223) 351947, e-mail: info@sibelius.demon.co.uk, World Wide Web: <http://www.acorn.co.uk/sibelius/>

New CDs from YITM at the Education Show

Yorkshire International Thomson Multimedia (YITM) showed several new CD ROM titles for Stage 1&2 and 3&4 students at the recent Education Show in Birmingham. Titles included Late Victorians (£79 + VAT) — part of the How We Used to Live series, Unterwegs (£79.99 + VAT) — translated as 'on the way' for 11-16 year old German language students, plus two editions of the for Stage 1&2 and 3&4 students, respectively. The primary edition of the Electricity and Magnetism CD ROM is priced £59.99 + VAT and the secondary version £79.99 + VAT. YITM, tel: (0113) 243 8283, fax: (0113) 243 4884.



The first Acorn telecottage?

Thilmcraft in Dereham, Norfolk, the local Acorn dealer, believe they have set up the first ever Acorn telecottage, the Dereham Digital Centre. Hilary Pegg, business partner, explains: "We began dealing in Acorns because we use an Acorn in our desktop publishing business and, like other Acorn enthusiasts, we feel we must stand up for RISC technology." Through the Telecottage Association, the Dereham Digital Centre was formed to serve clients all over the local area. You can't get much closer to the ideal of a telecottage at the Dereham Digital Centre — it is located in a flintnapped converted stables. The centre functions as facility for scanning, printing, Internet access, telephone answering, etc., with a firm village community bias. Now Hilary and her husband, Tim, are looking for sponsors to help them develop TeleWork Norfolk, a regional group of the national Telecottage Association. Dereham Digital Centre, tel: (01362) 691690, fax: (01362) 699664, e-mail: thilm@paston.co.uk, World Wide Web: http://webzone1.co.uk/www/east_anglia_online/index.ddc.htm



2Mb A3010 computer
plus
£200 worth of 1st class
Acorn software for only
£185

SOFTWARE:

StartWrite (Wordprocessor),
Application Suite, Mouse Mat, software
brochures and **discount vouchers**,
PLUS choice of Options 1 or 2 below
(£39 extra for both together)

OPTION 1 - EARLY TIMES BUNDLE.

- Artisan 2.** Art package from Clares.
- Doris the Dotty Dog.** Naughty story from Sherston.
- Daryl the Dragon.** Adventure story from 4Mation.
- Amazing Maths.** Mental arithmetic from Cambridgeshire Software House.
- Gemini.** Matching pair game from Cambridgeshire Software House.
- Maths Gen.** Maths worksheet creator from Gremlin.

OPTION 2 - HOME BUNDLE.

- Resultz.** Spreadsheet from Colton Software.
- Desktop Database.** Database from Iota.
- Revelation.** Art package from Longman Logotron.
- Zool.** Fantasy arcade game from Gremlin.

THE CASTLE TECHNOLOGY PRODUCT RANGE

Scanflat • from £349

- ◆ Flatbed SCSI scanner
- ◆ Fits all Acorn computers with SCSI interface
- ◆ ImageMaster software included
- ◆ Fast scanning speed - 3.6ms per line
- ◆ Twain compliant

CD-ROM • from £65

- ◆ Supplied with Acorn Driver
- ◆ Choice of SCSI or IDE interface
- ◆ Free headphones, Photoview & Audioplayer
- ◆ Compatible with Kodak Photo CD
- ◆ Internally or externally housed

Hard Discs • from £89

- ◆ 2.5" or 3.5" sizes
- ◆ Fast access of up to 8ms
- ◆ 20Mb to 2Gb capacity
- ◆ Formatted and soak-tested
- ◆ Interface may be required

Light Pen • £199

- ◆ Suitable for all Acorn computers
- ◆ Menu & select buttons on pen
- ◆ Instant response time
- ◆ Three colour aluminium or plastic casing
- ◆ National Curriculum "input device"

Ergo Keyboard • £99

- ◆ Built in wrist support
- ◆ Tested to 30 million operations
- ◆ Quiet, tactile and curved low profile keys
- ◆ Full two year guarantee
- ◆ International versions available

Quest Removable Drive • £199

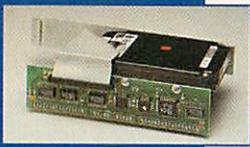
- ◆ 3.5" 105/270 Mb capacity
- ◆ 5.25" 200Mb capacity
- ◆ SCSI or IDE interfaces
- ◆ Programmable power saving modes
- ◆ Internal or externally housed

SCSI Disc Share • from £199

- ◆ Suitable for all Acorn computers
- ◆ Easy to use and manage
- ◆ Share CD ROMs, scanners and printers
- ◆ The fastest disk sharing system
- ◆ Plug-in and go installation

IDE and SCSI Interfaces • from £65

- ◆ Designers of interfaces since 1988
- ◆ Connect your computer to hard drives etc
- ◆ Up to seven devices per interface (SCSI)
- ◆ Available for all Acorn computers
- ◆ Transfer rates of up to 4.5Mb/sec



IDE Interface



Ergo Keyboard

A Special Offer from

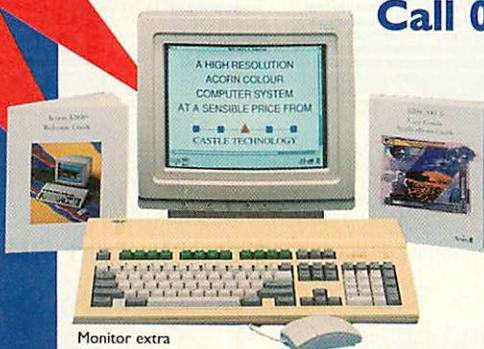


CASTLE TECHNOLOGY

Acorn User Best Dealer Award 1995 - Runner-up

Available now while stocks last!

Call 01728 621222



Monitor extra

ORDER 10 - GET 1 FREE!

Order 10 computer systems with hard drives and monitors and we will supply one of our Special Offer 2Mb A3010 computers FREE!

ORDER NOW!

Order by telephone on 01728 621222 or Fax on 01728 621179.

Delivery £9 per computer. Prices exclude VAT. Cheques*, debit cards (Switch & Delta), credit cards (2% charge may apply), and educational orders accepted. All trademarks acknowledged.

*Cheques: allow 5 working days to clear.

Connect our amazing offer to your TV, or use any of the options below to create a high specification computer system:

HARDWARE OPTIONS:

- 2-4Mb RAM
- High resolution colour 14" monitor
- Hard Drive (60Mb, 120Mb, 200Mb, 500Mb)
- SCSI Interface
- CD-Rom Drive
- MIDI Interface
- Printer
- Etc., etc.

THE A3010 COMPUTER

The A3010 is ideal for schools, small businesses and, of course, in the home. The A3010 shares the same processor and main electronics as the A3020 & A4000 computers. It has one internal expansion slot, a serial port, two joystick ports and a parallel printer port.

SPECIAL SPRING OFFER!

SCANNER
plus **SCSI Interface**

SAVE £120!

Available now!
Call 01728
621222

SAVE £100 ON A SCANFLAT SCANNER

SAVE £120 WHEN YOU BUY A
SCANFLAT + SCSI INTERFACE!

SCSI II INTERFACES

(when bought with scanner):

A30x0 / A4000 £69 (RRP £89)

Other Acorn computers £79 (RRP £99)

Buy one of our top quality Scanflat A4 flatbed scanners and start to realise the true power of your Acorn. Save time: scan in photos, drawings or logos etc; create your own full colour pictorial greetings cards, newsletters or reports; or use it to enhance your multimedia programmes.



Scanflat 600

Use the Scanflat range to reproduce beautiful photos like this:



Framlingham Castle, once one of the strongest fortresses in Britain

- ◆ **Special Offer SCSI interface for £69 (or £79 - see above) makes installation easy**
- ◆ **Line art, grey or 24-bit colour modes**
- ◆ **Pre-scan colour/brightness control**
- ◆ **Free ImageMaster Software & TWAIN driver**
- ◆ **Full 1 year guarantee**

Watch out for more price-beating offers!
For a full price list and colour brochure call 01728 621222

	DPI	Brochure Price	Offer Price
Scanflat 600	600	£449	£349
Scanflat 800	800	£549	£449
Scanflat 1200	1200	£699	£599

Delivery £9 per scanner. 2% credit card charge may apply

TURBO

RISC OS 3

DRIVERS

TurboDrivers – a range of **exceptionally fast RISC OS printer drivers**, optimised for a wide range of popular mono and colour printers from Canon, Hewlett Packard and Epson.

Simply the **fastest printer drivers available** for Acorn 32 bit computers

Full 24 bit colour support

3 or 4 colour separations

Extensive halftone screen control – different screen types, angles, screen density – features you would normally only find on expensive PostScript printers

Print from file entirely in the background

Support for all the most popular Canon, Hewlett Packard and Epson printers

New diffused dither option to produce near-photo quality bitmap printing



With the availability of new low cost colour inkjet printers and the increasing use of colour in printed documents, there is now even more reason to use TurboDrivers than ever before.

TurboDrivers RRP: £49 + VAT (£57.57 inc.)

Require RISC OS 3.1 or later and !Printers 1.22 or later, 2Mbyte RAM for mono work and 4 Mbyte for colour work. A hard disc and !Printers 1.28 recommended. Does not work with !Printers 1.52. TurboDrivers are available for Canon, HP Deskjet/LaserJet and Epson Stylus printers. Please state printer make and model when ordering. Site licences and network spoolers are available. Computer Concepts can also supply a range of Canon bubblejet printers with TurboDrivers - please ask for details.



Computer Concepts Ltd

Gaddesden Place, Hemel Hempstead, Herts, HP2 6EX Tel: 01442 351000 Fax: 01442 351010
Email: info@cconcepts.co.uk Web: <http://www.cconcepts.co.uk>



Graphics

Photodesk 2 – Photoshop for the Acorn

PHOTODESK 2, the professional version, as previewed in last month's battle of the bitmap packages, has now entered the final stages of beta release and by the time you read this, it may well be on sale.

I reviewed a much earlier pre-release of the program last month, but the functionality is now complete and running quite smoothly.

What is most remarkable about the package is the care and attention that has been paid to emulating industry standard facilities that look and behave in the same way as they might in Adobe *Photoshop*, though somewhat smoother on many occasions.

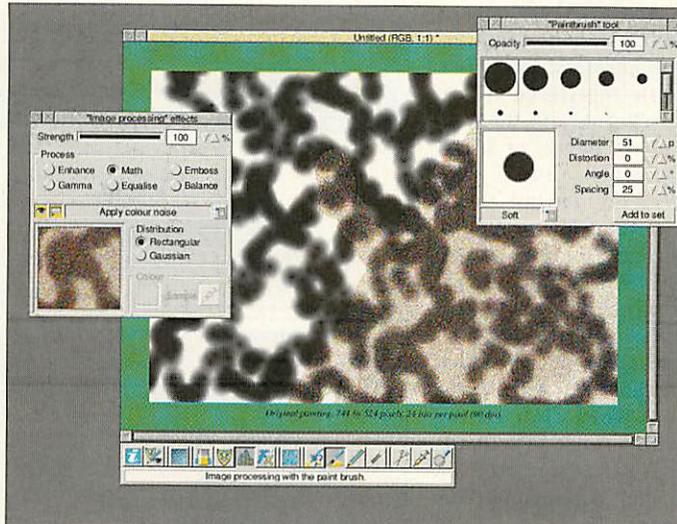
Cutting and pasting are just superb, with floating sections previewable with variable opacity, antialiased and feathered edge options and superbly rendered distortion effects using high-quality bi-cubic smoothing algorithms.

Painting is now very *Photoshop* with antialiasing at every opportunity and many of the effects, new and old can now be previewed, some even in real time, in special viewing windows in which you can pan your image.

For the professional user, the calibration tables are invaluable and have been integrated into an attractive and friendly interface. There has obviously been a great deal of effort

invested in perfecting the art of reproducing the best possible printed image from an RGB original. There are some things that the extremely complex and grossly overpriced software for the Mac and PC currently do that *Photodesk* cannot, but it is very early days.

The package has caught up with the industry and in many ways overtaken it in a matter of months against silly odds. It is such a pity that third parties like Fractal Design would not think of writing plugins for the Acorn platform as this would cast dark shadows on *Photoshop's* standing as the world's best and most comprehensive image processing and editing tool.



Photodesk 2 with its *Photoshop* style preview windows and truly professional processing effects.

The Italian job

The Italian creators of the 3D modelling package, *Top Model*, have announced that the all future versions of the program will include the now complete manual and boxing. It is likely that UK distributors will be Spacetech which in my opinion is probably the best company to do the job now that Computer Concepts has gone somewhat AWOL with regard to graphics on the Acorn.

The latest version of *Top Model* has even faster 24-bit rendering and a fixed camera but rotatable scene animation facility. Z-buffering has also been implemented but all the fabulous developments that Synchronia were promising have been put on hold in the light of the dramatic move made by Acorn to concentrate the sales of RISC OS machines into schools alone. Exciting as their new projects are, I and many others I imagine, will be very disappointed if the professional *Top Model* does not come to fruition in the next year or so.

Synchronia is now also on the Net. For all those who have written to ask for email, the address is PCPOOL@flower.it.

StrongARM

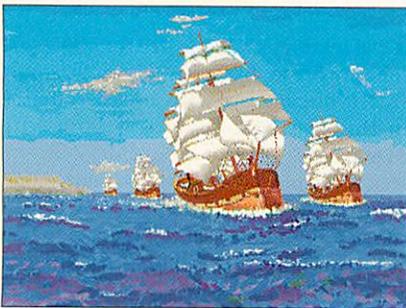
Already shipping, the StrongARM series of microprocessors are set to shake the world of computing. But will Acorn RISC OS users benefit? I have a feeling that the chips ranging from 100-200MHz (but could certainly manage faster rates) are a great performance breakthrough, but only potentially.

Risc PCs have a bus that is too slow to take full advantage of the chips phenomenal processing power. Having now examined the technical details of the StrongARM, we will need changes to RISC OS and motherboards, plus secondary chip caches and perhaps even Superfast Static RAM on the daughterboard so that the strong ARM will be of any all-round, real-world advantage. Let's hope ART will not disappoint us.

Contacting me

You can contact the graphics and DTP page by writing to me, Jack Kreindler at Acorn User, Media House, Adlington Park, Macclesfield SK10 4NP, or by email to jack@argonet.co.uk.

Pic of the month



MR S GOREHAM has won the Pic of the Month competition once before with his piece entitled *Yacht*. Still on a nautical note, *Ships* is another beautifully painted image accompanied by a more terrestrial *Church* both created using a program written by a friend of his.

Mr Goreham's ability to produce such fine artwork from a meagre A3000 with 2Mb of RAM continues to astound me but sadly it seems that these are his last two paintings. Mr Goreham, now aged 81 says that his eyesight is not what it used to be and unfortunately, his A3000 has recently packed in. I wonder if there's anyone out there who can help?

So, despite not really entering these pictures for the prize, Mr Goreham wins £20 which may help fix his A3000 and go towards a bigger monitor perhaps. Please remember that every winner gets a free slide recording from the Digital Darkroom.



Risky WebGif2

WebGif2 — Ian Jaffray and Riscy Development's latest utility for World Wide Web page designers — is now available. Ported from the work of Tom Boutell in Seattle, Ian's Desktop version creates GIF images from Acorn sprites, with options for interlacing and point-and-click selection of transparency colour. If your Web pages are a drag, this essential tool can transform them at a click! You can download this FreeWare from:

<http://www.foo-bar.co.uk/dialin/ganymede/riscy/>

Jolly Roger BBS

Daniel Garrod claims his Jolly Roger BBS as the first Acorn BBS in Cambridge. Online from 6pm to 11pm at the moment, it runs with ArmBBS on a RiscPC 600 and the modem supports calls to 14,400bps. The filebase is growing but more users and uploads are welcome. Jolly Roger has a Fidonet Point address 2:2501/216.2.

Jolly Roger BBS
(01223) 264315

CU-SeeMe for Acorns

Off to Germany now, where Peter Schmidt and the KISS group are working on an implementation of a video-conferencing Internet CU-SeeMe Client for the PD FreeNet stack. The group plan to use the same low cost video camera used in the packages already available for PC and MAC platforms as the video/audio input device. Anybody interested in joining the project should email competer@kiss.de.

Contacting me

Send me any interesting Acorn-interest URLs you find, and I'll publish a monthly selection. You can contact me by writing to David Dade, Acorn User, IDG Media, Media House, Adlington Park, Macclesfield, SK10 4NP, or by e-mail to: DavidD@arcade.demon.co.uk, or mail #2 on Arcade BBS 0181-654 2212.

On the Village Web

THE World Wide Web is wonderful to browse through, giving you limitless information on almost every subject you can think of, opening new vistas on subjects beyond your knowledge, and you can experience this by following links in a purely random way. When looking for something specific though, you need the information gathered together in one place for easy retrieval.

The Acorn CyberVillage is a Web site that aims to do this for Acorn users, and in their own words "provides a one-stop source of information on all things Acorn-related." Although it's by no means the only Web site of Acorn interest, it has some attractive features for both commercial users and club groups or individuals who would like a Web presence.

Acorn CyberVillage is run by *Quantum Software* and *Rheingold Enterprises*, both registered Acorn developers with the well-known names of Stuart Halliday and Alan Wrigley behind them. The hook for non-commercial club users is that the Web space rental charges are half their very reasonable commercial rates. This works out at about £10 a year for a 300 word club listing with a single logo image, and £15 a year for 200K of non-commercial Web space.

The CyberVillage site has direct links to the

four Acorn-owned company sites and sections of pages for third-party developer and dealer companies and services, including areas for *Archive* magazine and our BBS friends at the Digital Databank. The CyberLinkage section has direct links to some very useful Acorn documents and selected PD software from around the Internet.

The CyberVillage also features a news section called *Heard on the Net*, with Acorn-interest items gleaned from around the Internet, such as reports on the Acorn NetSurfer product and editorial comment by Tim Rice (not THE Tim Rice?) which is unusual for such a site. For more information, go to the Acorn CyberVillage home page at:

<http://www.cybervillage.co.uk/>



Some of the Cybervillagers

Seek and shall ye find?

THE sheer quantity of information available on the World Wide Web makes it difficult to know where to start when you want to find something specific. To narrow the search, you can visit several Web page 'search engine' sites where you to enter key words in a writeable box, and it sends back lists of Web URLs of pages containing your key words for you to follow up.

I tested some of these search sites with key words chosen to find some graphic resources for Web page building.

First I tried the Lycos Catalog of the Internet site at <http://www.lycos.cs.cmu.edu/> and my search string was "textures in your own pages" hoping to find some PD graphics page backgrounds.

Lycos (eventually!) returned a list of 120 documents having "textures", "own" and "pages" all on the same page, pointing to useful advice about page building in the first few tens of URLs, but didn't mention Texture Land, which is a site

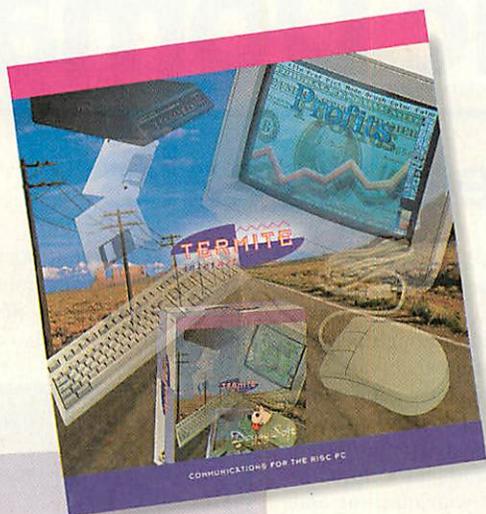
that has 298 textures available free for individual use. Webcrawler at <http://webcrawler.com/> found 1,210 documents with useful resource links in the first 25 URLs listed, including Texture Land.

Infoseek at <http://www2.infoseek.com/> found 100 titles (it said) and the first page of 10 had plenty of good links to free background material. Infoseek listed Texture Land in its second screen of 10 titles. <http://www.yahoo.com/> found 520 pages containing the key words, but Texture Land wasn't shown in the first 50 matches.

Next I tried a Usenet newsgroup message search for references to "arcade bbs". Dejanews at <http://www.dejanews.com/> found 1208 pages, but on examination some of these were not relevant, having 'arcade' well separated from 'bbs' by other text.

So to get the best from these Web tools, you need choose your key words quite carefully and always try more than one 'engine'.

Join the 'Information Superhighway' with DoggySoft's Termite Internet



Termite is an all-purpose communications package for Acorn RISC OS computers. It gives you access to the vast range of bulletin boards around the world, and to the biggest network of them all — *the Internet*.

TERMITE INCORPORATES THE FOLLOWING:

- An extremely easy to use and consistent user interface.
- A dialling directory packed with bulletin board numbers from around the country, all supporting the Acorn community. Just click on where you want to go and you're there!
- An offline mail-reader application offering support for reading and writing messages on the Internet and bulletin boards.
- Built in call costing, to continuously inform you how much you have spent so far.
- A comprehensive but simple script language which allows you to automate your activities.
- A range of emulations and file transfer protocols, to ensure that you can connect and transfer files on the majority of the bulletin boards.

FOR ACCESSING THE INTERNET:

- A feature-packed web browser supporting the latest extensions for browsing the *World Wide Web* and *gopher* in style.
- *Newsgroup* and private *email* support, providing both a forum for discussion and personal messaging.

- *ftp* (file transfer) facilities allowing you to transfer files to and from your own computer.
- The ability to connect to other machines on the Internet using *Telnet*, for example you can join in a chat with dozens of people or connect to an Internet bulletin board.
- Miscellaneous useful functions such as *ping*, *time*, *traceroute* and *finger*.
- There are also lots of servers included — even a web server, so that while you are connected others can read your own WWW pages.

REQUIREMENTS:

- 2MB RAM minimum (4MB Recommended).
- Risc OS 3 (version 3.10) or later.
- A hard disc drive.
- A Hayes compatible modem (14400bps or greater recommended)

If you wish to use the Internet features you also require a subscription to an Internet provider.

£79.95^{+VAT}
+£5 Postage and Packing



**COMMUNICATIONS FOR THE
ARCHIMEDES & RISC PC**

FURZEFIELD HOUSE, FURZEFIELD ROAD,
BEACONSFIELD, BUCKS., HP9 1PQ
TEL: 01494 673222 FAX: 01494 675878 BBS: 01494 677728
e-mail sales@doggysoft.co.uk support@doggysoft.co.uk
http://www.doggysoft.co.uk/

Highway Open

Public Domain

Feedback

Thanks for the excellent response to features in the last few issues, but if I can quickly re-iterate, please email me if possible or include an SAE with any snail-mail letters that require a response. Other than that, I'd be glad to help you out with any problems, or simply hear your comments on the column. In the spirit of the PD scene, please keep contributing!

Graphics appeal

I've had some interesting letters and software sent in after my appeal for graphics programs, some of which will be appearing in the column soon. It seems however that there's a lot of people out there who've produced perfectly good software for themselves or for work or school, and haven't thought of releasing it as PD.

So in case this provides the rest of us with some rather neat PD software, have a think about any programs you may have written that could easily be released as PD. *Acorn User* may even be able to feature them on the cover disc.

Express arrival

This seems such a great issue for news on the growth of our Acorn PD scene. A new German group in the form of Expression has recently moved to the Acorn scene from the C64.

I'll certainly be featuring more software from this talented crew in future issues, but in the meantime, you can already get hold of Expression's first release. 6502-Xass is a cross assembler program allowing 6502 code to be developed in a friendly Acorn environment. 6502-Xass is available on disk UT294 from the Datafile PD.

Contacting me

You can contact the PD page by writing to me, Paul Wheatley, at Acorn User, IDG Media, Media House, Adlington Park, Macclesfield, SK10 4NP. Or preferably, by e-mail to quantum@digibank.demon.co.uk.

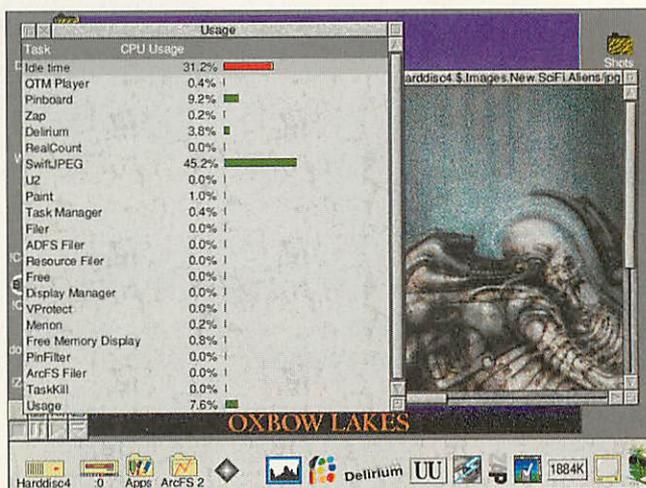
Speed Freaks

PROGRAMS that measure and compare the speed of computers always seem to prove popular and although personally I'm not a benchmark fan, two have recently caught my attention. The first, a new benchmark utility entitled *Bogomip* produces a *Bogomip* readout for your machine and complete C source code so you can make comparisons with other computers. The program is on the Datafile's disk UT249.

Usage by Ran Mokady offers a Task Manager style window, with the coloured bars representing not memory usage of each desktop task, but processor time used. All these programs suffer from some degree of inaccuracy, due to the amount of time that they

themselves take, but it's interesting to see what's gobbling up your processors performance. It could also be a

handy tool to check desktop tasks under development. *Usage* is on Hensa, and the Datafile's disk UT49.

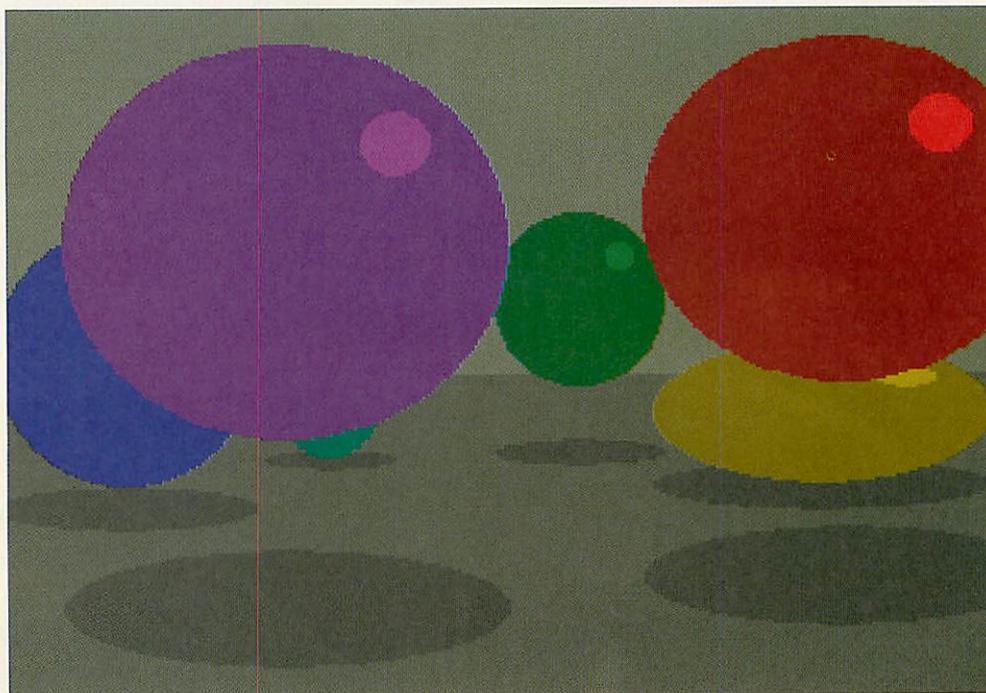


Cakehead

A surprise release from a new member of French coding group Arm's Tech, is a welcome addition to anyone's demo collection. *Cakehead* is a little intro by Baah, alias Dracua of Positivity from the old ST scene. The demo features a small number of really nice effects, coded primarily for ARM2 machines, but which still function well on my RPC.

My favourite is the bouncing balls routine where lots of coding cheats, the bread and but-

ter of demo coding, produce a very fast effect. The final effect features some attractive sparkley dot shapes that morph smoothly between designs. Full marks to musician, Cry of Experience for a nice dance tune that accompanies the production. My only complaint is the very abrupt ending to this demo, but apart from that it's all rather smart. *Cakehead* is on disk DM146 from the Datafile, and is accessible on the net from the Arm's Tech web pages.

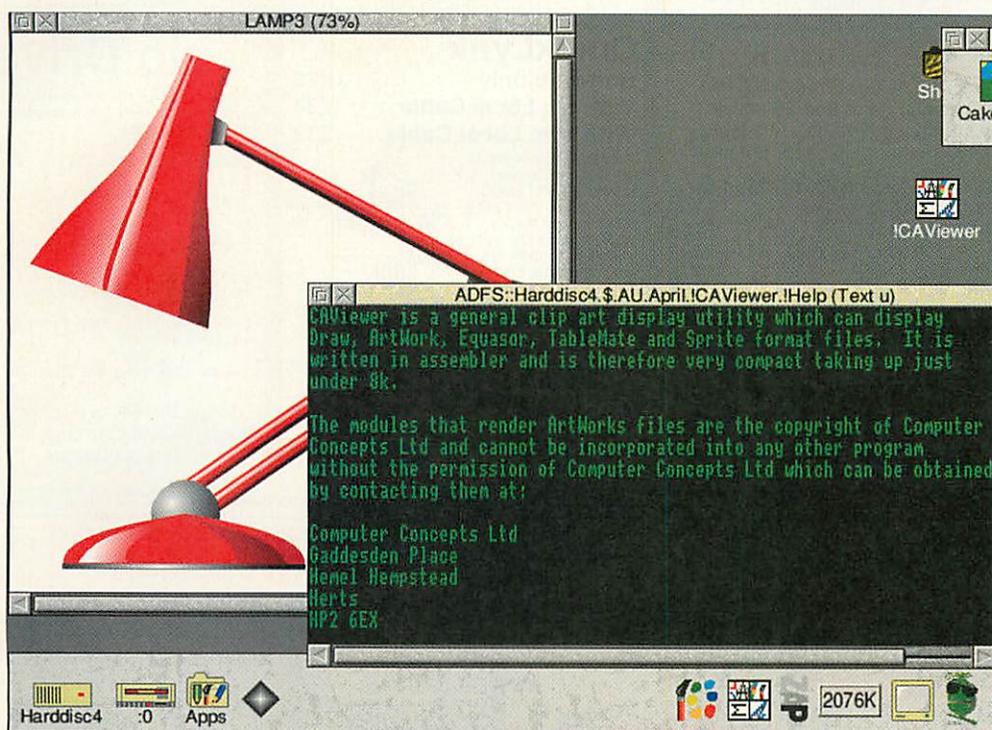




CAView

CAVIEW is a handy little clip art viewer, which, at a wimpshot of only 16K is hardly a burden to your desktop. The program, by Dean Sivell, provides display windows for any Draw, Sprite, Artworks, Equasor or TableMate files dropped

onto the icon bar. Not the most original of programs, but in your boot sequence, its handy none the less. **CAView** can be found at the Datafile PD on disk UT229.



Tetrix

RPC owners, deprived of Sick's version of the classic *Tetris* game under RISC OS 3.6+ should look no further than Excelsior's RPC friendly version, entitled *Tetrix*. There's a scroller and lots of nice parallax clouds, but I have to say it starts off a bit hard for me. *Tetrix* can be found on disk GA077 from the Datafile.

Digital Delusions

DELUSIONS is a new disc magazine produced with Musbury Consultants' Bookbinder multi-media tools, and offers a reasonable first issue. The mag covers all the usual areas for this kind of production, including software reviews and a clubs page. *Delusions* isn't up to the standard of productions like *Spectrum* and a few more articles rather than filling up the disk with boring PD would have been beneficial.

The magazine hopes to remedy this to a certain extent by appealing for software contributions from PD authors. Contributions of articles by readers, would really be more welcome as far as I'm concerned. But to sum up, its not bad for the first issue, and I'll be following the mag's development in future PD columns. For more information on *Digital Delusions*, contact: M. Chatterly, St Margo, Greve D'azette, St Clement, Jersey JE2 6PT.

Hardback

THE Careware utility, *Clickback*, has held the title of best hard disk backup program for quite some time now, but a challenger comes from the compiler of coder Theo Markettos. Theo's *Hardback* program offers a quality, albeit shareware, alternative.

Hardback features all the important controls you need, including provision for compression and goes further in making automatic backups or complete one step file restores easy.

Theo is quick to extol *Hardback's* virtues in comparison with *Clickback*, but at the end of the day, both packages are very comprehensive and deserve a look. The unregistered PD version of *Hardback* is available from the Datafile PD on disk UT281, with the registered version obtainable direct from Theo at: 5 Willow Close, Liphook, Hants, GU30 7HX.

Coder's Revenge

Good news on the German scene front comes fresh from the demo group Archiologics. The 'logics scene mag, previously only available in German, is moving to a multi-lingual release for all us ignorant, English-only speakers. With the potential of the English speaking scene input, the decision to write German-only scene magazines does seem to be a little strange. Let's hope some of the other magazines will follow suit, in a move which many German and English speakers I know, will welcome. More information on availability and content, when the next issue of *Revenge* hits the streets.

Optic

Fibre Optic is a new disc-based magazine featuring a mixture of Acorn related subjects, including the Internet, comms, programming, games and other subjects. *Optic* is available from the Digital Databank BBS, and I'll be covering it in greater depth in a later issue. Contact the author at: jonathang@starnet.demon.co.uk.

Get involved!

There seems to be quite a lot of newcomers to the scene at the moment, with disk magazines being launched left, right and centre. This is exactly what we need right now, so please get out there and help by contributing some articles. Having edited a disc magazine myself for several issues, I know that these things need a lot of reader input. As I keep on saying in *Acorn User*, please get involved.

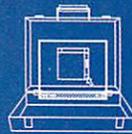
Figlet

The official web site for the multi-platform email sig program which was reviewed last month, can be accessed at: <http://st-www.cs.uiuc.edu/users/chai/figlet.html>. Software, as well as access to mailing lists and discussions are all available from this site.

Extreme update

By the time you read this, an update of the *X-Treme* demo will be available from the Arm's Tech web site and the Datafile PD. At the time of writing, I don't know the nature of the update, but I'm hoping for some smoother presentation and linking of the existing high quality effects.

Portables



Pocket Lab

THE Acorn Pocket Lab is a new scientific data-logging solution for Pocket Book users. It has been designed around the LIVE data-logging unit and can be purchased as a complete kit or as an upgrade for existing Pocket Book users

The Pocket Lab is supplied with the LIVE data-logger, temperature and light sensors, a 128K flash disc containing the software and a number of spreadsheet templates, a teacher's guide and activities disc. A single unit containing a Pocket Book and all the required hardware costs under £500.

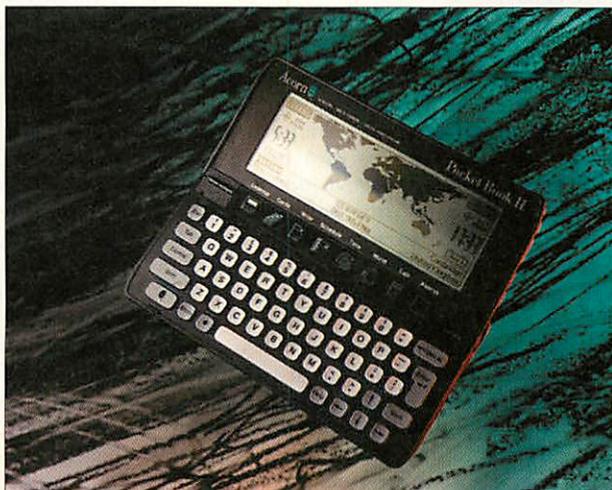
The Pocket Lab software enables data from three sensors to be recorded simultaneously and then analysed in real-time on the Pocket Book: pupils will be able to see the temperature changing as the sensor is moved. It also allows you to pan and zoom around the data in order to examine it in more detail. Readings may be taken by clicking on the graph at any point.

Users can also buy a wide range of more specialised sensors including one that will measure pH, magnetic field strength, voltage,

current, sound, humidity and air pressure. A CheckIT display can also be purchased to allow the system to be used as a meter.

With the endless number of sensors that are available the Pocket Lab solution could be used in many different curriculum areas and would be a worthy purchase for any school.

Acorn Education
Tel: (01223) 254254



The MediaPad

THE MediaPad from Acorn is, alas, not a new portable from Acorn but a new name for Acorn's excellent Pocket Book II. The MediaPad is designed to fit into Acorn's new Media-Range of products announced at BETT '96 and is described as a solution to 'link, fetch and carry' data between the rest of the range.

At the simplest level this could involve taking school work home, working on it and

then uploading it onto a computer at school the following day. Looking into the future, the MediaPad could become an ideal companion to the Media-Surfer. E-mails could be composed on it, uploaded on to a MediaSurfer and then sent to whoever via the Internet.

Another development is the Pocket Book version of 'The Three Little Pigs', converted from the popular CD. Although all the pictures were

in black and white and the sound a little squeaky, they were both perfectly adequate. Proof perhaps that the Pocket Book has more educational uses than many first thought.

With all these recent developments it becomes fairly obvious that Acorn hold the Pocket Book in high regard and have plenty of exciting plans for its little baby.

Acorn Education
Tel: (01223) 254254

Purple Update

PURPLE Software, one of the biggest third party developers for the Psion, have announced a couple of new applications. *3a Chess* is a new version of the classic game - Chess, it takes full advantage of the enhanced graphics capabilities of the 3a and features both 2D and 3D graphics, various difficulty levels, a chess clock and a set of master chess games. The program costs either £34.95 on floppy disc or £39.95 for an SSD version.

The other is *DataView Pro*, a new version of the excellent *DataView* package. This features both a

table and card view, user definable lists, single and multi-level searches, advanced printing options and the ability to enhance sorting by defining fields as text, numeric, currency, date and time. The program costs £59.95 for the floppy disc version and £69.95 for the SSD one. Updates from *DataView* are available. I hope to take a more detailed look at this package next time.

Purple Software
Tel: 0171-388 3111

Attention Pocket Book users...

In the near future I am interested in doing some case-studies on how Pocket Books are used, both in schools and in unusual circumstances.

If the way you use your Pocket Book fits into either of these categories then please contact me at the usual Acorn User address.

Pocket-able Books

If you're looking for something to put your Pocket Book in when you are carrying it around, Widget software might have the answer.

They have just released four new cases designed specifically for your Pocket Book. These range from a holster-style case to a 'zip and flip' briefcase style one. Most of the cases will also hold a couple of SSD's and will make an ideal companion for your Pocket Book. Prices range from £13.95 to £49.95(!).

Widget Software
Tel: (01438) 815444

Password Protection

One of the few features that the Psion 3a has always had but the Pocket Book II hasn't, is the ability to password protect your portable.

If anyone has written a program that will do this for a Pocket Book then please let me know at the usual Acorn User address.

Limited Edition Psion 3a

Psion has just announced a limited edition 3a. It comes with 2Mb of memory and has a smooth wood-effect finish. The model is available now, costs £449.95 and is available from all Psion outlets including Harrods.

Contacting me

You can contact the Portables page by writing to me, Mark Taylor at Acorn User, Media House, Adlington Park, Macclesfield SK10 4NP, or by e-mail to aueditor@idg.co.uk.



Other news

The licensing agreement between Oracle and Acorn is another area where Acorn is helping to smash the Wintel dominance and the likely spin off in terms of the net surfer computer appears to be gaining momentum. The heart of the machine is a RISC-based 50 MHz ARM 7500 processor. Likely sales predictions in the region of 1 million units to ship following the debut in September.

Prices are quoted at around \$500 and I would expect that to translate directly into pounds sterling. Expect a boom in Internet provider support for the new machine. Shares in any provider already floated look a good bet as do Acorn's own shares. Then again I still put my £1 each week on the Lottery.

Business credibility

One of the biggest barriers to using Acorn's in Business, and persuading people that they're the viable alternative that they genuinely are, has been credibility. As long as Acorn's fame (or notoriety) was confined to the classroom no self-respecting (ill-informed) businessman would give them a second glance for the *serious* needs of business.

But that's changing, the deals with Apple, DEC (via ARM Ltd) and Oracle, the fact that you can't open the business pages of a newspaper without seeing Acorn's name linked with yet another major world player means that Acorn is gaining credibility. At last it's becoming possible to push Acorn seriously without having to worry about the "they're only education" reply.

Contacting me

You can contact the Business Page by writing to Mike Tomkinson at *Acorn User*, Media House, Adlington Park, Macclesfield SK10 4NP or by e-mail to aubzniz@idg.co.uk.

Acorn mean business

Mike Tomkinson takes over the Business Page chair

SINCE the departure of Alex Singleton for new pastures and the demise of the Business Page from *Acorn User* I have felt there was something sadly missing. Happily for me the editor agreed and here it is, the Business Page is back.

If you have any news items you wish to see featured here please let me know. The sort of thing that I'm after is anyone using Acorn machines in a business context — no matter what the size — or perhaps how using Acorn machines in a business has brought particular success, not necessarily how using a payroll program has successfully paid your staff each month (though I'm sure that pleases the staff) but maybe a bit more exciting. I also require software news.

So why the return of a business page? After all it's one of the areas that Acorn has been a little less successful in penetrating. Well, that's precisely the point, I want to show how using RISC OS machines in business can lead to success.

There are at least two developments which seem to indicate the need for a Business Page — the forthcoming PC developments from Acorn and the joint venture with Apple. By PC developments I include faster and better PC cards to run on existing Risc PCs as well as the new Acorn PC line-up mentioned in last month's news pages.

Although the Acorn and Apple get together is not a merger in the strict business way and is described as a joint venture it marks the way forward. Neither company alone can compete against the dominance of the PC world — even in the Education market. I know the pressure IT co-ordinators are under to conform to the so-called *industry-standard* PC. The PC cannot be ignored but it is possible to offer an alternative and better computer and this is what Acorn has been doing.

Business is often a matter of habit — even the most innovative and forward-looking company can be very conservative in the data processing department but the monopoly can be broken. Apple did it with a product that dared to be different and that acquired cult status and then conformity among the DTP business. Acorn has had such opportunities but never the marketing budget to go for a niche market other than education.

It is time for change — we all support a good product and a British one at that. I am not advocating a jingoistic *Buy British* campaign but there are worse alternatives and they're in common use. If you have any influence at least persuade your IT purchaser to consider Acorn.

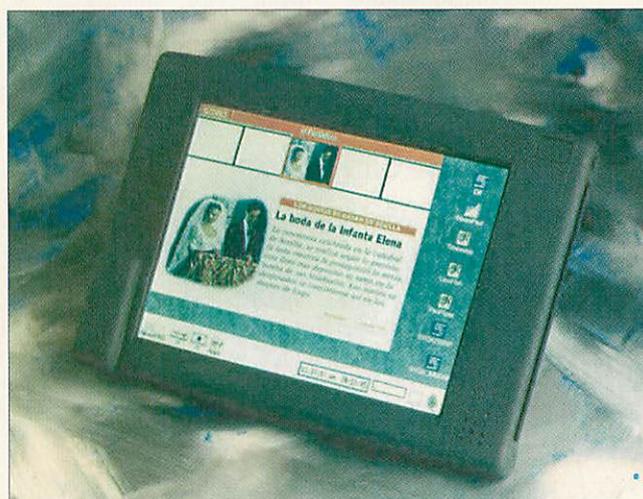
Full details of the joint venture can be found on Acorn's web site — point your browser at <http://www.acorn.co.uk>.

The new portable

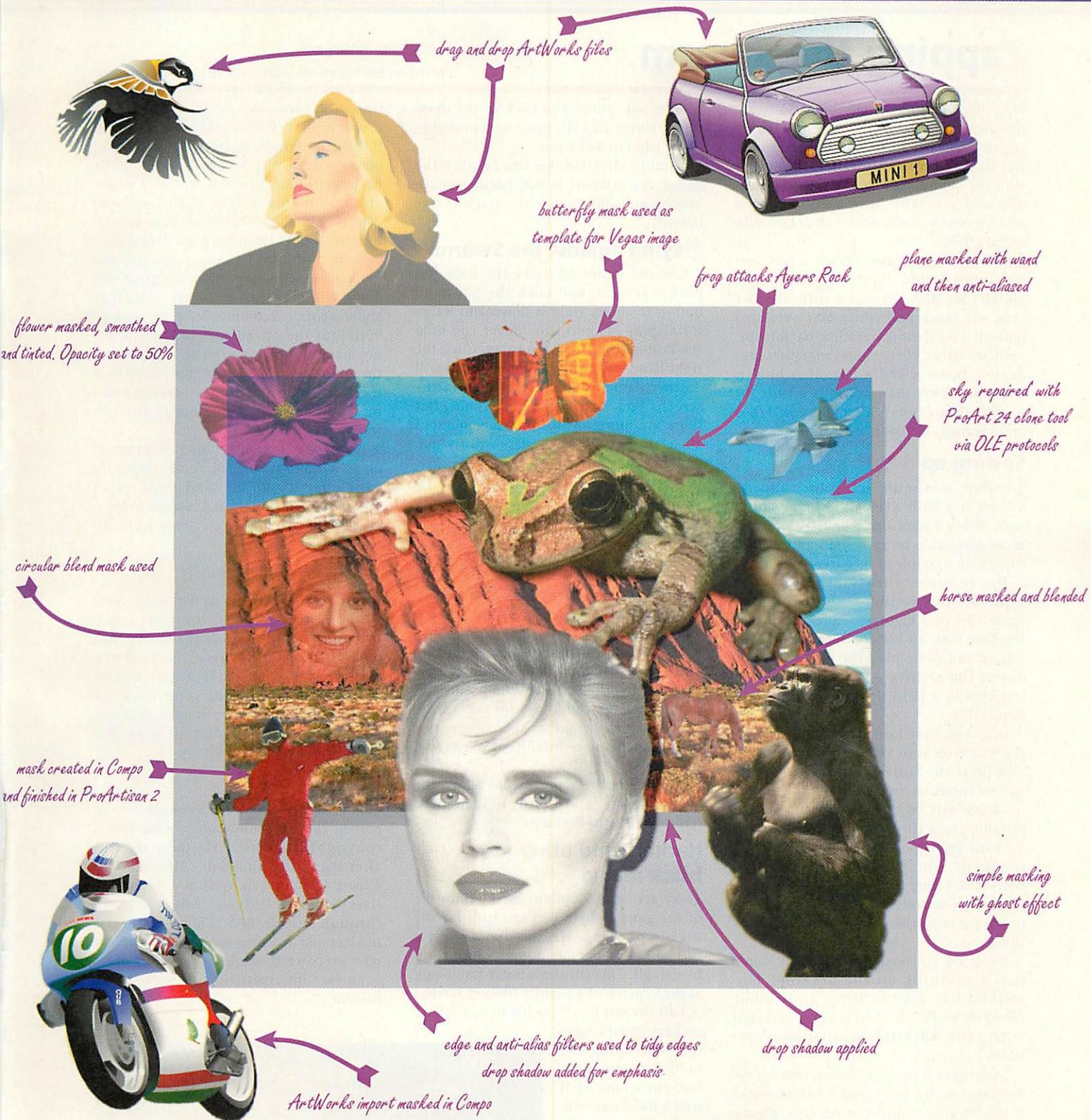
After months of speculation and some disinformation Acorn has finally announced the new portable (see *News pages*). This is great news for business users as the area of portable computing was sadly neglected by Acorn. The A4 was always under powered and over priced. The new portable code named Stork looks like a completely different bird. Again look at the Acorn web site for early details, though try <http://www.art.acorn.co.uk>

A RISC powered portable is the business travellers dream ticket. No more power hungry Pentium or 486 processors draining your battery on power up but a low power consumption RISC 7500 chip at its heart. The first commuter on the 06:30 from Surbiton to London to own one will be the envy of all those around them whose laptop PCs are beeping and

giving dire warnings about the advisability of saving before the battery finally expires. Still we will have to wait and see if this revitalises the area of portable computing and what effect it has on this page. Let me know.



Composition



£169.95 inc VAT (P&P free)

Special offer price of £85 for ProArtisan 24 owners

Introductory offer - £99.95 for users of other art packages

CLARES
MICRO SUPPLIES

98 MIDDLEWICH ROAD, RUDHEATH, NORTHWICH, CHESHIRE CW9 7DA
TEL: 01606 48511 FAX: 01606 48512 email: sales@clares.demon.co.uk



Zapping the swarm

Matthew Bloch presents a new version of an old favourite

WAY back in 1987, Broderbund Software released a game called *Crystal Quest* which was rather fun to play. The idea was to move your ship round the screen with the mouse, pick up crystals, zap baddies and generally have a groovy time. And, of course, there were one or two silly sound effects.

Nearly 10 years later, there's a new version called *Swarm*. Written in about eight months for RISC OS, it's a little flashier than the black and white Mac version I played. You'll find parallax backdrops, particles flying everywhere, smoother animation, bonuses and a few other hidden features. I'd say that *Swarm* is a little bit tougher than *Crystal Quest*, but you'll find more bonuses available in *Swarm*.

Setting up

The bare minimum setup for running *Swarm* is a 2Mb RISC OS 3.11 machine with either a hard drive or HD floppy. A more preferable setup is 4Mb and a hard drive with a couple of meg free.

Due to space restrictions, I've had to distribute this version with the original sprite files in a highly compressed format together with an installation utility. This means you can't play the game straight out of the archive - it will need to be installed to a hard drive or high-density floppy disc.

Once you have loaded !*SwarmInst*, drop the star icon into the destination folder and press the Install button. The game will be copied across, and then the graphics files will be converted. If you are installing to a HD floppy, or want to save on hard drive space, you can opt to have the sprites compressed. Note that this takes a *very long time indeed* - we're talking twenty minutes - so you might want to have a race with Windows 95 or something.

While the conversion is going on, don't touch anything on the desktop! The method I've used is fairly grotty, but seems to work OK. You'll get a message telling you when the installation is finished.

Sometimes if the installation fails for no good reason, try again and it might work. If you've any problems with this, please get in touch with me - contact address on the disc help file. You can install over a previous version if it was only partially done - it will carry on where it left off.

Owners of 2Mb machines will probably need to clear the memory out before installing or running *Swarm* (1400k is needed), sorry about this, but it needs lots of memory to work. The game will not load some of the more exotic sounds if there is only a little memory available, and will warn you when the game loads. If *Swarm* cannot load any of the graphics

files, it will dump you back in the desktop. Owners of 1Mb machines probably know what to do by now.

Double-click on !*Swarm* to play the game, !*SwarmInst* is not needed again unless you want to alter the graphics (see below).

Playing against the Swarm

Use the mouse to move the little jet-packer around, and click the left-hand button to shoot. Hold it down and let go for a spray of shots, the longer you hold the button, the larger the spray. Click the right-hand button for a bomb, which will destroy damned near everything on the screen. You start with four bombs, but there are more to pick up. As you shoot aliens, little yellow cylinders will fly out. Pick them up and you can get:

- extra life
- extra bomb
- destroy all the aliens on the screen
- remove all the mines

Big crystals occasionally pop out - don't shoot them - they're worth a lot of points if you can catch them. Lots of little surprises happen on later levels just to keep you on your toes.

To succeed, you'll need to keep moving and firing all the time. If you're surrounded by aliens, use a bomb and you should pick up loads of tokens very easily. Getting stuck in one of the corners is a bad idea: the more intelligent aliens will nail you.

Tab freezes the game, Escape aborts the current game, and Control-Escape will return you to the desktop.

Hackery and other black magic

There are several options in the !*Run* file of the game, where you can turn off the backdrop, change the speed and select a special fast frame rate option - turned on by default. This ensures a faster frame rate at the expense of a slightly flickery screen.

Edit the last line !*Run* file to suit. ARM2 owners should have the nobackdrop and noflicker options set, but the game still won't work too well. It should manage okay on anything else, but you will get a substantial speed increase from turning off the backdrop.

Potential problems

I hope I've now ironed out any serious (crashing) problems, but if you

find any, please let me know and I can probably fix it very quickly. In particular, if the game freezes up just after you shoot, please scream very loudly. It took me the best part of six hours to devise a work-around for this one! Also, the collision detection is a bit dodgy around the generators, but it does err in the player's favour.

Owners of Risc PCs should note that the mode module included with the game will drive the monitor at 100Hz, which is above Acorn's recommended maximum of 90Hz (for the AKF60 anyway). If you are not happy with this, you should change the appropriate line in the !*Run* file to load the 90Hz mode module. This one has a distorted display, which isn't nearly as much fun.

If you have trouble running the program on an A7000 with uncompressed sprites try reinstalling it with the compressed sprites option switched on. It should then work.

If, when loading, an error pops up which starts with:

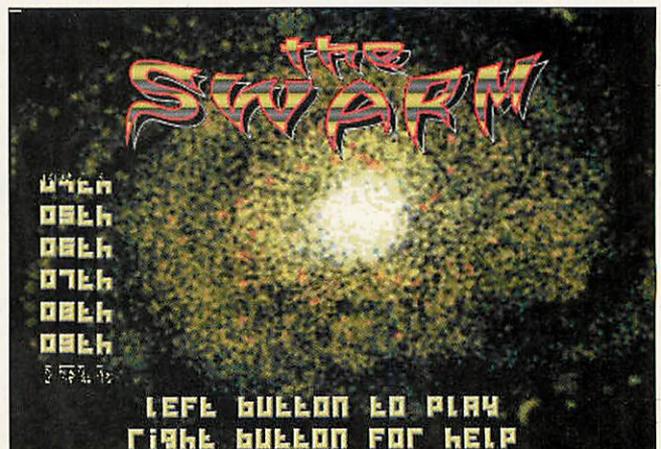
```
*** assertion failed
```

it's either due to a missing file in the game - caused, for example, by incorrect installation - or by the game not having enough memory to load up all of its resources. Note that some sounds might not be loaded (and parts of the game might be silent) if you don't have enough memory, but the graphics files must all be present for the game to work properly.

Updates

This version was released by *Acorn User* as part of the PD promotion scheme and is copyright IDG Media for three months after the publication date. After this, I'll release a major new version - minor bug fixes will come free and will be released through Arcade BBS. Those without a modem can write to me and I'll send the relevant patch through the post.

Further information is available in the help file.



TextPort

Ian Giblin

THIS is a drag-and-drop text file processor designed to simplify the business of moving text files between platforms, or between your own RISC OS system and the internal PC implementation or other systems.

There is also a command-line version inside the application (open with shift-double-click) which you can put in your library. Running the command-line TextPort with no parameters gives a usage summary.

The file TPORT/EXE is a DOS version of the command line program, using the same C source code as the RISC OS version except for the system-specific file operations. I haven't used this much but it has proved reliable during reasonable tests. The only functional difference is that it will not let you copy/move a file onto itself – the RISC OS version uses a temporary file. If you copy this to a DOS disc or partition you can rename it to TEXTPORT.EXE.

Explanation

Different operating systems use different characters to indicate the end-of-line (EOL) in text files. These characters are usually one or both of &OD and &OA – these are in hexadecimal.

These characters are more commonly known by their ASCII names, which are CR (for Carriage Return) and LF (for Line Feed) respectively. The standard usage is as follows:

System	End-of-line sequence
RISC OS	LF
Unix	LF
MS-DOS	CR LF
Apple Macs	CR

I have found that Mac users can't read my text files, and quite often I can't read theirs easily. This program helps here, as well as the more obvious uses of moving files around on your own machine.

Usage in the RISC OS desktop

Dropping any file on to the TextPort icon will open a dialogue box where you can set the type of line feeds you want to give the new file. The program assumes that you want to turn foreign files into Acorn format, and Acorn files into PC format.

There is one other option: Strip trailing spaces which will remove any spaces from the end of the lines. Since this is a text file processor, the file type of the output file will always be set to Text so you can double-click on it to load it.

Warning

If, like me, you usually can't be bothered to shut down your PC emulator or co-processor card, you should be aware that you may confuse the PC system by writing to a drive which it thinks it has seen.

Try to use a floppy to transfer files to DOS, even inside your Risc PC and remember to dismount the disc after writing to it. This can be done without freezing the PC component and is usually the safest method.

If, like me, you can't even be bothered to do that, then at least set up a very small (say 4Mb) D: drive for your PC and never write to the C: drive while IPC is running, even if the window is closed.

Regular items

- Run the Risc includes the first part of Mike Cook spinning LED disc.
- INFO contains a plethora of demos, utilities and applications to keep you busy.
- Wimp C is now developing a program which displays a window and puts data into it.
- There's also an update of last month's DiscTree program which fixes a small bug.

Disc information

THE software on this disc has been compressed using *ArcFS 2* from VTi. Unlike on many previous discs, these are straightforward archives which are opened by running a copy of *ArcFS* and double-clicking on the archive to open it. There is a copy of *ArcFS* on the disc.

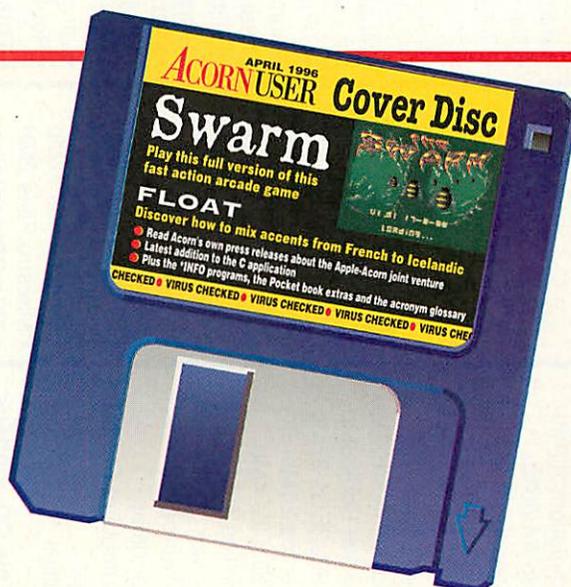
Most software will run straight from the archive, but some programs may need to be copied out of the archive before being run, uncompressing them in the process. Any program that saves a file to disc, for instance, will be unable to do so into the archives on the disc.

Faulty disc?

If your disc is faulty, test whether it will verify by clicking with Menu on the floppy drive icon and choosing Verify.

If it fails to verify or is physically damaged you should return it to *TIB, TIB House, 11 Edward Street, Bradford, Yorkshire BD4 7BH*. If it verifies successfully return it to the *Acorn User* editorial office at the usual address

The *Acorn User* cover disc has been checked for viruses using *Killer* version 2.204 from Pineapple Software.



PDCD-1

Contents List

- Animations 17Mb
- Clip Art 50Mb
- Coconizers 26Mb
- Demos 10Mb
- Education 12Mb
- Red Dwarf 7Mb
- Music Files 102Mb
- Pocket Book 8Mb
- GIF/JPEGs 37Mb
- Games 20Mb
- MIDI files 4Mb
- Utilities 48Mb
- Altway
- Powerbase
- Earthmap
- Gutenberg Project
- TeX
- Sillies

• This CD contains a total of 493Mb

£25
Inclusive

PDCD-2

Contents List

- Animations 23Mb
- Clip Art 31Mb
- Books 3Mb
- Demos 15Mb
- Education 5Mb
- Fractals 11Mb
- Strackers 71Mb
- Comm Demos 7Mb
- GIF/JPEGs 73Mb
- Games 12Mb
- Samples 28Mb
- Utilities 21Mb
- Morphs 5Mb
- Raytraced Files 2Mb
- PC Files 2Mb
- Sillies 6Mb
- Symphonies 77Mb
- Maestro Files 2Mb

• This CD contains a total of 404Mb

£25
Inclusive

PDCD-3

Contents List

- Animations 4Mb
- Clip Art 26Mb
- Comms 1Mb
- Demos 10Mb
- Education 15Mb
- FLI Movies 8Mb
- Music 59Mb
- Pocket Book 22Mb
- GIF/JPEGs 77Mb
- Games 26Mb
- Internet 8Mb
- Utilities 43Mb
- Morphs 5Mb
- Red Dwarf Replay Movies 253Mb
- Magazines 5Mb
- Languages 25Mb
- Replay Movies 7Mb

• This CD contains a total of 404Mb

* Please note that the *Replay Movies* on this CD require either a quad speed CD drive or copying to a hard drive to play smoothly.

£25
Inclusive

PDCD Discounts

Any two together deduct £5

All three together deduct £10

Prima

The primary font by

Tony Nash

Six weights for the inclusive price of £20



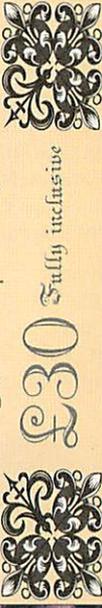
Borders with a frame kit

plus

7 weights of *Skeodore*

£30

Fully inclusive



Merlin

The Magic of Raytracing

EVOLUTIONARY COMPUTING

£80

Plus VAT

Full version Single User

Merlin Site License £470

Merlin Demo Disc £1.00

All prices fully inclusive

Dealer discounts available

Merlin@Datafile.demon.co.uk

Gothic & Medieval Fonts and Decoration

* pack Two *



£40

Fully inclusive



THE Datafile 71 Anson Rd, Locking
Weston-Super-Mare, Avon, BS24 7DQ



Tel/fax 01934 823005

email: Sales@Datafile.demon.co.uk

* Telesales and Mail Order ONLY *



The wizards of Oz

If you want a crystal ball reading on the future of Acorn UK, you need look no further than Acorn Australia, as Mark Moxon found out when he visited Acorn down under

Image is everything, and if we Poms are to be honest, we'd have to admit that our opinion of Australia is based more on what we see in *Neighbours* and *Home and Away* than actual hands-on experience. Most British people think that life on the other side of the world is all about beaches, barbecues, beer and boomerangs, but not many realise that Australia is considerably ahead of the UK when it comes to technology.

For example, the Internet is really big in Australia, as it's an easy and cheap way to communicate over such a vast continent. Electronic banking is highly advanced: you can withdraw cash from any shop that accepts your bank card, so there's no more having to leave the pub when you run out of money, only to find that the hole in the wall is empty.

A computerised national lottery has been around for years, and there are so many electronic gambling machines that gambling addiction is now a serious social problem. Speed cameras have been catching fast drivers out here for much longer than in the UK, and mobile phones are everywhere. As a result, the general awareness of technology is much higher in Australia than in a lot of other Western countries.

This is exactly the sort of society that suits Acorn's sales philosophy. People want the latest technology, and, as any Acorn fan knows, that's just what Acorn provides. There's no language barrier

between Australia and the UK, the trade agreement is well-defined, and the education systems are not dissimilar, so Australia is the logical place for Acorn to be selling its products.

Acorn in Australia

Acorn Australia has been in business since Acorn UK bought the Australian company Barson Computers in June 1990. Before then, the BBC micro had proved very pop-

processor. Then came Acorn's change to RISC technology in 1987, and instead of pushing the message that RISC machines were better for schools, the Australian dealers stuck to selling Beebs to schools that wanted them, which enabled Apple to take over and become the market leader in Australian schools.

'Acorn moved into Australia because we realised the changeover to RISC technology wasn't being handled in the right way,' says Laurence Hardwick, National Product Manager of Acorn Australia.

'By the launch of the A3000 - which happened in Australia 12 hours before it did in the UK - we'd changed the direction of the sales and marketing of Acorn machines.'

Laurence has been with Acorn for a very long time now: he was part of the original staff back in the heady days of Atoms and Beebs, he's sixth on the Acorn payroll, and he was the engineer responsible for designing the Econet network system. He's even demonstrated Acorns to the Queen when she made the gener-

ous gift of two Econet systems to India back in the '80s. Times have changed quite a bit since then.

Direct selling

Acorn UK went through a serious strategy change when it announced the creation of a direct sales system where schools would buy directly from Acorn and its chosen agents. Just as Australia is ahead in the



Acorn Australia

ular in schools in Western Australia, the state that covers the whole western half of the continent, and Tasmania, the island state off the south-east coast of the mainland. The state governments decreed in the early 1980s that schools could only buy BBC micros. Back then Acorn had a serious portion of the market, and most schools used either the Beeb or the Apple IIe, which happened to use the same

technology game, Acorn Australia has been ahead by selling direct for years.

The company has two main offices. Head office is in Collingwood, Melbourne, on the eastern side of the south coast, and there's a regional office in Parramatta, Sydney, about a quarter of the way up the east coast. The offices aren't nearly as large as the Acorn Group's head office in Cambridge – the total head count in Australia is around 16 – but in terms of what has been achieved, a little goes a long way.

'We've been selling Acorn products direct since 1990 in New South Wales, and 1991 in Victoria,' explains Shane Wharton, National Sales Manager for the company. 'We've also had Acorn in Education Centres (AECs) for longer than in the UK, although Australian AECs are more like the UK's Acorn Agents in that they act as dealers not just advisory services.

'We've got a catalogue of 1,678 products that we sell direct, with most of them being imported from companies in the UK. Pricing can be a bit of a nightmare: we can't stick to a guaranteed retail price, because it fluctuates depending on the exchange rates. It makes keeping the catalogue up to date quite a challenge, but we manage fine.'

Compared to the number of Acorn third party products in the UK there aren't many native Australian Acorn products, but there are still some important local packages. Acorn Australia's market is wholly educational, so there are, for example, clip art packages based on Australian life and geography, and a number of Antipodean multimedia presentations.

One interesting product is the state font: each state has its own particular font it recommends for use in teaching children to read and write, and these have been recreated for the Acorn range. There are also a number of authors who have been



Laurence Hardwick – National Product Manager

successful in selling their products to UK companies: 4Mation is a good example of a UK company with a lot of Australian contacts.

However Acorn Australia's catalogue makes familiar reading, with companies like Computer Concepts, Sherston, 4Mation, Longman Logotron and so on filling the range. There are more similarities between the UK and Australian education systems than between Australia and America; Australian spelling is the

same as English (though there are some interesting Americanisms: the Labor Party, for example) and UK packages fit into the curriculum here as well as they do back home.

The sales team

Not surprisingly for a sales and marketing company, the sales team is a key part of the setup, but it's not just a case of blindly ringing up schools and giving them the hard sell. The members of the sales team have to know about every product they sell, which means getting familiar with hundreds and hundreds of programs, support packs, and so on. That sales are on the increase is a credit to the jack-of-all-trades set up in sales.

'We're much closer to the product range than Acorn UK,' says Laurence. 'Our sales team understands how the products fit into the curriculum, and because you can't buy products from mail order companies in the same way

that you can in the UK, we have to push our sales message hard.'

The sales push is working. A survey in July 1993 made by Griffin University in Queensland showed that Acorns were used in 22 per cent of Australian schools and 42 per cent of New Zealand schools, with big successes in Tasmania (where 90 per cent of schools used Acorns) and Western Australia (60 per cent). Add in the fact that Acorn Australia's sales were up 40 per cent in 1994, and things look good, but it's not all plain sailing.

'Although we have good market penetration in Australia,' says Laurence, 'the population is very small. It's a continual battle to survive on selling machines to just 10,000 schools. To put it into perspective, say you wanted to sell CD-ROMs to schools in the UK, but only 20 per cent of schools had CD-ROM drives, your potential market would still be larger than our entire market in Australia.'

Not surprisingly, the sales team is busy, and spends most of its time on the road. Schools need that personal touch, but whereas it's easy enough to travel around the British Isles, in a country the size of Australia – which is as big as the United States – you have to treat it totally differently. When it takes about a week to drive



The Melbourne office

from Sydney to Perth, you can't support the whole country from just two offices, so the AECs act like dealers to their local areas.

'Without sales, we'd have nothing to support,' says Shane, 'so that's a really vital part of the process. The combination of dealers and direct sales works well, and is the only real way of selling to such a vast country.'

Head office

There are two sales forces, one in each office, but the company's main activities centre on the Melbourne office, where there is also the central technical support desk, the distribution centre for the whole country, the service department, and the accounting office, not to mention most of the management team.

The Melbourne office building is large, and anyone who saw Acorn UK's offices at Histon will recognise the modernist glass frontage and green logo. One of the reasons that the Melbourne office is so big is to house a complete warehouse for holding and distributing stock through the direct sales channel. It means Acorn Australia is already a one-stop shop for education, an aim that Acorn UK has stated it has for back home.

Technical support is a vital part of the equation, an area that is proving challenging in Acorn UK as it shifts staff around to cope with the direct sales system.

'We get asked about using products in the classroom, not about circuit diagrams for boards or hardcore programming techniques,' says Laurence. 'The emphasis is on practical application of computers, not the technical side. Our customers are teachers, not home enthusiasts, which means our support focuses on solving their problems and getting the system working, rather than just providing straight technical information.'

Therein lies a big difference between the UK and Australian markets, but it's one that Acorn UK will have to learn to cope with. Acorn's customers are teachers, and if Acorn sells direct, it has to support teachers' queries. Previously most technical queries to Acorn UK were from home users or dealers: teachers tended to go to their local dealers. In Australia they tend to go straight to the company that makes the machines.

The difference down under

The customers aren't the only difference between the UK market and Australia. Acorn has always been based heavily round the school year, so in the UK the Acorn market becomes markedly quiet in the summer months – the cause of a few third party liquidations over the years – and picks up towards the start of the school year in late August and September.

The same applies to Australia, but the school year goes from January to December, and it's split into either three terms or four semesters, depending on which state you're in.

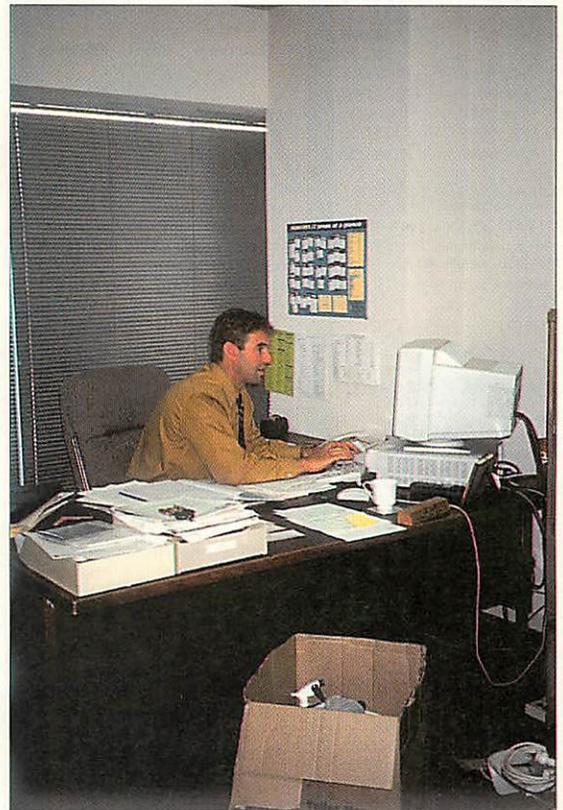
This means that at the start of the year, when the UK market is gearing up for the new year with BETT and the start of the Easter term, the Australian schools are on their summer holidays.

Conversely, when the UK schools are on their summer holidays, Australian kids are beavering away through the winter semester.

Acorn World, at the end of October and the venue for the launch of a large number of new products, appears half way through

the last semester of the school year, too late for schools to use products until the next school year.

The time difference between the UK and Australia is also crucial. Melbourne, for example, can be up to 11 hours ahead of the UK (depending on daylight saving time), which makes communication diffi-



Ian Davies – Sales Manager

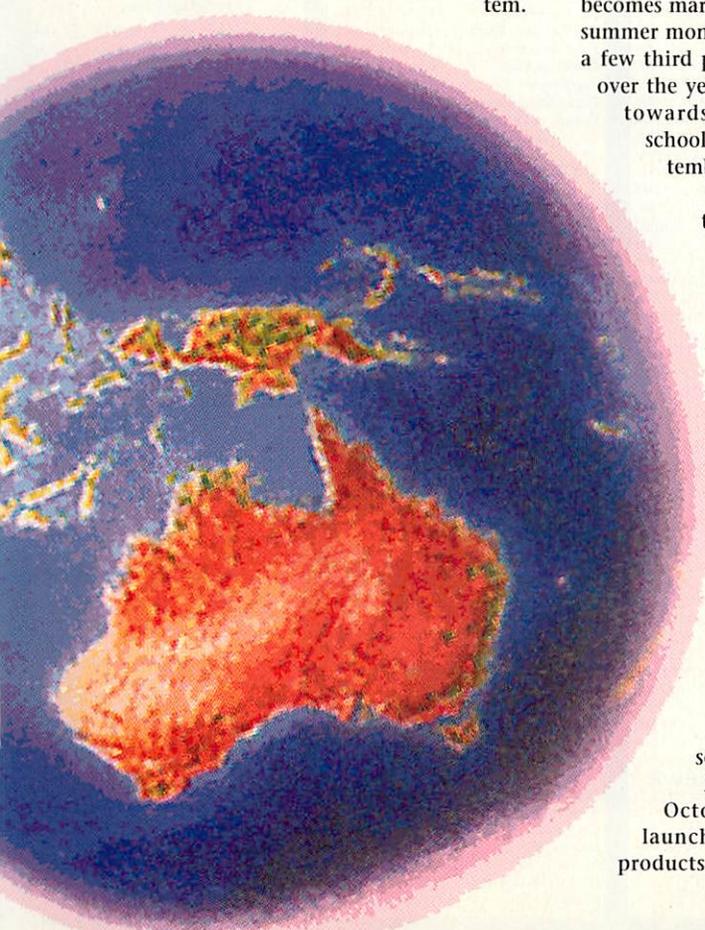
cult at the best of times, but even harder when work hours are nine to five. Fax and e-mail are a godsend, but you'll often see Laurence having to ring UK companies from home to get answers to more esoteric technical questions.

Of course, this doesn't just apply to contacting third parties, but also to contacting Acorn UK, so it's no wonder Acorn Australia feels more like an independent company than just an international branch of the mother company.

Online Media is also active in Australia – on-line information is a real solution to the problem of communication over a huge distance – but it's all dealt with by the same company.

Laurence sums it up well: 'In the end, despite being a company which is a tenth of the size of Acorn UK, with a tenth of the number of dealers, trying to sell ten times as many products to a country that is ten times the size, we do well. It's a daunting task, but one we approach with enthusiasm.'

And that's fair dinkum, as they say round these parts.



RiscPC + Upgrades

All RiscPC's & A7000's include 1yr on-site maintenance.

RiscPC 600(arm610)
4M/HD425 14" mon. £1148.00e

RiscPC 700(arm710)
5M/HD425 14" mon. £1360.00e
10M/HD850 14" mon. £1692.00e

For 17" AKF90 monitor Add£278.00
For CDrom Drive 2x Add£111.00
For CDrom Drive 4x Add£129.00

All Computers are built and tested before dispatch with printers and software purchased installed as required at no additional cost

486-SX-33 PC Upgrade £199.00d
486-DX2-66 PC Upgrade £249.00d
486-DX4-100 PC Upgrade £299.00d

Deduct £100 off PC upgrades when purchased with RiscPC

PC Exchange £25.00a
Windows 3.1 + DOS 6.22 £65.00a
Access+ Card £99.00b
Arm710 upgrade £125.00b
Movie Magic £237.00c
Second Slice £99.00d
Sound Card £59.00b
RiscPC 4Mb RAM £89.00c
RiscPC 8Mb RAM £149.00c
RiscPC 16Mb RAM £259.00c
RiscPC 1Mb VRAM £129.00c
RiscPC 2Mb VRAM £199.00c

Archimedes Computers

A7000 (1.6 Floppy Disc, 2 or 4 mb expandable to 130Mb ram, Arm 7500 AKF60 M/S Mon, 425Mb HD, on site 12 months warranty)
2M/HD425 14" mon. £799.00e
4M/HD425 14" mon. £875.00e
For CDrom Drive Add £111.00

Portable Computers

A4 4m 80Hard Disc £1149.00d
(1.6 Floppy Disc, 4Mb RAM, 80Mb HD, LCD Screen, PC Emulator)

Pocket Book 2 (256k) £205.00c
Pocket Book 2 (1MB) £285.00c

A-Link £42.51b
M-Link £64.80b
PC-Link + £68.00b
Parallel Link £24.28a
Power Supply £12.72b
Flash SSD 128k £29.74a
Flash SSD 1MB £102.00c

Hardware Upgrades

Colour Card Gold £189.00c
Eagle M2 + Eidos' £315.00c
Lark Midi Sound-Sa. £149.00c
Midi Max £66.00c
PC Card 386 (for 3020/4000) £49.00d
Risc OS Upgrade Chips £30.00c
Scanlight 256 8bit £139.00c
Scanlight 256 16bit £129.00c
Scanlight 256 Video £189.00c
SCSI 8bit £81.00c
SCSI 16bit £81.00c
SCSI 2 32bit £161.00c
TV Tuner £85.00c
TV Tuner + Teletext £151.00c

Data Storage

IDE 2.5" 270mb IBM £129.00c
540mb IBM £249.00c
IDE 3.5" 210 mb Conner £99.00c
1.6 gb Maxtor £249.00c
SCSI 2 3.5" 544 Meg Fujitsu £169.00c
1 Gb 10ms IBM £249.00c
IDE CD Tray Internal
Panasonic Quadpro £139.00c
Goldstar Quad £129.00c
Goldstar 8 speed £149.00c
SCSI CD Tray Quad Internal
Pioneer XM361E £259.00c
Toshiba DR-U124X £279.00c
SCSI CD Caddy Quad Internal
Toshiba XM-3501E £259.00c

Panasonic PD System

4x speed CD-ROM drive
850 MB Optical Disc Drive
Ext. including cartridge. £488.00d

Memory Upgrades

A4001 1-2mb £45.00b
A3000 1-2mb £55.00b
A3000 1-4mb £119.00b
A3010 1-2mb £45.00b
A3010 2-4mb £99.00b
A3010 1-4mb £140.00c
A3020 / A4000 2-4mb £85.00b
A5000 2-4mb £85.00b

All Upgrades fitted free if ordered with Computer else £15.00

(Mail Order Tel: 01924 254800)

Monitors

Autoscan 1438 (AKF50) £249.00d
Autoscan 1450 (AKF60) £199.00d
Autoscan 1782 (AKF85) £TBA

Printers

Canon
BJ-10sx (black) £169.00d
BJ-30 (black) £195.00d
BJ-70 (colour) £275.00d
BJ-200ex (black) £189.00d
BJC-4010 (colour) £265.00d
BJC-610 (colour) £369.00d

Citizen
PRINTiva 600c (colour) £349.00d

Epson
Stylus Col 2 (colour) £299.00d

Hewlett Packard
DeskJet 600 (Black) £199.00d
DeskJet 660 (colour) £299.00d

Calligraph
A4 1200 Laser (black) £979.00e

Printer Inks

INKJET REFILLS ARE AN ECONOMICAL WAY OF RE-CHARGING YOUR EXISTING CARTRIDGE

All inks come complete with gloves, syringe and easy to use instructions. Single 20ml Any Colour £5.70a
Twin 2x20ml Black £10.50a
Bulk 125ml Any Colour £20.00b

'CartridgeMate' A new and

easy to use cartridge refill system for HP 51626A high cap. cartridges

A refill system with no mess

Complies: CartridgeMate & 2 x 40ml Ink Tanks £30.00b
Ink Tank 2 x 40ml £18.00a

HP51626A Tri-Colour Cartridge refill kit 3 x 3 colour refills Comprises:

C/M & Y Inks, Cap Retaining Clip Cartridge Cap Remover £30.00a

We also carry a large stock of inkjet cartridges and ribbons

EP-L Toner for LBP-4 £59.00c
EP-S Toner for LBP-8 £69.00c

Printable Items

Colour'n Wear (2 white Baseball Caps + 3 transfer papers) £9.00b

Print'n Wear (2 white T Shirts + 4 transfer papers) £11.50b

Design & Print Mouse Mat £4.25a

Design & Print Business Cards 10x8 A4 150g Perforated £4.50a

Col InkJet matt photo white paper 25 sheets x 120gms £5.00b

Monochrome InkJet brilliant white paper 100 sheets x 90gms £2.50b

CD Software

Ancient Lands (M/S) £39.00b
ArtWorks (CC) £135.00c
ArtWorks Clipart I (CC) £17.00a
ArtWorks Clipart II (CC) £17.00a
Being a Scientist (Anglia) £37.00c
Bitfolio Ed7 (Lino) £75.00c
Cars-Maths in Motion (Cams) £89.00a
Dangerous Creatures (M/S) £39.00a
Dinosaurs (M/S) £39.00a
Castles (Anglia) £37.00a
Guardians of the Greenwood £46.00a
Granny's Garden (4Mat) £30.00a
Hutchinson M/Media £39.00a
Industrial Revolution (Anglia) £80.00a
Inventions (Anglia) £37.00a
Kingfisher Childrens Micropedia £79.00b
Langsdale (CCS) £89.00b
Musical Instruments (M/S) £39.00a
Mysteries of Nature (Anglia) TBA
Naughty Stories V1&2 (Sher) £79.00b
Oxford Reading Tree Stage 2
Talking Stories (Sher) £36.00b
The Way Things Work (DK) TBA
PB Bear (DK) £37.00a
PhotoBase 1920s,30s,40s,50s,60s
Victorians, Landscapes Each (LL) £46.00a
RiscDisc (Uniqueway) £12.50a
RiscDisc 2 (Uniqueway) £20.00a

Application Software

Advance (Acorn) £99.00c



Davyn Computer Services
Acorn Technology Centre

20/20 Finance

Clearly the Best Choice
(based on 20% deposit and 0% finance over 20 month period)
(Acorn Items Only)

20 months

Personal finance is available to qualifying purchases.
Credit subject to status.
Written quotation on request.
APR 0%

Advantage (LL) £46.00a
ANT internet (LL) £99.00b
Ancestry II (Minerva) £75.00b
Arefax (David P) 28.50a
ArtWorks (CC) £89.00c
Card Shop (Clares) £19.50a
Celebration (Clares) £27.00a
Complete Animator (Iota) £79.50c
Composition (Clares) £129.00c
Compression (CC) £27.50a
DataPower (Iota) £119.00c
Desktop Thesaurus (R Dev) £17.50a
Easy Font 3 (Fabis) £26.50a
Eidoscope (RiscPC only) (CC) £146.00b
Eureka 3 (LL) £89.00c
Formulix (CC) £60.00a
Font FX (Datatore) £9.50a
Frame-It 1 or 2 (Davyn) each £5.00a
Graphics Loaders (CC) £37.00a
Illusions (Clares) £39.00a
Image Animator (Iota) £46.00a
Image Bank (Irlam) £23.00a
Image FS (Alternative P) £34.95a
Image Outliner (Iota) £46.00a
Impression Publisher (CC) £109.00c
Impression Style (CC) £69.00c
InterTalk (Acorn) £79.00c
Knowledge Organiser 2 (Clare) £61.50a
Notate (LL) £53.00b
Pendown Etoiles (LL) £49.00c
Pendown Plus (LL) £69.00c
Personal Accounts (Apricote) £37.00b
PhotoDesk (Space Tech) £157.00c
Pinpoint (Longman) £89.00c
Pro Artisan 2 (Clares) £49.00a
Pro Artisan 24 (Clares) £125.00c
Prophet 2 Accounts (Apricote) £143.00c
Render Bender v2 (Clares) £39.00a
Replay Starter Kit (Acorn) £34.50b
Revelation ImagePro (LL) £119.00c
Rhapsody 3 (Clares) £79.00a
Rhythm Bed (Clares) £39.00a

RiscCad Professional

S/U (Davyn) £159.00c

Education £141.62c

Site Licence £495.00c

Serenade (Clares) £79.00a
ShapeFX (Datatore) £9.50a
Sibelius 6 (v3) (Sibe) £159.00d
Sibelius 7 Prof. (v3) (Sibe) £799.00d
Sibelius 7 Student (v3) (Sibe) £449.00d
SmArt (4Mation) £49.00a
SmArt Files (4Mation) each £14.50a
SmArt File Mod.Lang. (4Mation) £18.50a
Snippet (4Mation) £32.00a
Sound FX Maker (CIS) £34.00a
Termite Internet (DoggySoft) £76.00c
Titler (Clares) £79.00a
Topographer (Clares) £79.00a
Touch Type (Iota) £39.00b
Turbo Driver (CC) £43.00b

Education Software

10 out of 10 Full Range Each £15.00a
Dinosaurs, Driving Test, Early Essentials English, Ess.I.T., Ess.Maths, Ess.Science, French, German, Jr.Essentials, Math Algebra, Math Geometry, Maths Number, Math Statistics, Spelling,
+ buy 2 get 3rd FREE

Adventure Playground (Storm) £17.00a
Amazing Maths (CSH) £17.00a
Amazing Ollie (Storm) £13.50a
Arcventure I Romans (Sher) £32.00a
Arcventure II Egyptians (Sher) £32.00a
Arcventure III Vikings (Sher) £32.00a
Arcventure IV A Saxon (Sher) £TB.Aa
Around World 80 Days (Sher) £42.00a
Aztecs (Sher) £41.00a
Badger Trails (Sher) £41.00b
Body Wise (Sher) £41.00a
Balloons and Zoo (Topo) £18.00a
Book Store (ESM) £34.00a
Calabash Pirates (New) (Topo) £21.00a
Coffee (Storm) £25.00a
Connections (Sher) £29.00a
Crystal Rain Forrest (Sher) £41.00a
Darryl the Dragon (4Mat) £18.00a
DataGraph (Topo) £24.00a
Farm (Sher) £19.00a
First Logo (LL) £21.50a
First Page DTP (LL) £45.00a
Flossy The Frog (4Mat) £22.00a
Flight Path 9+ (Storm) £26.00a
Freddy Teddy (Topo) £12.00a
Freddy Teddy's Adv (Topo) £17.00a
Fun School 3/4 (5.5-7.4) each £12.00a

(Please Specify age group)

Granny's Garden (4Mat) £22.00a
Happy Life (CCS) £26.00c
James Pond running water £25.00a
Landmarks full range (LL) each £24.00a
Look Here Talking Topics (Sh) £52.00b
Magpie (LL) £50.00b
Maths Circus (4Mat) £25.00a
Naughty Stories V1 or 2 (Sher) £49.00b
Ollie Octopus Sk Pad (Storm) £13.50a
Oxford Reading Tree Stage 2
Talking Stories (Sher) £38.00b
MathsMania (Topo) £22.00a
More Talking Stories A (Sher) £38.00b
Music Box (New) (Topo) £29.00a
Number Tiles (Topo) £21.00a
Oxford Reading Tree Stage 3
Talking Stories (Sher) £38.00b
Oxford Talking Infant Atlas £18.00a
PinPoint Junior (LL) £26.00a
PlantWise (New) (Sher) £42.00a
Podd (ESM) £20.00b
Prime Mover (Minerva) £49.00a
Prime Solver (Minerva) £39.00a
Rosie & Jim Duck (Sher) £10.00a
Rosie & Jim Sneezes (Sher) £10.00a
ScreenTurtle (Topo) £29.00a
Sea Rescue (Sher) £26.00a
Sedlador Tales (Sher) £22.50a
The Spaniel (Storm) £17.50a
Smudge the Scientist (Storm) £36.00a
Space City (Sher) £26.00a
Splash (Sher) £19.00a
Stig of the Dump (Sher) £22.50a
Story Starts (Sher) £22.50a
Talking Clock (New) (Topo) £31.00a
Talking Animated Alphabet £27.00a
Talking Rhymes 1 (Topo) £21.00a
The Playground (Topo) £21.00a
The Puddle & Wardrobe (Topo) £18.00a
Time Detectives (Sher) £42.00a
TinyDraw/Logo (Topo) £21.00a
TinyPuzzle (Topo) £16.00a
Teddy Bear's Picnic (Sher) £26.00a
Voyage of Discovery (Sher) £32.50a
Worst Witch (Sher) £26.00a

Games Software

Alone in the Dark (Krisalis) £27.00a
Aries 4games (GamesWare) £15.00a
Big Bang (Psycore) £12.00a
BattleChess (Krisalis) £21.50a
Black Angel (4D) £24.00a
Burn Out (Oragan) £20.00a
Cannon Fodder (Krisalis) £19.50a
Chuck Rock (Krisalis) £8.50a
Cobalt Seed (TBA) £19.50a
Crystal Maze (Sher) £25.00a
Cyber Ape (TBA) £15.00a
Cyber Chess (4D) £24.00a
Darkwood (New) (Eclipse) £19.00a
Dune2 (Eclipse) £27.00a
Dune2 CD (Eclipse) £39.00a
Dungeon (4D) 2mb £24.00a
Empire Soccer (New) (Empire) £23.00a
Enter The Realm (4D) 2mb £18.00a
E-Type Jaguar 2 £26.00a
Fire & Ice £19.00a
FistLore (Mistry Software) TBA
Flashback (US Gold) £21.00a
F.T.T. (TBA) £19.00a
Global Effect (New) (Eclipse) £27.00a
Gods (Krisalis) £8.50a
Haunted House (4D) 2mb £19.00a
Heimdall (Krisalis) 2mb £21.00a
Heros Quest (Krisalis) £21.00a
James Pond (Krisalis) £8.50a
James Pond 2 RoboCod (G/W) £17.00a
James Pond running water £25.00a
Krisalis Collection (Krisalis) £22.00a
Lemmings (Krisalis) £18.50a
Lemmings Oh No More (Kris) £15.00a
Lemmings RiscPC (Krisalis) £21.00a
Lemmings 2 Tribes (Krisalis) £21.00a
Lotus Turbo 2 (Krisalis) £18.00a
Magnetoids (Oragan) £19.00a
Man United Europe (Kris) £8.50a
Populus (Krisalis) £22.00a

All Prices Exclude VAT

Revolver (Psycore) £12.00a
Real McCoy (4D) £21.00a
(UIM, Arcade Soccer, White Magic, Quazer)
Real McCoy 2 (4D) £21.00a
(Apocalypse, Holed Out, Olympics, Inertia)
Real McCoy 4 (4D) £21.00a
(Galactic Dm, Grievousbodily Arm, X-Fire, Cataclysm)
Saloon Cars Delux (4D) £23.00a
Scrabble (US Gold) £21.00a
SimCity (Krisalis) £24.00a
SimCity 2000 (Kris) A5000/PC £29.00a
Simon The Sorcerer (G/W) £29.00a
Simon The Sorcerer CD (G/W) £35.00a
Small (Virgo) £19.00a
Speedball (Krisalis) £20.00a
Spheres of Chaos (Matt) £19.00a
Spobbleoid Fantasy (4D) £23.00a
Starfighter 3000 (Fednet) £23.00a
Swiv (Krisalis) £8.50a
Time Machine (4D) £24.00a
Turbo Challenge 2 (Kris) £19.50a
Virtual Golf (4D) 2mb £24.00a
Virtual Golf augusta course (4D) £17.00a
GamesPad 2player (G/W) £28.00b

Special Offers

AMX mouse inc amx art £15.00b
AMX mouse inc stop press £15.00b
5.25 40t bare disc drive £15.00c
5.25 40t cased disc drive £35.00c
8bit User Analogue Interface £20.00b
Apple FS (Oragan) £39.00a
Armadaeus (Clares) £25.00a
Arcturus (Oragan) £12.00a
Boxing Manager (Krisalis) £8.50a
Cycloids (Soft42) £10.00a
Demons Lair (4D) £10.00a
Flight Sim Toolkit (Simis) £25.00b
Galactic Dm (4D) £10.00a
Guile (4D) £6.00a
High Rise Racing (Modus) £17.00a
Magic Pockets (Renegade) £13.00a
Quest for Gold (Krisalis) £8.50a
Sally & Wally (Oragan) £12.00a
Wavelength (G/W) £12.00a
Word Works (CC) £15.00a

How To Order

Cheques: should be made payable to **Davyn Computers**

Credit Cards: you may also pay by Visa, Delta, Euro, Switch, Electron, or Master Card. We normally make no charge for this, and take no payment until goods are ready for dispatch. We need the card holders address and telephone number, card number and issue number if any and the expiry date.

Carriage: charges are as follows
a Small £1.00
b Medium £2.00
c Medium Recorded £4.00
d Courier £9.00
e Courier Large £15.00

Official Orders: are welcome from UK education and government institutions (invoices are due for payment within 14 days and are subject to carriage and late payment charges).

VAT is not included: Zero rated items are marked 'vo'. UK customers please add 17.5% to all other prices including carriage.

Order Address: please send your orders to:

Davyn Computer Services 'The Workshop'
off Princess Street, Sandal, Wakefield, West Yorkshire, WF1 5NY

Opening Hours:
Monday 9.30 - 5.30
Tuesday 9.30 - 5.30
Wednesday 9.30 - 5.30
Thursday 9.30 - 7.30
Friday 9.30 - 7.30
Saturday 9.30 - 5.30

Terms: All products, prices and specifications are offered in good faith and are subject to change without notice. We Process all orders immediately, but suppliers do sometimes keep us waiting. Goods are guaranteed but are not supplied on approval. Returns and cancellations can only be accepted by prior agreement and there may be a restocking and administration charge. A full copy of our terms are available upon request.
E.&O.E 28-02-96

In foreign parts

Clive Semmens shows how you can get your accents right

European languages, and many others, use the same basic Roman alphabet as English, but most of them use various little marks in addition and, in some cases, even special characters. The general term *diacritical marks* or just *diacritics*, is used to cover all the varieties of marks. For really professional DTP, if you are printing international names and addresses, or text in foreign languages, you need to be able to produce these properly.

Most of the diacritics are accents and the term is often broadened to refer to them all. Printers may even apply it to whole combinations of letter and diacritic – in the days of metal type, they were usually made as single pieces. French, for example, uses à, â, ç, è, é, ê, ë, î, ô, û.

All these, and those for many other lan-

guages, can easily be typed on RISC OS computers, with no extra software at all. Later in this article I'll show you how, but this is fairly readily available information and I'm only repeating it for completeness. What we're looking at here is producing the diacritical marks used in other, generally less well known languages, such as Polish, Hungarian, Czech or Turkish, and not so straightforwardly supported by Acorn – or indeed Macs or PCs or anyone else. Acorn actually has the edge in this area, as it is much easier to hack the system to make it support them.

The languages supported without any hacking include Danish, Dutch, English, Faroese, Finnish, French, German, Icelandic, Irish, Italian, Norwegian, Portugese, Spanish and Swedish. These languages are covered by the Latin1 character set (see figure 1) which is the default. It's an International Standard, which not everybody sticks to, but Acorn do.

In theory, if you need Turkish, you should use the Latin3 charac-

ter set. The characters are there in Acorn fonts, but there's no simple way to access them in most software and not all third party fonts have them at all.

Even if the system were fully set up,

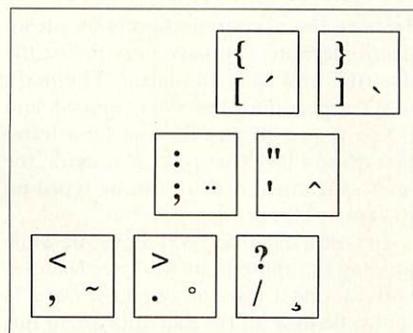


Figure 2: Use Alt to get the diacritics

you'd be stuck with the same character set at least for a whole document. You could use English together with any other language, but you couldn't have Danish and Turkish in the same document, or Hungarian (Latin2) with Danish or Turkish. Lists of international names and addresses would be out. This is the situation with quite a lot of software on several platforms: after all, it is an International Standard. But with a little judicious and perfectly legal hacking, we Acorn users can do better.

	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	@	P	`	p		'		°	À	Ð	à	ð	
1	!	1	A	Q	a	q	f	'	ı	±	Á	Ñ	á	ñ
2	"	2	B	R	b	r	ŵ	<	ç	²	Â	Ò	â	ò
3	#	3	C	S	c	s		>	£	³	Ã	Ó	ã	ó
4	\$	4	D	T	d	t		“	¤	´	Ä	Ô	ä	ô
5	%	5	E	U	e	u	Û	”	¥	µ	Å	Õ	å	õ
6	&	6	F	V	f	v	ÿ	„	¦	¶	Æ	Ö	æ	ö
7	'	7	G	W	g	w		–	§	·	Ç	×	ç	÷
8	(	8	H	X	h	x		—	¨	˙	È	Ø	è	ø
9	)	9	I	Y	i	y		–	©	ˆ	É	Ù	é	ù
A	*	:	J	Z	j	z		œ	ª	º	Ê	Ú	ê	ú
B	+	;	K	[	k	{		æ	«	»	Ë	Û	ë	û
C	,	<	L	\	l	|	...	†	¬	¼	Ï	Ü	ï	ü
D	-	=	M	]	m	}	™	‡	-	½	Í	Ý	í	ý
E	.	>	N	^	n	~	%	fi	®	¾	Î	Þ	î	þ
F	/	?	O	_	o		•	fl	-	¿	Ï	ß	ï	ÿ

Figure 1: The Latin1 character set

Character DF is the German Eszett (s-z, or double s).

Characters DE and FE are the Icelandic (or Faroese) Thorn – this is the letter used in Old English for the *th* sound in *the*, and sometimes misinterpreted as a Y – as in *Ye Olde Tea Shoppe*. The usual script used in England did make it look a bit more like a Y:.

Characters D0 and F0 are the Icelandic Eth – our unvoiced *th* as in *thick*.

Character FF is used in no language on earth as far as I know. Dutch has an i-j ligature which looks a bit like a y-umlaut in some fonts, but not in this one (Trinity). BS ISO-IEC 6937 says French and Welsh use it but my French and Welsh friends deny it vehemently.

Characters 5E and 7E are *asciicircum* (hat) and *asciitilde* (swung dash) respectively – not the same as *circumflex* and *tilde*.

Accent on mixing languages

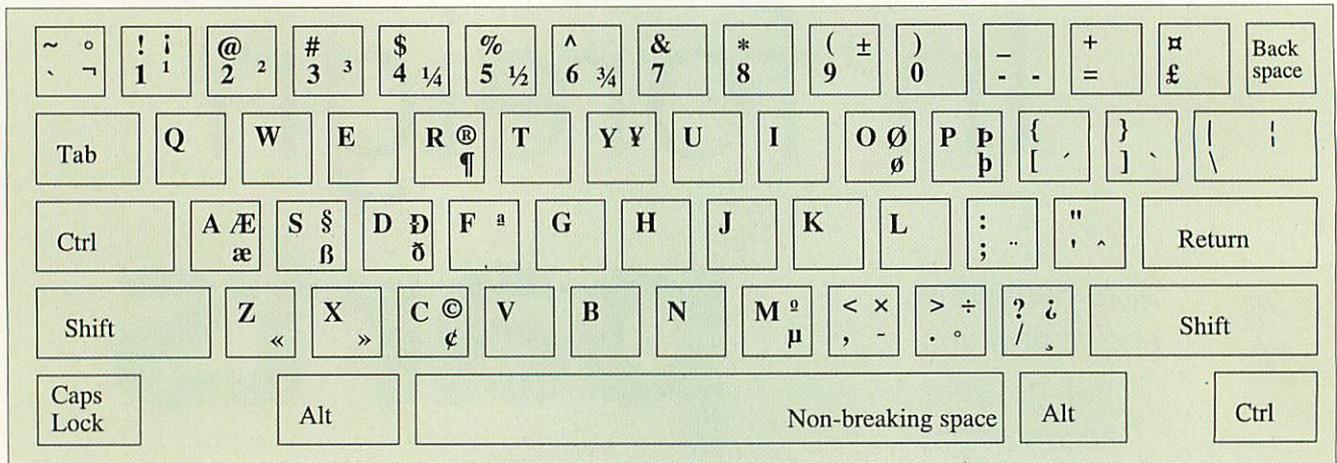


Figure 3: The standard RISC OS keyboard layout

Special characters on a RISC OS 3 keyboard – pre-Risc PC. Hold Alt, or Alt-Shift as appropriate, to get the characters on the right of each key. Risc PC owners have the corresponding diagram in their User Guide or Welcome Guide – the differences are few.

No hacking required

To type the accented characters on an Acorn machine, you have to type first the diacritic and then the letter. The mark won't appear until the letter is typed, and if you type a mark followed by a letter that doesn't take that particular mark, the mark is ignored. A mark can be typed on its own by typing a space after it.

To type a diacritic, hold down Alt while pressing the appropriate key – see Figure 2. Only a small part of the keyboard is shown because all the diacritics are in this area. The remainder of the special characters are also accessed using the Alt key, but of course they appear as soon as you type them. Figure 3 shows where they are.

Floating accents

To cope with several languages from different groups all at once, you can use floating accents. This means that each dia-

critic is treated as a character in its own right, and the font does not need to contain the combined letter-plus-accent characters at all.

Manual typewriters use this system, they can't even handle the 223 characters available in Latin1. On an accenting typewriter, when an accent is typed, the carriage doesn't advance, and the letter is then typed in the same location. The accent is positioned such that it appears correctly above the letter.

This is all very well for lower case letters and monospacing typewriters. In general, accents are omitted on upper case letters in typewritten work though some typewriters have an additional set of upper case accents, positioned higher.

Proportional spacing typewriters have a problem in the horizontal direction as well, and adopt a compromise positioning of the accents, but it isn't always very satisfactory.

RISC OS allows adjustment of the position of accents relative to their letters. It is possible to type some additional combinations by typing a bare accent (accent followed by a space), then the letter, and then adjusting their relative positions. However, there are still many combinations not possible using the Latin1 character set, and the adjustment process is a bit tedious if you have a lot of accents to do. Not all software implements this.

Using !Float

This is where the little hack comes in: Double-click on the !Float application and instead of the Latin1 character set you have a new set with all the diacritics as single characters – Figure 4 – you've lost all the combinations, of course. The keyboard changes too, giving access to the new characters as shown in Figure 5.

Lastly, !Float installs itself on the icon bar. This is specifically for the Impression

Diacritics' names

Although the diacritics are typed before the letter they apply to, the name is spoken the other way round: ü is called u-diaeresis for example. The names are as follows – the letter is only there to make the diacritic clearer:

à – grave (pronounced 'grarv')	
á – acute	â – circumflex
ã – tilde	ā – macron
ă – breve	ċ – dot
ä – diaeresis (umlaut in German)	
å – ring	ç – cedilla
ö – double acute (Hungarumlaut in PostScript)	
ą – ogonek	č – caron
ř – háček	

Special characters

Æ	æ	– ae ligature (all Scandinavian languages)
Đ		– eth (Croat, Lapp)
Ð	ð	– eth (Faroese, Icelandic)
ª	º	– feminine and masculine ordinal (French)
		– h stroke (Maltese)
		– kra (Greenlandic)
ı	ı	– dotless i (Turkish)
Ł	ł	– l stroke (Polish)
Ø	ø	– o stroke (Danish)
Œ	œ	– oe ligature (French)
ß		– sharp s, German double s, eszett
Þ	þ	– thorn (Icelandic)
		– t stroke

	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	@	P	`	p	⁴	'	°	—					κ
1	!	1	A	Q	a	q	f	'	i	±	`	¹	Æ	æ
2	"	2	B	R	b	r	,	<	ç	²	˘	®	Ð	ð
3	#	3	C	S	c	s	>	£	³	^	©	^a	ø	
4	\$	4	D	T	d	t	“	×	~	™	H	H	h	
5	%	5	E	U	e	u	”	¥	μ	-				ı
6	&	6	F	V	f	v	„	□	¶	˘	¬			
7	'	7	G	W	g	w	J	-	§	·	˘	ı		
8	(	8	H	X	h	x	—	÷	˘			Ł	ł	
9	)	9	I	Y	i	y	-	'				Ø	ø	
A	*	:	J	Z	j	z	“	”	°			Œ	œ	
B	+	;	K	[	k	{	«	»	˘			ß	ß	
C	,	<	L	\	l	|	... †	¼				P	p	
D	-	=	M	J	m	}	‡	½	˘			T	t	
E	.	>	N	^	n	~	%o	fi	¾	˘				
F	/	?	O	_	o	•	fl	ı	˘					-

Figure 4: The !Float character set

This character set also follows an International Standard (ISO-IEC 6937-1994) as far as it can. Lappish Eng and eng (EE and FE), Dutch IJ and ij ligatures (E6 and F6), Catalan L and l with centre dot (E7 and F7) and 1/8, 3/8, 5/8 and 7/8 (DC-DF) are not available in the Acorn base font although they are specified in this Standard. !Float positions the dots for the els.

Columns 8 and 9, undefined in the standard, provide room for some useful extra characters available in the Acorn base font, mostly in their standard Acorn positions.

6937 does not provide for comma-form cedillas or háčeks although it purports to cover the languages in which they are used. !Float provides them at 82, 90 and 91.

family, enabling them to have diacritics positioned very easily.

In Draw, all you can do is type the diacritics separately and move them into position manually. You have to type dotless 'i's as appropriate, which isn't necessary in Impression etc. as !Float will convert them for you (see below).

You have to quit !Float if you want to get back to the Latin1 character set and default keyboard.

!Float with the Impression family

To properly convert areas of diacritics mark the required section of text then *Save selected text* and drop the file on to the !Float icon on the icon bar. A *Drag icon* box will be produced, from which you will drag the file icon to drop back into your document, replacing the first text

You can process large chunks of text all at once, without even having to think about where all the diacritics are.

A complication is that !Float needs to know what font is being used, because the adjustments are different for different fonts. If you have diacritics in text in more than one font, you have to process each section separately. The *Save dialogue* has radio buttons for you to tell !Float which font you are using. You don't need to worry about embedded bits of text in other fonts if they don't have any diacritics.

You can do all the text in bulk with !Float set for the normal font, and then do the odd bits in other fonts separately. This is quicker, and !Float doesn't mind redoing things – a vital ability if you are to be able to change your mind about font choice.

The *Save choices* option on the icon bar menu allows you to retain your selection of font as default for future sessions. The only fonts handled on the cover disc ver-

³ Afrikaans	ê ë ö	¹ German	ä ö ü ß	² Romanian	â â ĩ ș ț
⁴ Albanian	ë ç	¹ Hungarian	á é í ó ö ú ü	¹ Samoan	ā ē ī ō ū
¹ Catalan	à ç è é í ĩ (L) ò ó ü ĩ ü	¹ Icelandic	æ á ð (Ð) é í ó ö ú þ (Þ)	³ Scots Gaelic	à è é i ò ó ù
¹ Croatian	č č (Č) š ž	² Irish	á é í ó ú	¹ Slovene	č š ž
¹ Czech	á č ě (Ě) é ě ě ě ů ř š ť (Ť) ú ů ý ž	² Italian	á è ì ò ù	¹ Spanish	á é í ñ ó ú ü
¹ Danish	æ å ø	³ Latvian	ā č ē ģ (Ģ) ģ ģ š ū ž	¹ Swedish	ä å ö
³ Dutch	ë	³ Lithuanian	ą č e ė į š ū ž	¹ Turkish	ç ğ ĩ (İ) i (ı) ö ş ü [â î û]
¹ Esperanto	ĉ ĝ ĥ ĥ ŝ ŭ	¹ Maltese	ċ ġ () ż	³ Welsh	â á è é ĩ ō ó ū ŵ ý
⁴ Estonian	ä õ	¹ Norwegian	æ å ø		
² Faroese	æ á ð (Ð) í ó ö ø ú ý	¹ Polish	ą ć e ł ń ó ś ź ż		
¹ Finnish	ä ü [ä ŷ]	² Portuguese	à á â ç é í ó		
¹ French	à â ç è é ê ë ĩ ò œ ü	³ (Latin America)	à á â ç è é ě ĩ í ò ó ö ü		

Table 1: Diacritics and special characters used in various languages

A characters in parentheses is the upper case version of the preceding character. Characters in square brackets are only used in words borrowed from other languages.

The accuracy of these lists is not guaranteed; some are more reliable than others. The superior numbers indicate estimated reliability than others. The superior numbers indicate estimated reliability, from ¹ (best) to ⁴ (worst). I would be very grateful for any corrections, or reliable information about other languages.

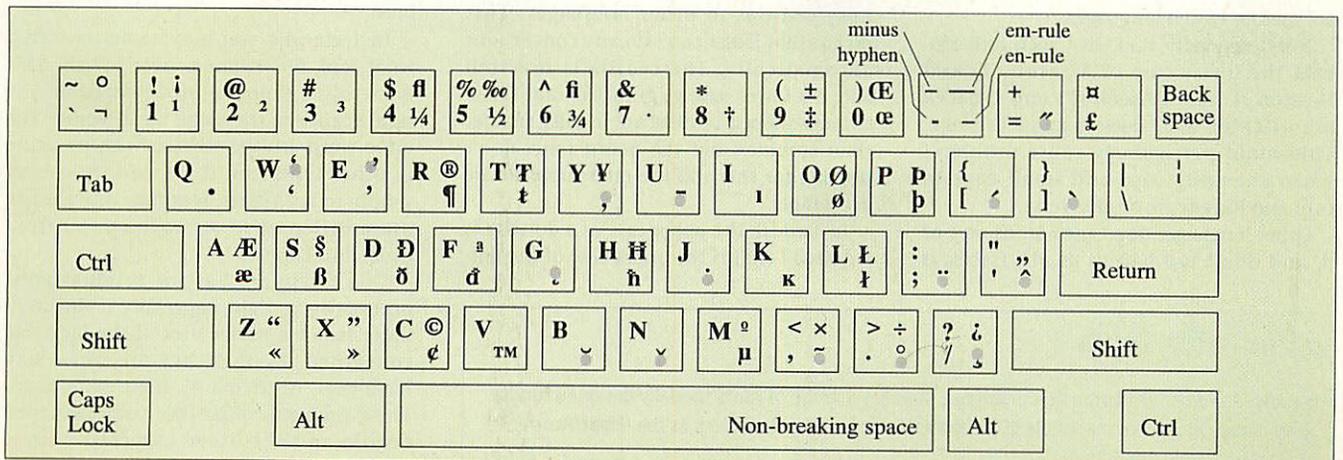


Figure 5: The !Float keyboard (pre-RiscPC)

All the diacritics are live – they appear as soon as you type them. Combinations that don't occur in any language known to !Float may not be positioned nicely by !Float. Diacritics are marked with a grey ring to distinguish them from similar characters: ~ swung dash; ^, hat; °, degrees; ‘, single quotes or apostrophe; „ full stop

One Stop Storage



CUSTOMER CARE
12 MONTHS SWAPOUT ON DATA STORAGE DEVICES
HARD DRIVES
OPTICAL DRIVES
SYQUEST DRIVES
TAPE DRIVES
 If you experience a product failure within 12 months of the purchase date, Technology Matrix will replace the faulty product from stock. Subject to availability.

Technology Matrix
 Authorised Acorn Reseller
 Authorised Apple Macintosh Reseller
 Authorised IBM Reseller
 All prices exclude VAT & carriage. Prices & specifications may change without notice. E. & O.E.

CUSTOMER SERVICE
 It costs six times more to attract a new customer than it does to keep an existing one.
 A typical dissatisfied customer will tell 8 - 10 people about their problem.
 Seven of ten complaining customers will do business with you again if you resolve the complaint in their favour.
 If you resolve a complaint on the spot 95% will do business again.
 Of those customers who quit, 63% do so because of an attitude of indifference by the company or a specific individual.
 In conclusion... we are saying that we know the level of services that you expect from us!



HARD DRIVES HARD DRIVES
HARD DRIVES HARD DRIVES

INTERNAL DRIVES	A3000	A3010	A3020	A3/400	RISC PC A4/5000	RISC OS VER. 3.6
120MB IDE	£149	£149	£89	n/a	n/a	n/a
250MB IDE	£239	£239	£189	n/a	n/a	n/a
420MB IDE	£289	£289	£229	n/a	n/a	n/a
510MB IDE	n/a	n/a	n/a	£159	£159	n/a
850MB IDE	n/a	n/a	n/a	n/a	n/a	£159
1.0 GB IDE	n/a	n/a	n/a	n/a	n/a	£195
540MB SCSI	n/a	n/a	n/a	£139	£139	£139
850MB SCSI	n/a	n/a	n/a	£159	£159	£159
1.0 GB SCSI	n/a	n/a	n/a	£199	£199	£199
2.0 GB SCSI	n/a	n/a	n/a	£589	£589	£589
EXTERNAL DRIVES						
540MB SCSI	£179	£179	£179	£179	£179	£179
850MB SCSI	£199	£199	£199	£199	£199	£199
1.0 GB SCSI	£249	£249	£249	£249	£249	£249
2.0 GB SCSI	£639	£639	£639	£639	£639	£639

SPECIAL SPECIAL 850MB IDE £159
SPECIAL SPECIAL 850MB SCSI £159

Canon BJ-30 Canon BJ-200ex Canon BJC-70 Canon BJC-4000

Canon BJ-30	Canon BJ-200ex	Canon BJC-70	Canon BJC-4000
PORTABLE MONO	DESKTOP MONO	PORTABLE COLOUR	DESKTOP COLOUR
360 x 360 dpi. 2 pages per min. 2 page auto sheet feeder.	360 x 360 dpi. 3 pages per min. 100 page auto sheet feeder	360 x 360 dpi. 2 pages per min. 30 page auto sheet feeder.	360 x 360 dpi. 2 pages per min. 100 page auto sheet feeder
£159	£179	£249	£249

Epson Stylus IIs	HP DeskJet 600	HP DeskJet 660c	HP LaserJet 5L
DESKTOP COLOUR	DESKTOP MONO	DESKTOP COLOUR	DESKTOP MONO LASER
760 x 760 dpi. 2ppm. Built-in-feeder A4	360 x 360 dpi 3ppm Built-in feeder A4	360 x 360 dpi 2ppm Built-in feeder A4	600 X 600 dpi 4ppm, 2mb Ram 2 paper trays A4
£229	£199	£279	£385

SYQUEST DRIVES

INTERNAL	DRIVE	CART
200MB SCSI	£289	£55
270MB SCSI	£229	£39
270MB IDE	£229	£39
135MB IDE	£149	£15
EXTERNAL		
200MB SCSI	£339	£55
270MB SCSI	£279	£39

CD-ROM DRIVES



PANASONIC PD DRIVE £379
 A combined Quad speed SCSI CD and 650MB optical drive
QUAD SPEED INT. SCSI £129
 (Suitable for fitting internal to RISC PC)
QUAD SPEED EXT. SCSI £169
 (Suitable for connecting to any external SCSI port. Includes all cables)
QUAD SPEED INT. KIT £199
 (Suitable for fitting internal to RISC PC. Includes a 16bit SCSI card allowing the further connection of up to 6 other devices)
QUAD SPEED EXT. KIT £259
 (Suitable for A3/400 A3000/10/20 A4/5000 RISC PC. Includes a 16bit SCSI card allowing the connection of a further 6 devices)

QUAD SPEED SCSI TOWERS

2 Drive System	£369
3 Drive System	£515
4 Drive System	£659
5 Drive System	£799
6 Drive System	£949

UPGRADES UPGRADES

IDE CARDS

A300/400	£69
A3000/3010	£69

SCSI CARDS

A300/400 16bit	£85
A3000 16bit	£85
A3010 16bit	£85
A3020 16bit	£85
A4000 16bit	£85
A5000 16bit	£85
RISC PC 16bit	£85
RISC PC 32bit	£165

GRAPHICS

Colour card	£199
Gold	
Movie Magic	£249
TV Tuner	£89
TV Tuner with Teletext	£159
Eagle M2 card	£329
Lark card	£199
Midi Max card	£69
GreyHawk	£99
Hawk V9 MkII	£199
Chroma 150	£129
Chroma	£149
Genlock CG3,4,5,6	

SCANNERS SCANNERS

CANON IX-4015	EPSON GT-9000	EPSON GT-5000
A4 Flatbed 400x800 dpi in 24 bit colour SCSI Interface	A4 Flatbed 600x600 dpi in 24 bit colour SCSI Interface	A4 Flatbed 300x300 dpi in 24 bit colour SCSI Interface
£569	£599	£389

OPTICAL DRIVES

INTERNAL	DRIVE	CART
230mb with 1 cartridge	£329	
1.3 gb with 1 cartridge	£799	
EXTERNAL		
230mb with 1 cartridge	£369	
1.3 gb with 1 cartridge	£849	

MONITORS MONITORS



ACORN AKF53	£269
ACORN AKF60	£315
ACORN AKF85	£529
IDEK 17" Multiscan	£519
SONY 15"sf Multiscan	£329

EDUCATION ANNOUNCEMENT
 Technology Matrix supply a full range of Apple Macintosh and IBM compatible computers, Printers and Upgrades
Your One Stop Computer Supplier



Equipment, prices and backup that make Technology Matrix the preferred supplier

MODEMS MODEMS

SPORTSTER 14.400	SPORTSTER 28.000	COURIER V.34 Dual Standard
ArcFax S/ware £28 ArcComm S/ware £39 Voyager Internet suite £59	ArcFax S/ware £28 ArcComm S/ware £39 Voyager Internet suite £59	ArcFax S/ware £28 ArcComm S/ware £39 Voyager Internet suite £59
£129	£195	£319

SOFTWARE SOFTWARE

Stacks Of Software for ACORN - APPLE & PC's

RISC OS 3 (chips only) £32
 RISC OS 3 (with manuals and software) £59

Payment Cards Welcome



Technology Matrix Hot Line 0161 320 0000

89a Stockport Road, Denton Manchester M34 6DD. Fax: 0161 320 3210



ORGANISED by



IN ASSOCIATION with



SUPPORTED by



CO-SUPPORTED by

- AMIGA ACTION
- ACORN USER
- GAMEPRO
- CD ROM NOW
- GD POWERPLAY
- SONYPRO
- MAGACTION
- APPLETALK
- MAGWORLD
- PC HOME

For Stand Bookings
 telephone
 Precision Events on
 0181 568 8374



internet LIVE



Welcome to Demon Internet
 Demon Internet is the UK's largest Internet service provider, with over 45,000 customers. Follow the links to find out more about Demon Internet, how to get a dial-up or leased line service and what the benefits of these are, how to get Web access on the Demon Web server and look at what's available in the way of books, reference guides and modems.

OPENING TIMES

Friday 17 May 10am - 6pm

Saturday 18 May 10am - 6pm

Sunday 19 May 10am - 4pm

Ticket HOTLINE: 01369 707766

Check our web site on: <http://www.idg.co.uk/ilive>
 or email us on: ilive@idg.co.uk



WHODUNIT?
 Whodunit? is a rich multimedia mystery serial. Each week we present a new chapter. Read the chapter, then use the powerful tools in our Criminal Archives to unravel the mystery. We have a chat section and an e-mail section so you can trade clues with other virtual Detectives. Just remember, Whodunit? is addictive so enter our world at your own risk.

17-19 MAY 1996

Wembley Exhibition Centre London



The Total Internet Experience

IT'S MORE THAN JUST AN EXHIBITION, it's a complete experience

Visit Internet Live on 17 - 19 May 1996 at Wembley Exhibition Centre and discover an Aladdin's cave of the most stunning aspects of the Internet and all it has to offer.

Whether you are connected or looking to get hooked up, the show provides you with a unique opportunity to unravel the mystery of the Internet and become part of the action, it's your chance to explore, test, evaluate, compare and find exactly what it can do for you. Internet Live is your chance to experience an exciting mix of interactive features, free seminars, presentations, advice centres, competitions and a host of special events catering to your every taste and desire.

EXPERIENCE THE INTERNET - touch it, feel it and experience the delights of surfing the WEB

WEB VIEW THEATRE - the coolest web sites...ever!

WEB CAFE - relax, unwind and surf

MODEM SHOOT-OUT - the fastest modems right here

SOFTWARE ON-LINE - get to grips with the latest Internet software

EDUNET - learn with the Internet, a must for parents, teachers and children

THE WEB HELP AND ADVICE CENTRE - confused and dazed? Don't worry the WEB Magazine's experts are here to help solve your Internet problems and get you back on track to the super information highway

SERVICE PROVIDER GALLERY - test and compare prices from the top providers.

ADULT ZONE - experience the extraordinary, weird and bizarre... sorry, over 18's only!

FREE SEMINARS - loads of seminars covering a host of topics about the Internet and much more.

FINDING wembley

BY BRITISH RAIL

Wembley Stadium Station

located between Marylebone and Banbury on the Chiltern Line.

Wembley Central Station

located on the Euston to Milton Keynes and Northampton Line.

BY UNDERGROUND

Wembley Park Station

located on the Metropolitan and Jubilee Lines.

Wembley Central Station

located on the Bakerloo Line.

BY BUS

The 83, 224, 226 and 297 services run between Wembley Park and Wembley Central, with the 83 stopping at the Complex.

Don't delay, avoid the queues book your fast track entry tickets today.

Internet LIVE! PO Box 9, Dunoon, Argyll PA23 8QQ

Simply complete and return this coupon: Please supply: (USE BLOCK CAPS)

Adult tickets QTY _____ @ £7 per ticket = sub-total £ _____

Child tickets QTY _____ @ £5 per ticket = sub-total £ _____

Family tickets QTY _____ @ £20 per ticket = sub-total £ _____

(2 Adults + 2 Children under 16) Total £ _____

I enclose a cheque/postal order made payable to INTERNET LIVE to the value of £ _____

Please charge my ACCESS/VISA/BARCLAYCARD

Card No _____ Expiry date _____

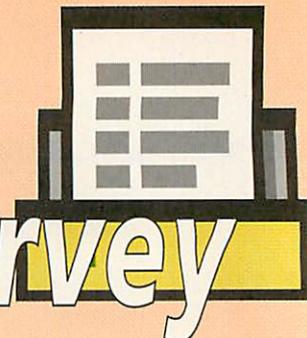
Full Name of Cardholder _____ Date _____

Mr/Mrs/Ms _____ Initials _____ Surname _____

Business Name (if any) _____

Address _____

Postcode _____ Tel: _____



The colour printer round-up in the last issue of *Acorn User* revealed the main difficulties with reviewing hardware – it's not the features that count, it's how the product stands up to prolonged use.

To compensate for that problem we're pleased to announce the *Acorn User Printer Survey* where you tell us how your model has performed and how the supplier's customer service has been – if

you've needed it.

We appreciate you may not be able to fill in all the details precisely but please give an approximation. We'll collate and publish the results so you can decide what printer you'll choose next.

Only include printers which you are currently using and don't include those that have been obtained second-hand. If you want to give details of more than one computer

please use a separate survey form. You can include printers that are used on non-Acorn machines.

Fill in the survey – you can photocopy it or use separate sheets – and send it to us at: *Acorn User Printer Survey*, IDG Media, Media House, Macclesfield, SK10 4NP. If you have access to e-mail you can send the survey to: auspecial@idg.co.uk but please ensure you put the word **PRINTERS** in the subject line.

Background

What sort of printer do you have?

Make _____ Model _____

How long have you had it and how much did you pay for it?

Where is it used?

School Home Work Other _____

What do you use it for mainly (tick no more than two)?

Correspondence Homework
 One-off reports Proofing
 Camera-ready copy Other _____

What do your typical print jobs consist of (you may tick more than one)?

Text only Text with black and white images
 Text with colour images
 Black and white images Colour images

How many print jobs do you do each week? _____

What printer driver do you use? _____

Living with the printer

How easy was it to set up?

Easy Fairly easy Hard Very hard

Were there any particular problems? _____

How easy is it to use?

Easy Fairly easy Hard Very hard

Are there any particular problems? _____

Does it fit well into your work area in terms of size, ease of access?

How much do you spend on your printer each month (include cost of inks, special papers and repair costs)?

Performance

How does the printer's speed match up to your expectations?

Usually faster Usually slower As I expect

How does the printer's output match up to your expectations?

Usually better Usually worse As I expect

Are there any areas where the output is particularly poor?

Are there any areas where the output is particularly good?

Has the printer broken down or otherwise failed?

Sales and Support

Who did you buy it from?

How good was the service of the dealer / manufacturer?

Was there on-site support?

How long was the warranty?

If you had to have your printer serviced/repaired under warranty, how did you find the service?

Excellent Good Adequate Poor

Who did the service/repair?

If you had to have your printer serviced/repaired after the warranty expired, how did you find the service?

Excellent Good Adequate Poor

Who did the service/repair?

How well do you think the printer lives up to the hype and the reviews?

Better As good as Not as good Badly

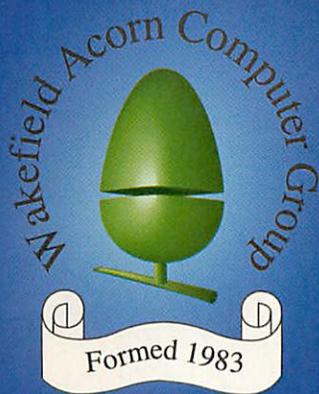
Would you buy one again?

Conclusions

What are the three best things about your printer?

What are the three worst things?

What will be your next printer and why?



All the latest products
on show from the biggest
and best Acorn companies

Wakefield Acorn Spring Show

in association with **ACORN**USER

Tickets on day **£2.50 Adults**
£1.50 Juniors up to 16

Sunday, 19 May, 1996

Or save and avoid queues by
pre-booking at **£2 adults**
& **£1 juniors** before **10 May 96**

at

Pre-bookings must be paid in
advance by either cheques or
postal orders and
made payable to **WACG Show**
(sorry credit cards not accepted)

Bookings to **WACG Show, 95**
Cumbrian Way, Lupset Park,
Wakefield, WF2 8JT

Organisers:

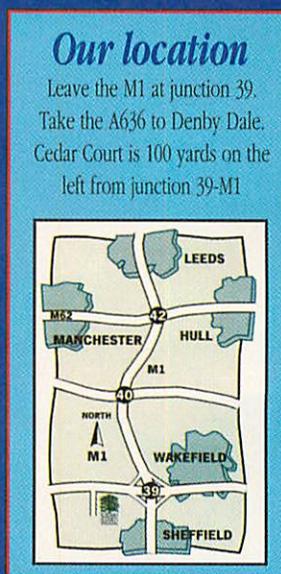
Chris Hughes, 95 Cumbrian Way, Lupset
Park, Wakefield WF2 8JT

Tel: 01924 379 778

email: chris@cumbrian.demon.co.uk

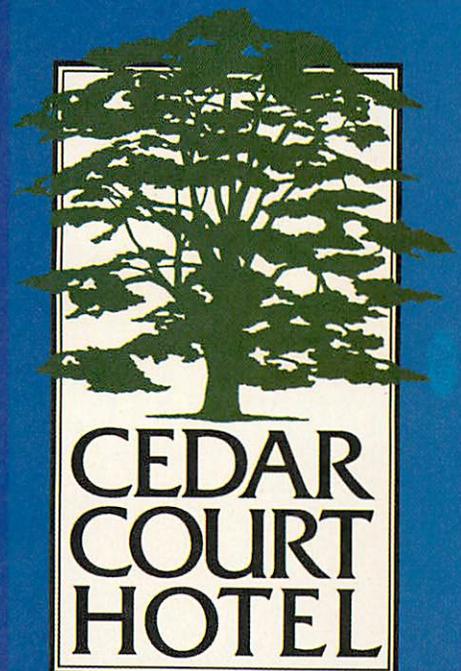
Mike Wilson, 10 St Peters Crescent, Morley,
Leeds LS27 9NY

Tel: 0113 253 3722 Fax: 0113 238 3058



Our location

Leave the M1 at junction 39.
Take the A636 to Denby Dale.
Cedar Court is 100 yards on the
left from junction 39-M1



M1 Junction, 39 Denby Dale
Road, Wakefield, WF4 3QZ

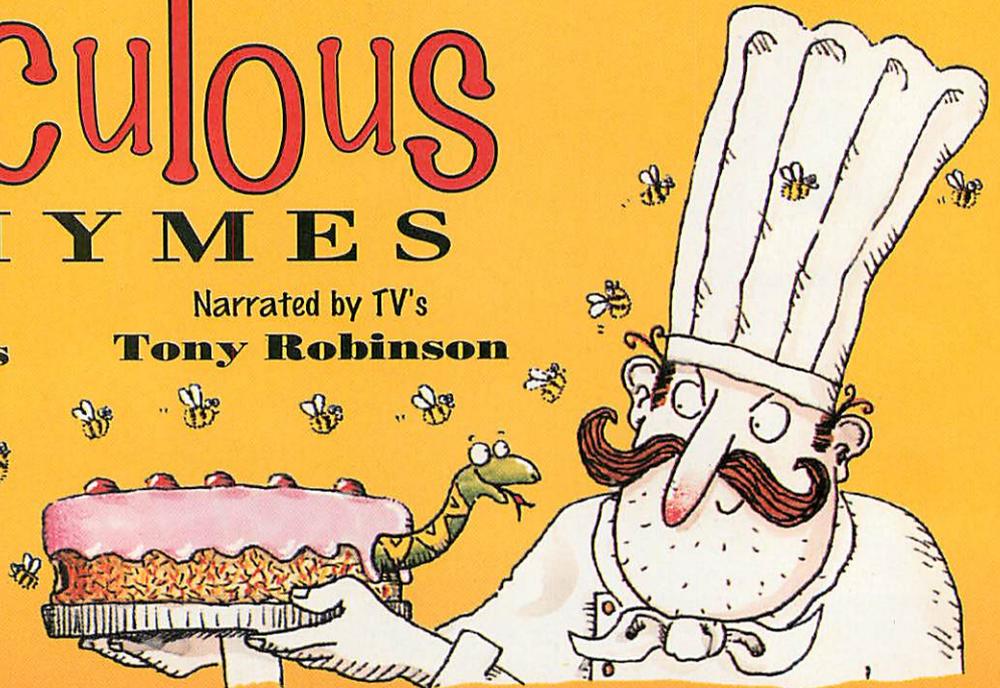
for latest information: <http://www.cybervillage.co.uk/acorn/wakefield/>

WILD AND WACKY STORIES FOR CHILDREN AND ADULTS

Ridiculous RHYMES

Written & illustrated by
Tony De Saulles

Narrated by TV's
Tony Robinson



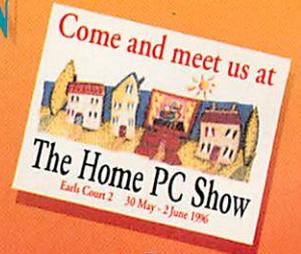
Age 7+ years

COMING SOON - Floppy version (May) & CD ROM version (September)
For WINDOWS, APPLE MAC or ACORN RISC OS

£47-00 inc VAT

AND FOR THE YOUNGER CHILDREN

NOW AVAILABLE
on
WINDOWS
APPLE MAC
and ACORN



Volume One

Billy the Bothersome Billy



Doris the Dotty Dog

Edwina's Energetic Elephant



Terry's Tricky Trainers



Tina's Terrible Trumpet

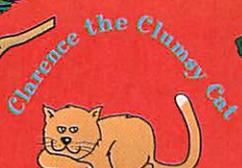


Toby the Troublesome Tractor

The Sherston Naughty Stories



Robby the Boastful Bird



Clarence the Clumsy Cat



Derek's Dopey Dinosaur



Gordon's Groovy Granny



Lucy the Little Liar



Tasma's Terrible Tantrums

Volume Two

The results of recent research have shown that '.. children using the (Sherston) electronic books showed significantly greater increases in word accuracy than those who did not have access to the computer.'

Age 5 - 7 years

Volume 1 or Volume 2 (six talking stories including books)

Each volume £64-33 inc VAT

CONTACT US NOW FOR A FREE COPY OF OUR 24 PAGE COLOUR CATALOGUE AND DEMO VERSIONS OF THE ABOVE PRODUCTS



Sherston Software Limited,
Angel House, Sherston, Malmesbury,
Wiltshire, SN16 0LH.
Tel: 01666 840433 Fax: 01666 840048
e-mail: sales@sherston.co.uk



Steve Turnbull looks at a system for dividing up a hard disc

Product details

Product: PadLock (£49) PadLock Junior (£15)
Supplier: Base5 Technical Graphics, P.O.Box 378, Woking, Surrey GU21 4DF.

Keeping prying eyes out of sensitive areas of a hard disc is one of those things that has preoccupied both the owners of standalone machines and those people who want to satisfy those genuine concerns.

However it's never been an easy task. The fact is that any security system can be broken, and anything that's too intrusive will be either abandoned or used in a way that reduces its effectiveness.

Base5 Technical Graphics have come up with their own system entitled *PadLock* as a possible utility to ease the strain.

The scenario is familiar: Standalone machine, multiple users, potentially sensitive or private material on the hard disc. Let's first look at how *PadLock* handles the problem.

How it does it

First of all the supervisor (for want of a better word) of the machine must set up named groups and, within those groups, named users and each user has their own password.

Then for each group the supervisor has to set up a set of permissions and/or prohibitions based on file/application/directory name or filetype. So certain applications may be *permitted* while certain directories may be forbidden.

With *PadLock* running it puts its icon to the right of the Task Manager icon and continuously displays a small window in the bottom right of the desktop for entering the passwords and accessing the program.

A user comes to the machine, enters his/her password and then gets the accesses which are allowed for the group he/she belongs to.

In addition group accesses can be limited to a certain time of day so the password won't be accepted outside of those times.

Security measures

Further configuration options that can be assigned to a group can limit access to the command line (through F12 or a task window) and *Filer_Action* is disabled preventing delete, copy and move.

Possible problems

With all these types of software mechanisms is that they can be bypassed by someone of sufficient knowledge. That's true, of course, for *any* protection system.

The question then is whether or not it's too easy with any particular system. Once *PadLock* is loaded it's tough to break, but getting at the machine before it's been loaded is a possibility (but see later).

Permissions and denials

The system of setting up the permissions for the different groups is fairly complex, perhaps too much so. It's possible to set up the system to deny all text files to a group and then individually allow access to certain files.

Alternatively (or additionally) you can deny access to specific files, applications or directories. The difficulty I found when I was setting these options was that it was fairly easy to make a mistake and permit access to certain files unintentionally, and once I'd done it I could not work out where the error lay resulting in the need to go back to square one.

Obviously a good supervisor would check all the options after he'd set them up but it was rather frustrating when an error appeared, and it would be easy to miss a combination.

In an ideal world the files that were unavailable would be hidden from view, however they aren't.

There is apparently no way for a user to have his own files protected to himself only, it can only be protected within his group and then only if a document is saved into a protected directory.

Good points

Base5 have gone to the trouble of using one-way passwords — similar to the PGP (Pretty Good Privacy) method of file encryption — the upshot of this is that a user's password is not stored with the application.

They have also developed a special module, called *Secure*, which they are making available to other software houses. *Secure* provides many useful features such as the installation of *alerts* which notify the application when various system events occur (screen blanking, specific Wimp messages and so on).

There's a Password Lifetime option which prompts the user to change his password after the limit has expired.

One of the additional features that has been implemented is the *!Bolt* application. What this can do is protect applications and the certain system files in such a way that if the specified objects are run or accessed when *!PadLock* is not running the machine will be made unusable.

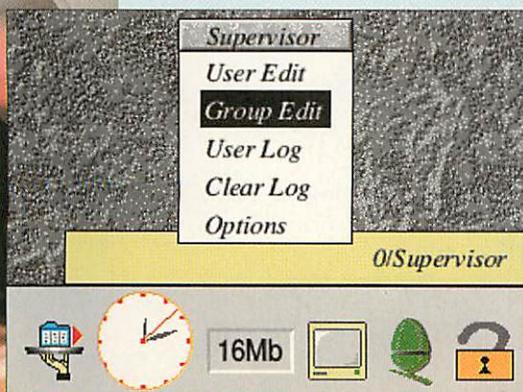
To some extent this alleviates the problem of someone getting to the machine and preventing *PadLock* from running because key areas, but it's not perfect.

If the supervisor forgets his own password there is an option for a *transient supervisor* — Base5 can be contacted for a special one-off password which allows access into *PadLock*, the supervisor password can then be reset. The transient supervisor password is then changed (automatically) so if needed a new one can be issued, Base5 reserve the right to start charging if someone persistently forgets their password. **AU**

Summing up

PadLock is a competent piece of software and I would recommend that anyone in need of this type of protection should take a look.

There's also *PadLock Junior* which provides single-user protection such that the machine won't work unless the password is entered. It does supply the *!Bolt* application.



Taken into custody

A different sort of file backup system
examined by Steve Turnbull

Most backup systems rely on you deciding to make the backup at specific times or, at best, having an alarm set-up to initiate the backup. *Custodian*, from Byte Back Computing, works differently.

Instead the idea is that you have the program loaded continuously and it has a list of files that it's supposed to keep backed up. When one of those files changes it automatically copies it using one of four backup algorithms.

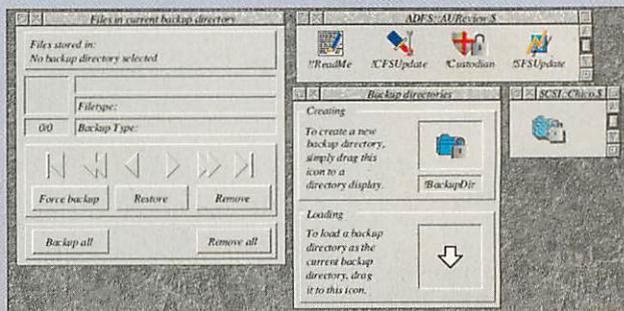
During my tests the program worked fine — although I felt some of the windows were a bit overdone stylistically.

You specify a backup location which has to be available all the time so is most likely to be on another hard disc — doing backups to the same one is not entirely sensible. Then give the program a list of the files to keep backed up.

The algorithms available are: grandfather-father-son, continuous chronological, single copy and once-only copy.

The first gives you the last two versions, the second just keeps saving new versions which could use up a lot of space, the third just provides a copy of the last saved version and the last only copies the file once only — when you first tell *Custodian* about it.

The backup location can be a compressed archive created by !SparkFS, !ArcFS or !Compression, but if it isn't the program will use



!Squash unless you specify no compression. If you use !SparkFS or !Compression you will also need to run the patch programs supplied.

Other features include optional delete detection so if the source is deleted the backups are removed as well, the manual points out that this is not too useful and is best not selected.

There were only two things I felt could be improved: When I work with *Impression* I always have the auto-save function operating and I'd prefer *Custodian* not to make backups as frequently as I save the work because I'm making my own regular backups to the original.

The other point is that my iconbar is already very crowded and I really don't want yet another icon — for which I seldom access the menu — stuck on it, so I'd really have preferred it to be invisible.

For me to use the program on a regular basis these two options would have to be fulfilled but I think, on the whole, it's a very worthwhile alternative to complete backups. **AU**

Product details

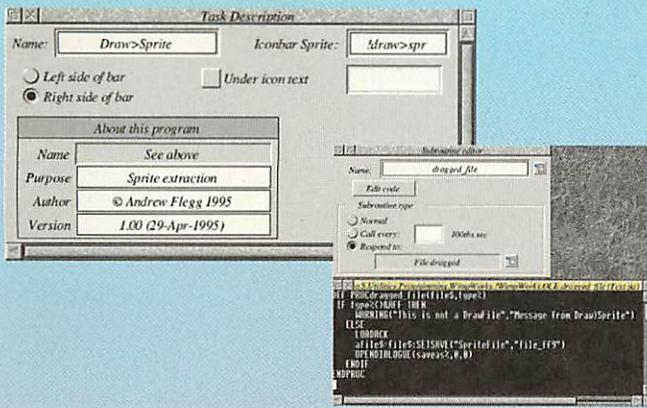
Product: Custodian

Price: £POA

Supplier: Byte Back Computing, P.O. Box 40,
Nottingham, NG5 6SS

Tel: 0115-955 4501

E-mail: k.cooper@byteback.emnet.co.uk



WimpWorks is yet another aid to Basic programming for the RISC OS Desktop but that in itself is a little unfair because this time it's not grossly huge and it manages to present at least some benefit to the programmer beyond just providing some pre-written routines.

What the system does is provide a complete Wimp shell plus an interface for creating procedures to be executed when specific system events occur. You create the procedures, plus any subsidiary ones using the built-in editor, the program can be saved and then run so that you can test it as you go along.

What's particularly clever about the system is the pseudo-keywords that it provides in addition to the usual Basic keywords, for example you can have GROUPSTATE, which returns the current setting of a particular set of radio buttons in a window, or REDRAW to force the redrawing of a window.

These extra keywords get translated into function and procedure calls when you save the program and yet, curiously, the fact that they're there in capitals produces a different effect than if they were presented as just another set of Basic routines.

All the commands have online help which supplies the parameters for the command and a brief description of what it does. The program makes extensive use of the PD WimpExt module and many of the additional commands are basic interfaces on to the WimpExt ones.

I tried out the system to create a simple application that runs the boot file of any application dragged to its iconbar icon. The resulting program took just twenty minutes to create, and that time was only due to getting to grips with the program.

Creating the windows

If you're going to be using windows — which most applications will — you obviously have to create them, the package is supplied with a copy of the PD program !TempEd, although you can use any window editor.

Creating a program is achieved through a set of editors, the one for windows has already been mentioned. The task editor allows you to modify what will appear in the Info box, which sprite to use for the iconbar icon, whether the icon is on the left or right and whether to set some text under the icon.

The procedure (or subroutine) editor is the one that'll be accessed the most. Using it you can create three types of routine: A normal one which is simply named and will be called from somewhere else; a *call every* procedure which, curiously enough, is called at regular intervals, down to centiseconds.

The final, most important type is the *Respond to* which means the routine will be called whenever one of thirteen events occurs, see panel.

The exact procedure is that you create a new procedure by giving its name, which is stored

Easy Wimp

Steve Turnbull investigates how useful Wimp Works really is

separately, specify the type, and switch into the editor which brings up a standard edit window in your usual text editor. The name you chose will be the name of the routine and any parameters will have already been set up.

All the routines are held as separate files within a directory which does lead to the problem of only 77 files being permitted at one time, however you can put more than one routine into one "module" so the problem can be avoided.

If it becomes a problem one alternative would be to change the OLE directory to, say, an ArcFS directory which allows any number of entries.

Editing menus

The menu editor is quite comprehensive and can produce all the varieties that are usually needed. Menu items can be set up to be initially ticked or shaded, lead to sub-menus, run a procedure when clicked or lead to the default Info or Save boxes.

A total of thirteen menu options can be set up which is enough for most purposes, and the thirteen doesn't include any dotted separation lines — any menu more complex should probably have sub-menus.

The menu identifier becomes a global variable within the program which contains the handle of the menu.

One of the more interesting features of WimpWorks is the ability to add WEMs — WimpWorks Extension Modules — which add additional keywords complete with their online help messages so, for example, a complete library of database handling commands could be designed and added, or a library for drawfile editing.

WimpWorks is excellent for creating small applications very quickly, and it could be useful for taking the first few steps on the ladder to learning Wimp programming. All that's needed now is a version that runs with the Toolbox and new resource editor. **AU**

The WimpWorks event codes

- Start-up
- Null
- Closedown (function)
- Iconbar click
- File dragged
- Help request
- File double-clicked
- Key pressed
- Save data
- Window clicked
- Unknown menu
- Window opened
- Window closed

Product details

Product: WimpWorks
 Price: EPOA
 Supplier: Jaffa Software, 14 Worthington Close,
 Henbury, Macclesfield, Cheshire SK11 9NS

Detailed statement for Apr-96 - Jun-96

Account c(current)
All classes
All marks

Day	Ac	Ref	Cl	Description	Mk	Rec	Debit	Credit	Balance
				Starting balance 1-Mar-96					0.00
				Starting balance 1-Apr-96					270.00
Apr-96									
1	c		s1	salary				700.00	970.00
3	c		r1	rent			200.00-		770.00
5	c		c1	cash			60.00-		710.00
8	c		c1	cash			40.00-		670.00
15	c	car	d1	direct debit			60.00-		610.00
16	c		c1	cash				50.00	660.00
28	c		x0	Trnsfer to Ac s			150.00-		510.00
May-96									
1	c		s1	salary				700.00	1,210.00
3	c		r1	rent			200.00-		1,010.00
15	c	car	d1	direct debit			60.00-		950.00

<Untitled> *

Account codes:
c Current
s Savings

Class codes:
x0 Transfers
c1 cash
c2 cheques
c3 credit card
s1 salary
s2 standing order
d1 direct debit
r1 rent

Insert Edit Delete Sort Postpone Std. entries Find Raise Lower Exit

Day	Ac	Ref	Cl	Description	Mk	Rec	Debit	Credit	VAT
14	c		s1	salary				700.00	
20	c		r1	rent				200.00	
21	c		d1	direct debit					14.00

Money Manager

Financial management is not one of my better qualities so I hoped *Money Manager* from Wyded Software might at least help me organise my finances – little as they are. It is designed to help set up an orderly accounts system, recording financial transactions each month.

On loading *Money Manager*, a main window is displayed from where all the set-up and editing is done. Accounts (up to 20) need to be set up first for whatever you need, this can include anything from your current bank account and savings to credit card and petrol.

The type of transactions (up to 50) that will be made need to be defined, for example, cheques, salary, cash. Marks can also be chosen to help you identify entries, these might be expenses, business etc. VAT codes may be used if required. With these details entered data can be input.

To enter transactions highlight the month and then fill in the details as listed. Standard entries can be set up, useful for regular transactions such as salary, rent or direct debits. Transfers can also be made from one account to another quite easily. Both transactions and the set-up details can be edited, deleted, added to and sorted, so there is no problem if you want to account for new and different transactions in the future or even alter details of those already entered.

Money Manager has some time-saving short-cuts. It can postpone an entry until the next month although there needs to be an entry already in the following month to enable you to Postpone an entry forward. The Find option searches from the

selected entry onwards but only highlights the first link it finds after that date, you have to repeat the process to see if there are any more. It is also possible to copy an existing entry in order to base another transaction on that one.

At any time a detailed statement can be seen of specified months and a more precise statement may be displayed by choosing particular accounts, classes and markings.

The statement resembles a bank statement listing the transactions in date order and giving the balance after each transaction. Transfers will show on the statements detailing the amount that has been transferred to and from where.

Alternatively a class totals report can be generated for specified months. This shows the sum of all transactions made. It allows you to choose precisely the sections you wish to be shown: grouping classes, omitting classes altogether and even showing the amounts as percentages.

Reports can be saved into a word processor or DTP package and as *Money Manager* cannot print reports itself they can be printed from there.

Each data file will hold a maximum of 12 months data with up to 500 transactions each month. Adding new months is possible but the earliest month is deleted from the file, this can be saved elsewhere if required. When creating new files there is the facility to merge codes from another data file which saves setting up all the codes time and again.

Options from the icon bar menu include choices for automatic saving at timed

Karen Peach tries to get her finances straight

intervals and automatic loading of a specified data file.

I felt that the manual needed to include more details on some actions such as setting up and using Standard Transactions. It does include a list of keyboard short-cuts and a few questions and answers which are helpful. The tutorial is useful to work through giving a good introduction to the package.

As with any accounting package its success and accuracy depends on entering every financial transaction made. *Money Manager* is suitable for a basic arrangement but can also be used for a more complicated accounting system as it can deal with numerous accounts, transactions and produce detailed statements. I just wish that it could arrange for a huge amount of money to be transferred into my real bank account.

Money Manager Pro should be available around Easter which will have a different data display and unlimited monthly entries. **AU**

Product details

Supplier: Wyded Software

Price: £24.95

Address: 16 Finderne Drive, Wymondham,

Norfolk, NR18 0HU

Tel: (01953) 604255

SUPER VALUE FONTS

Buckingham Friendly Jotter
garden Chicken
Schwarz Select
THEATRE Ladybird
Amber Milton Keynes
Gangster Bit Caimica
Bolt Classic Koch
Palatino Hardcase Swizz
Oxford Citric Trio
Reiner Baskerville
Cooper Black @D English

MegaType Park Avenue
YOUNG Brush Script
Acorn TECH TAyLE
STENCIL Orange
SPLUDGE Dubiel
ALGERIAN SOLID XMM
BALLOON Lazy SwiPol
Raven George **W#00**
SCOP **W#00**
Cybernoid

Fonts 1

POST CRYPT **W#00** Murder
7x Scripl Ricksaw
Informal Chaoline
Architect Phaedrus
Chinese Kathlita
TERMINATOR Borzoi
Italia Caligula **Misc**
Psychadelic El Garrett
Heideberg Jackson
Laser Square Black
Andromeda Charlie

FLINTSTONE Conaith
METRO LINER Future
Wippening EDOXA LED Style
CAVEMAN Video Graphic
Daylona Windsor Oregon
Jazz **Baraja** **ESPERERO**
BUBBLE **SNYDER** Ponceio
China TOWN STRENGTHMAN
NEWBY Gordon DUBIST
New Sweet

Fonts 2

DIASION MULTICOLOR
Kick Off SIMPSONS
TAX **W#00** Juliet
PO-PAH **W#00** SCOROL
EEEEEE Red SQUARE
Oak Wood Romeodn
Dark FUNK QUIZ SHOW
Apollo annie food Sty
Mushy **SPURS** american
FRAMER Koshgarian

Notepad My Words
King William Baskerv **W#00**
Carnel Christmas Duncan
CASCADON PYCCKIN
Laurer Upper WEST
MICRO WESS LIGHTNER
GLUMSY RACKHAM
GRUMAN Hot Shots
ZALESKI DRAIN ICED UP
TRIBE Science Cairo
Mardi Faktos

Fonts 3

PURE METAL NEW YORK
SHREVE METROPOLIA
Chalk FIRE WATER
BELE **W#00** **W#00**
BLACK AIDER II Vampirey
GREEN **Ran** BONES
First Wires Royal **W#00**
Birthday LOOMBIRDIC
Geselle Paganina
Creedmore **BENNY**
W#00 **W#00** Chopin

Beatville **MANIA**
DINER rabbit ears **SPARK**
BBB Medusa **FIXIST**
ANTIQUE Fundage
Great CAD Mancho Madrid 2
Gexo **GULBES** Litch
Anquilla **MAZAMA** Flemish
EMITIN STEMS Dickens
CARACIS FoxTrot
W#00 **W#00**

Fonts 4

liberal Casual Paradox
Ink Biot Arabian
Care Free Maidalane
Shippy Dragon Wick
Phoenix Pixie **W#00**
REALWOOD Wood Strip
Zany **Rent** **W#00**
ASSORTMENT luponhour
EIRE **NEON** Polo
Bad Boy Sans Serif
IMPRINT BELIEF X

Poor Type DotMatrix
GENOR Arctic Scout
FOLDER Nordic Fred
Coliseo Harquail
DELTA Mira **SMILETOOTH**
CARTERS **W#00**
FELTPEN FeltMarker
LOVE PAGE Eye Brow
Bateswell Hamington
Cracked Big TOWN
Caraway STUNK

Fonts 5

RoughBrush **SHRAPNEL**
DINOSAUR STARBURST
InkyType RHYOLITE
Pure Babe Premium
MIMMUM Natural
Jazz **W#00** **W#00**
Zazy **W#00** **W#00**
kew wires **Ola Messy**
BellBottom **Pieces**

Wide base **CROSSROADS**
Cross Wits **MetLine**
W#00 **W#00**
GRUBBY **W#00**
DIEGGER Western 1
STERLING Western 2
Bradford LED White WESTERN 3
W#00 Times Open WESTERN 4
Prefix **ZOLAONG** Yamato
ZARROW RELIEF B
NE/VAR Skull

Fonts 6

Exposed **EricContor**
GLASSLITE **W#00**
Weyfany **W#00**
NLQ Inkjet **W#00**
Knotted HORRORPLUS
Naked **W#00** **W#00**
ROMANTIC **W#00** **W#00**
SCORP **W#00** **SKILLINE**
ENGRAVER **W#00** **W#00**
SupError **W#00**
Tvlvite **W#00** GREKO

WoolWind **W#00** **W#00**
After Staped Upright
Apexrix **Comberic**
Edged **White** **COMB**
DingDong **CROSS/CRACK**
W#00 Brighton
Bricks **FLAME** Byborg
Ballet **Flawed**
W#00 **Zeppo**
SCRATCH **W#00**

Fonts 7

Minster Mister **ANTHUR**
W#00 **W#00**
WoolBoy **W#00** **W#00**
CompLan **W#00**
berative Neu **W#00**
Middleton **W#00** Piggy
Mirisch **W#00** **W#00**
W#00 **W#00**
Kelvin Always Jagger
Laurance **W#00**
Oregon **W#00**

divann **ZEBRA** **W#00**
Stroked **W#00**
Stumpy **W#00**
PIMKAMP Rudelsberg
W#00 **W#00**
SCRIPTURE **W#00** Spoted
W#00 Serpentine
LYNX **W#00** **W#00**
LOOP DE LOOP

Fonts 8

1968 **Smobly** LEIGH
ALGERIAL **W#00**
W#00 **W#00**
Agreshire **LIVECITY**
BIKO **W#00** **W#00**
W#00 **W#00**
Cetic **W#00** **W#00**
Chicago **W#00** **W#00**
ClassicNib **W#00**
W#00 **W#00**
Columbus **W#00** **W#00**

CRYSTAL NOUVEAU
Diamonds **OMNIBUS**
Dobkin Silver Question
DraftTwo Flowers
Farlow Shaken **ROLLER**
FASTWRITE **W#00**
W#00 WESTERNS
System X WESTERNS
W#00 WESTERNS
Relive SoftWords

Fonts 9

MatchMaker **NightTime**
DarkRigs **W#00** **W#00**
BT **CLASSIC** **W#00**
ST **W#00** **W#00**
W#00 **W#00**
ST MONITOR Wesley
ST Movie **TOMBSTONE**
ST Titles **WiseWords**
Draftman Dunkin **Kanza**
ENVRD **W#00** **W#00**
SS Open **W#00** **W#00**

DataFace Nineteen
Housy **W#00** **W#00**
SWEETBOX YearBook
SWEETSHOP **W#00**
W#00 **W#00** **W#00**
W#00 **W#00** **W#00**
W#00 **W#00** **W#00**
TEAM SOLID
SweetWord **TEAM USA**
Roundary **W#00**
Eras Stage

Fonts 10

iSV Products TableCalc

Spreadsheet and Table Generator

Save £10
£21.50
inc UK p&p

"...should give the producers of Schema"
Resultz and Eureka something to think about."
Acorn User March 1995

- OLE Links with Impression, only uses 260K
- Point & Click expression editing
- Export as TableCalc, Draw and CSV
- Insert & delete columns before & after cursor
- Adjust cell sizes by dargging
- WYSISYG display with user definable styles
- Simple and easy to use button bar
- Multiple files in memory / cut & paste
- Uses full 24 bit colour & supports interactive help

Acorn User Awards 1995
Runner up best business software

"...delightful to use..."
Alex Singleton Acorn User

Fancy a New Image?

A ColourCard on a disk?

VIVID 5000

The graphics enhancer on a disk

The latest version of iSV Products VIVID screen mode enhancer designed for the Acorn A5000, A4000, A3010 & A3020 with 14" multisync monitor

Most work areas now available in 256 colours including 1024x768 and 2112x1664
Refresh rates up to 64hz
Easier access to utilities/information windows
1600x1200 work area in 256 colours at 60hz*
Almost 100 new screen modes
Greyscale versions of all modes
Easy to use RiscPC style mode picker
Now compatible with Computer Concepts ColourCard
Save default work area and number of colours
Almost no slow down even in big 256 colour modes
Extended 4 colour greyscale dithering
Compatible with all correctly written multi-tasking apps
Requires NO extra hardware (But needs Risc OS 3.1)

"...remarkable..."
Verdict: Excellent"
Risc User Oct 95
Review of VIVID20

only **£16.50**
inc UK p&p

To upgrade from VIVID20 simply return your master disk with a cheque for £5.50

Can't afford a Multisync Monitor?

VIVID CGA

Up to 256 colours in all modes
Refresh rates up to 60hz (less flicker)
Much bigger work areas / needs no extra hardware
Greyscale versions of all modes
Easy to use RiscPC style mode picker
Save default work area and number of colours
Extended 4 colour greyscale dithering
Compatible with all correctly written multi-tasking apps
EGA+ work areas are almost as good as a multisync
Requires Risc OS 3.1 & 50hz TV Type monitor eg Acorn AKPT1

only **£11.50**
inc UK p&p

DrawWorks

Half Price
£9.00
inc UK p&p

- Set up and save multiple Draw preferences
- Large Draw undo/redo buffers
- Floating 2nd tool bar with commonly used features
- Path merging, Auto kerning of fonts
- Make amazing patterns/stencils etc
- Tear off toolbox (not RiscPC)
- Full on screen manuals with example files

"...a lot of fun...great value...and very useful."
Richard Barlow Arc World March 1996

XStitch for Risc OS

"...ridiculously low price...cons: none."
Acorn User November 1995

"...particularly useful... Value 5/5."
Archimedes World June 1995

Save £5
£16.50
inc UK p&p

Anchor Approved

iSV Products
86 Turnberry, Home Farm
Bracknell, Berks, RG12 8ZH
Tel 01344 55769

All prices include UK carriage
Overseas orders please add £2.00
All details are correct at the time
of going to press & O.E. All Trademarks are acknowledged
Discounts are based upon prices exc p&p

Skyfall

Each of the above font packs contain 50 different typesfaces plus many additional styles (make a total of over 1200 fonts in all ten packs). Why pay more, when our standard fonts will work well with ALL applications, including Impression, Pendown, Draw and Ovation.

One Pack £9.95 - Any Three Packs £19.95
Any Six Packs £29.95 - All Ten £39.95

Or the 'RISC OS Font Emporium' CD ROM for £29.95

The above prices apply to 1600K format HD discs. If 800K format DD discs are required please add 50% to the above pack prices. RISC OS 3 recommended. Postage is free for UK and Europe, elsewhere airmail postage will be charged at cost. Official orders are welcome.

SKYFALL / PO BOX 2220 / BIRMINGHAM / B43 7SF
TEL 0121 358 7078 / FAX 0121 358 5969
email SKYPAILL@zenta.demon.co.uk

A3000 upgrades

Memory

1-4Mb	£89
1-2Mb	£39
(See also the "2nd user" section)	
1-2Mb (upgradable to 4Mb)	£48
2-4Mb upgrade pack	£72
4-8Mb	£199

The above upgrades are all constructed on four-layer boards, as recommended by Acorn. Gold plated connectors are used for reliable contact with the A3000 main board. There are no clips or wires, and no soldering is required (except 8Mb upgrade). Some older types of 2Mb board cannot be upgraded to 4Mb, but we offer a trade-in allowance. Please phone for details.

Hard drives

A range of internal hard disc upgrades is available. The upgrades simply plug into the internal expansion slot. Also suitable for the A3010.

80Mb	£149
120Mb	£185
170Mb	£205
240Mb	£230

RISC OS 3	£39
ARM3 (25MHz)	£129
(Dealer fitting recommended for the ARM3)	

A3010 upgrades

Memory

1-4Mb	£99
1-2Mb	£38
2-4Mb	£79

The 2-4Mb upgrade is constructed on a compact four-layer board. No soldering is required.

Hard drives

A range of internal hard disc upgrades is available. The upgrades simply plug into the internal expansion slot. For prices, refer to the A3000 section.

A310 upgrades

Memory

1-2Mb	£69
1-4Mb	£99

All our A310 memory upgrades are constructed using four-layer circuit boards. There is no other 300 series RAM upgrade which has been available for as long as this one, and which has the same reputation for quality and reliability. A fitting service is available.

4-8Mb	£199
-------	------

Hard drives

A range of internal hard disc upgrades is available. Prices below are for complete systems, including metalwork, controller card and cables as appropriate. No specialist knowledge is required either for installation or use. A backplane is normally required in order to fit a hard drive.

IDE

850Mb	£215
1Gb	£240

SCSI

540Mb	£215
1Gb	£284

Backplane (4-slot, four-layer)	£49
Fan for above	£8
RISC OS 3	£39
RISC OS carrier board	£17
ARM3 25MHz	£129
MEMC1a	£39

A3010 2-4Mb RAM upgrade Introductory price £79

A3000 4Mb RAM £89

A5000

Memory

2-4Mb	£69
4-8Mb	£199

Dealer fitting for the 8Mb upgrade is recommended for the 25MHz A5000.

A3020/A4000

Memory

2-4Mb	£74
-------	-----

Hard drives

80Mb	£96
120Mb	£132
140Mb	£147

A400/1

Memory

Per Mb (up to 4Mb)	£38
4-8Mb	£199
RISC OS 3	£39
ARM3 (25MHz)	£129

Hard drives. For prices, refer to the A310 section.

Various

Alsystms SCSI 2	£170
ARM3	£129
RISC OS 3	£39
MEMC1a	£39
Hard disc cradle	£6
Fan filters (pack of 5)	£3
RISC OS manuals, no vat	£22
Dongle dangle	£6
Chip extractor tool	£4
(for eg MEMC, ARM2)	
CDFS upgrade for Oak SCSI card	£25

The following items are reduced to clear. Please phone to check availability.

1 Meg V Ram	£50
Wordworks	£25

RISC PC

Extra RAM (SIMM)

4Mb	£75
8Mb	£130
16Mb	£225
32Mb	£Call
SIMMs taken in part exchange (4Mb or larger).	
2Mb VRAM	£139

RiscPC600

4M, HD425 AKF60	£1148
4M, HD425 AKF85	£1426

RiscPC700

5M, HD425 AKF60	£1360
5M, HD425 AKF85	£1635
10M, HD850 AKF60	£1692
10M, HD850 AKF85	£1970
486PC card	£99
(when ordered with RISC PC)	

2nd User

Please phone to check availability.

A3000 1-2Mb	£20
A3000 RAM board	£5
(ie bare board, no chips)	
A5000 2-4Mb	£58
4Mb SIMM (Risc PC)	£55

Spares/Repairs

We carry stocks of most replacement chips for the Acorn range. (MEMC, VIDC, IOC and most memory devices). We can also fit any upgrades and offer a computer repair service.

How to order: Please add VAT (17.5%) to all prices. Cheques made payable to IFEL. Most Credit cards accepted, and Switch. Official orders welcome.

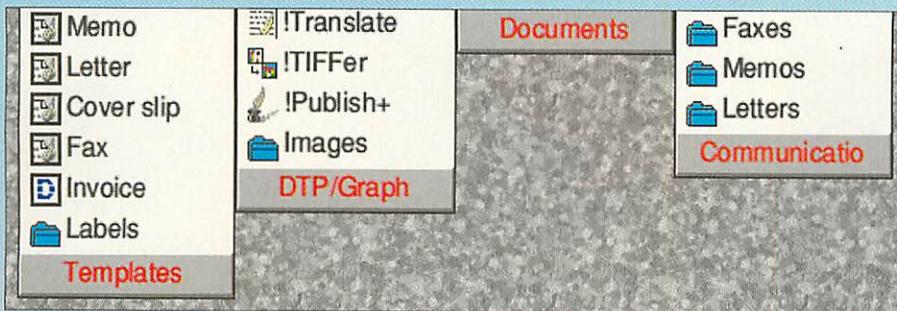
**Educational and quantity discount available.
Dealer enquiries welcome.**

IFEL

34 Culver Road, Saltash, Cornwall PL12 4DR. Tel (01752) 847286. Fax (01752) 840029



All products (except some from the "2nd User" section) are fully guaranteed for 12 months. All items normally carried in stock have a 14-day money-back guarantee.



Racking up **the** options

If you're fed up with endlessly searching for the file/application/directory you want, especially if there are particular ones you use often but stored deep within your hard disc structure, *MenuBar* by Graham Crow might be for you.

It enables you to organise files into menus to suit you regardless of where they are stored on disc. It is displayed at the top of the screen as a slim bar of pull-down menus. The maximum number of menus is 10 which can contain up to 30 items in each, although you can just have one menu if that is all you need. When too many menus have been set up for them all to be displayed across the screen, they will be 'telescoped' so that part of each menu title can still be seen and accessed - clicking on the menu title will bring it to the front.

Once *MenuBar* is loaded the menu strip is displayed; if you want a more detailed title than menu numbers you can alter it to a name of your choice. The title will remain in light grey type until you add items to the menu when it will change to red.

Adding items to a menu couldn't be simpler - just drag them from a Filer window, individually or as a selection and drop on to the menu title. These will then be listed above the title so that either the whole list can be displayed when the menu is pulled down or just as the title at the top of the screen when not in use. A menu can be opened by double-clicking select on the title or by dragging it down, to close either drag back up or double-click with adjust.

Items in the menu can be opened in the usual way, by double-clicking, and can also be dragged onto the desktop. You can also select

several items at once, to run them all or remove them from the menu - this does not delete it from the hard disc though. The same item can appear in more than one menu if you desire.

Menu items will appear in the order you enter them. If you wish to re-arrange them there are several options: by dragging the item to its new destination within the menu, sorting by name (alphabetically) or by type. Sorting can be set up to work automatically when adding new items. Whole menus can also be repositioned on the menu bar so that each menu is where you want it.

A search facility is available which opens the menu highlighting where the search item can be found - opening all menus in which it finds the search item and closing the others. *MenuBar* will be unable to find an item if it has been deleted, renamed or moved on the hard disc - a red cross will appear in place of the drag icon and also in place of the file icon when *MenuBar* is re-launched.

You can load a file into a specific application by holding down Alt and dragging a file from a menu or from the Filer and dropping it onto the Application. By choosing *IconSprites in Choices the correct icon will be displayed for applications which have not been 'seen' by the Filer, the generic 'Application' icon will appear if not selected.

Including *MenuBar* in your Boot sequence will ensure that it is loaded on start up. It requires RISC OS 3.1 or greater to run.

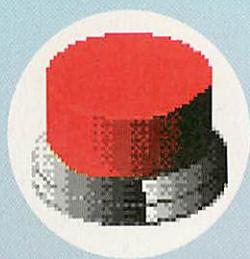
MenuBar is great for organising what you require into an order that you can work with. It's unobtrusive on the desktop, easy to set up, use and alter. Basically it's up to you to arrange the menus in a way which is most convenient for you and I'd say its worth every penny. **AU**

Karen Peach investigates a sophisticated and elegant way to access your programs on files

Product details

Supplier: Beebug Limited
Address: 117 Hatfield Road, St Albans, Herts,
AL1 4JS
Tel: (01727) 840303
Fax: (01727) 860263
Email: info@beebug.co.uk
Price: £11.95 ex VAT

Right on



the button

Buttons is an Easy Program Launcher from Lindis/Vision Software. It gives quick access to programs from a list of buttons chosen and compiled by yourself. It also provides a basic way of protecting the hard disc from being accessed by others and is designed for primary schools.

First you need to decide which programs you want accessed from each button. You begin with a blank button and fill in the details required. Then simply drag a program from the hard disc into the Drop Files Here box, which then separates into an icon, a description and also a list of tasks/files included in the complete button.

The description can be changed to however basic or detailed you require. On pressing OK the button is displayed on the desktop. To add more buttons you can Create before or after the highlighted but-

Karen Peach examines a simple new program launcher

ton and repeat the process above. Any button details can be changed.

The maximum number of buttons you can have is eight and you can drop up to a total of eight programs into each button. When you double-click on a button all programs in the button are run which, if it's full, is a little overwhelming.

Buttons also has a security system which basically enables the teacher to restrict access to the hard disc, so that only the programs in the pre-defined buttons are available for pupils. Go to Setup and click on Protect hard disc - this removes the Hard Disc icon from the icon bar and leaves the buttons as the only available

choices for the pupil. To make the hard disc accessible again just repeat the above and the icon will return.

If work needs to be saved on the hard disc while it is protected, a work folder can be set up for the pupils. The work folder will then appear in place of the Hard Disc icon on the icon bar.

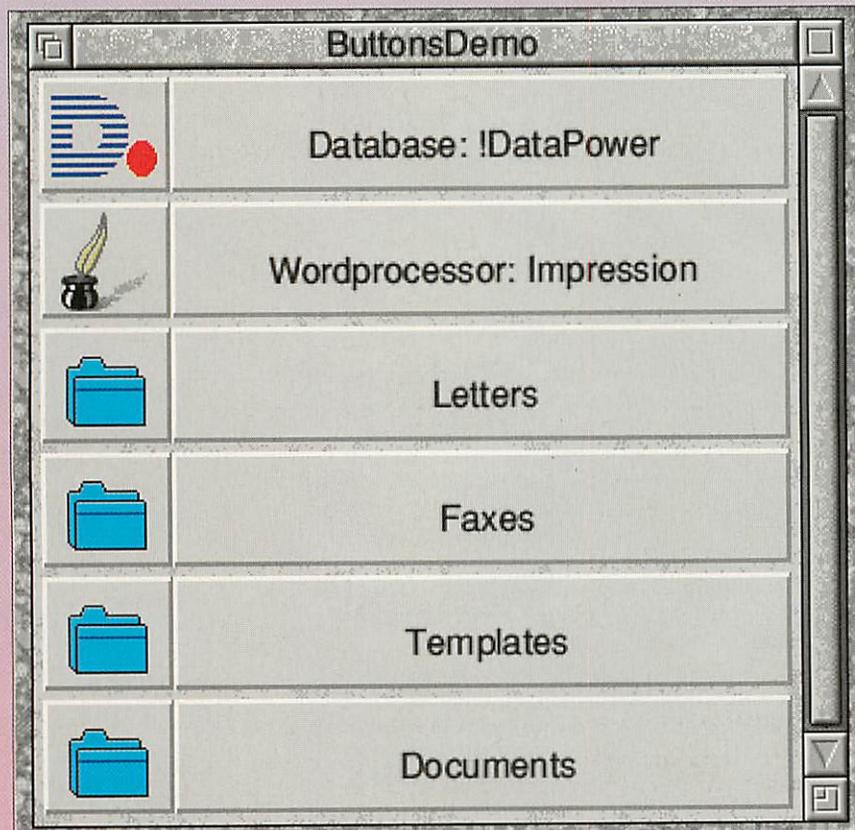
A password method of protecting the buttons from being altered is available. You can also set up the computer so that *Buttons* starts up automatically when you turn it on.

For teachers, *Buttons* is quick and easy to set up. The instruction booklet is simple to follow, despite being incomplete in the Automatic Starting section for those using the A7000.

A new version is due out in a couple of months which will have complete instructions plus the ability to create a limitless number of buttons. It will also have a minimise function so that the button window can be reduced to an icon. **AU**

Product details

Supplier: Lindis International
 Address: Wood Farm, Linstead Magna,
 Halesworth, Suffolk. IP19 0DU
 Tel: (01986) 785476
 Fax: (01986) 785460
 Email: all@lindis.demon.co.uk
 Price: £24.95 (ex VAT) for single user, £74.95
 (ex VAT) for primary site licence



COLOUR PRINTER RIBBONS & RELOADS

Just take the top off, take out the old ribbon and reload it with a new one. Full instructions supplied.

	Complete ribbon	One reload	Five reload
Citizen Swift/ABC/224	£11.95	£6.99	£29.95
Panasonic KXP2123/2124/2180	£9.99	£6.99	£29.95
Panasonic KXP2135	£9.99	£6.99	£29.95
Star LC200 9 pin	£9.64	£5.99	£23.95
Star LC24-10/20/200	£9.64	£6.99	£29.95
Seikosha SL95	£14.95	£6.99	£29.95
Star LC24-30/LC240	£8.99	£4.95	£19.99

BLACK PRINTER RIBBON RELOADS

Just take the top off, take out the old ribbon and reload it with a new one.

Citizen Swift/ABC/120D 5 black reloads.....	£9.99
Star LC10/20/100 5 black reloads.....	£4.99
Star LC24 Range 5 black reloads.....	£9.99
Seikosha 1900/2400/L95 5 black reloads.....	£9.99
Epson FX80/LQ800 Range 5 black reloads.....	£11.99
Star LC24-30/LC240 5 black reloads.....	£14.99

INKJET REFILLS

For: HP DESKJET 500, 510, 520, 550, 500C, 550C, 560C. EPSON STYLUS 800, 1000. CANON BUBBLEJET BC-01, BJ10E/EX/SX, BC02, BJ200, BJ130, BJ300, BJ330. OLIVETTI JP150, 250, 350. CITIZEN PROJECT.

6 Refill Kit 120ml pure black.....£16.99
CANON BJC 600, BJC 4000
20 Refill Kit 120ml pure black.....£16.99
EPSON STYLUS four refills 120ml pure black.....£16.99
TRICOLOUR REFILL KITS FOR H.P. DESKJET RANGE
CANON BJC600, BJC4000 etc. 10 Refills of Yellow,
Magenta & Cyan 180ml.....£24.99
EPSON STYLUS TRICOLOUR refills
Yellow, Magenta & Cyan 180ml.....£24.99
Print Head Recovery Fluid for unblocking nozzles.....£5.95
Important: Please state type when ordering.

T-SHIRT PRINTING RIBBONS

PRINT ON TO PAPER, IRON ON T-SHIRT

4 Colour Citizen Swift/ABC/240.....	£19.99
4 Colour Citizen Swift (Reload).....	£9.99
4 Colour Star LC10.....	£10.99
4 Colour Star LC200 9 Pin.....	£12.99
4 Colour Star LC200 9 Pin (Reload).....	£7.99
4 Colour Star LC200 24 Pin.....	£19.99
4 Colour Star 24 Pin (Reload).....	£9.99
1 Colour Star LC10.....	£9.99
1 Colour Star LC200 9 Pin.....	£9.99
1 Colour all Star 24 Pin.....	£9.99
1 Colour Epson FX80/LQ400/MX80.....	£9.99
1 Colour Epson LX80.....	£9.99
1 Colour Panasonic KXP 1080.....	£9.99

Wide range of other ribbons available

SPECIAL RE-INK

For Panasonic 1080/81, 1124, 1180, 2123, 2135, Star LC200 9 Pin, Epson LQ100, Oki 182/390, Black bottle will re-ink 100 + ribbons.....£9.95

All Prices include VAT and Carriage
How to order: Enclose cheques/PO made payable to CARE PRODUCTS or use Access/Visa.

CARE PRODUCTS

Dept ACU, 15 Holland Gardens, Garston, Watford, Herts, WD2 6JN.
Tel: 01923 894064 Fax: 01923 672102



CD-ROM

Eesox Parallel Port CD-ROM drives

• !!! Double speed, £149 inc VAT !!!

• Quad speed, £254.47 (£299 inc VAT)

• Hex speed, £359.00 (£421.83 inc VAT)

• SCSI CD-ROM -> Parallel port Kit £35.00

Eesox SCSI CD-ROM drives

• !!! Double speed external £149 inc VAT !!!

• Quad speed below £146 ! External available

• Six speed below £ 300. External available

• 6.7 speed £ 325. External available

Eesox PD CD-ROM and 650MB cartridge

• Quad speed internal £449, external available

Eesox IDE CD-ROM drives

• Quad speed below £120 !

• Six speed below £ 200.

Eesox CD-ROM Enhancement Software

'CDFast' speed up utility £25 (£20 with drive)

'NetCDFast' speed up utility £130 (£99 with tower)

Eesox CD-ROM TOWERS

Drives	Quad Speed	Six Speed
2	£ 379	£ P.O.A
4	£ 679	£ P.O.A
6	£ 979	£ P.O.A

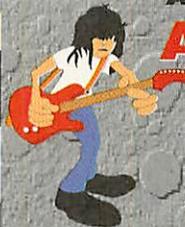
CDBrick

for the fastest CD-ROM access

MAKE YOUR OWN audio CD or CD-ROM

Audio CD £40, CD-ROM £60

Audio Products



Eesox Audio Mixer for RISC PC £35

16 bit sound card for RISC PC £59.95

12W speakers £25 (£20 with a drive)

25W speakers £35 (£30 with a drive)

80W speakers £49 (£44 with a drive)

Storage Devices

IDE Hard Discs

Please call for latest

SCSI Hard Discs

540MB £139, 1GB £189, 2GB £575

4GB £850, 9GB £1750

Graphics Tablets



ArtPad II £ 169

A5 size £ 299

A4 size £ 549

A3 size £ 799

A2 size £ 1599

Bundles available 'The Big Picture' or Studio24
NEW tablet software & ArtWorks Pressure Tool
ALL INCLUDED !

Eesox Tel/fax: (01954) 212263
Suite 8c, Newton House, 147 St. Neots Rd
Hardwick, Cambs CB3 7QJ
email: eesox@cityscape.co.uk
www: http://www.gold.net/users/ej74/
All prices exclude VAT and postage

MULTI-MEDIA UPGRADES

Rise PC 600 Early series

Quad Speed CD Rom Drive

16 Bit Sound Card

Pair of Mains Powered

Active Speakers

All Cables

Order code: MULPAC-01

£199.00
+VAT (£233.83 inc VAT)

Rise PC 600 Later series

700 & 7000

Quad Speed CD Rom Drive

Pair of Mains Powered

Active Speakers

All Cables

Order code: MULPAC-02

£149.00
+VAT (£175.08 inc VAT)

Phone for 6X & 8X Drives

Please note all our drives work at the correct speed in Rise PC

GLC Electronic Services

PO Box 5754,

Basildon, Essex SS16 6XA

Order Line
01268 540 040

Selling Acorn for 8 years

Completing The Jigsaw

Puzzled by the complexities of networking?

Atomwide can help you out. From a two workstation peer to peer network, to a very large site comprising hundreds of network points.

Atomwide have been designing and building networks for many years now. We can help you every step of the way, to ensure that your network is assembled correctly right up to the last piece in the jigsaw.

All Atomwide networks are designed to IEEE802.3 specifications giving you the choice of using both Acorn and other industry standard equipment. All installations, software training, and aftersales hotline support are carried out by our fully qualified team of experts.

Contact us now for a network quotation designed to meet your specific requirements.

A T O M W I D E

7 The Metro Centre, Bidge Road, Orpington, Kent, BR5 2BE.
Tel 01689 814500 Fax 01689 814501 Email: sales@atomwide.co.uk
<http://www.ant.co.uk/com/atomwide.html> FTP://ftp.ant.co.uk/

The making of the

Emil Brunavs explains how the Atomwide jigsaw advert was created



Jigsaw advert

Commercial advertising is big business in today's fierce and competitive market place. Ideally, new and innovative eye catching advertisements should not only help sell products and services but also provide the reader with some entertainment value too.

So what has this got to do with the Atomwide Jigsaw advert? Well, not only was it voted best advertisement in the 1995 *Acorn User* Reader awards by you, it also helped sell a product which for some people held no true aesthetic value and, most important of all, illustrated the real potential of Acorn's Risc PC on which the advertisement was created.

It's important to put into perspective the technical requirements which your Risc PC should meet in order to work comfortably. I should point out also that the Jigsaw advert is in its entirety a bit image, which will occupy more memory space than an equivalent A4 sized picture built up using a mixture of vector graphics and bit images of the same resolution.

The actual size of the image will give an estimate of just how much free hard disc space is required and in most cases how much memory is required too. The original master image of the Jigsaw advert was created on an A4 size canvas in 24 bits per pixel (bpp) at an x y resolution of 360 dots per inch (dpi).

In actual fact a 3mm bleed border was also added to the standard dimensions of the A4 page size. Resulting in a file size of 52Mb. A single file of this size is fine if you are only going to hold one copy of it. However in the professional world this is a

bit risky, so a backup copy is taken. Then throughout the duration of the project it is wise to keep copies of each major stage of the generation of the image, so that you can be flexible and at any time refer back to previous images.

By the end of the project it is not uncommon with a bit of good housekeeping to end up with over 500Mb of hard disc space used. Then there are the various image clippings which in the case of the Jigsaw advert used over 250Mb of hard disc space. So why do all these images take up so much hard disc space and is all this necessary?

It is important to know from the start how the final image is going to be printed and at what resolution. This will in turn determine the resolution and thus the size of output image. In order to obtain the best end results, the image resolution should at least match that of the printer, whether it is being output on an inkjet, laser, die sublimation printer or even onto separate colour film. If you are sending your artwork to a print bureau for the first time, it is wise to consult them on this subject first.

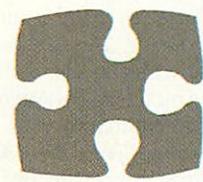
Decide the theme

You should decide upon some form of theme or idea of what the final image is going to



end up looking like. When dealing with the full size image, you spend a lot of time just waiting for the computer to complete certain operations. Saving a

50Mb image can take upwards of a minute, even if you are



using a fast hard drive and DMA SCSI card. Initially experimenting with small

low resolution doodles to give you some ideas can save hours of hard work should you abandon an idea while using the full size image.



The Jigsaw advert was built up from a collage of images taken from a Photo CD which Atomwide Ltd kindly supplied. Each image was originally taken by a professional photographer in a photographic studio on 3 by 4 inch transparencies. These were then digitally scanned and then saved onto Photo CD by a professional imaging company. Until you have seen first hand the results of a professionally shot transparency viewed off a Photo CD, the cost may seem a bit steep.

On average at around a couple of hundred pounds per image. Obviously this can



Creating real adverts

vary drastically depending on the subject matter and which photographers you use. Expect to pay up to £2,000 for a multi-subject photo shoot spanning only a couple of days. Good quality, high resolution images are used in all the glossy publications – take a closer look next time you are in a newsagent.

To accentuate perspective depth in the Jigsaw advert, I used four layers. The first of which was a cut-out section from a 400 series ethernet card, taken at four times the base Photo CD resolution. This formed the background to the whole advert. The second layer, an A3000 and A400 series ethernet card, network tap socket box and Risc PC keyboard were used – all at base Photo CD resolution.

Adding the individual components of the second layer on top of the first layer was achieved by cutting the images out of their backgrounds and pasting them on top of the first layer. In practice, using Spacetech's Award winning *Photodesk*, one can use the very powerful sampling tool to either spray or brush on the parts of the image that are required.

Using a combination of the airbrush and Adjust button undo feature, a very realistic junction between the subject in layer two and its new background in layer one can be achieved. Alternatively the use of a mask and the magic wand tool, can in most circumstances produce the same results. Although the latter method is by far the easiest and quickest, it is sometimes impossible to use. As the almost convincing flames emerging from the underside of the 400 series ethernet card illustrate.

Initially, I experimented to find the best and quickest process, using a small, low resolution test image. The full size image can take some while to move about the screen, even if you do have 64Mb of DRAM and 2Mb of VRAM fitted to your Risc PC. Alternatively, using *Compo* from Clares, it is possible to arrange the individual objects over the background until the correct positioning has been achieved.

Lighting the way

Before committing to the full size image, I adjusted the relative focal depth of layer one by blurring it slightly. Making the objects in layer two stand out more against their new background. Note also the significance of the effective ambient lighting on the objects in layer two. This is a very subtle but powerful effect which can be used when creating realistic-looking collages.

Where possible the brightest light source should be from one direction only. In the Jigsaw advert the light is mainly emanating from the top of the page. To coincide with this, I have, using an airbrush, added a drop shadow on the keyboard under the A400 series Ethernet card. Although this is mostly covered up

when Layer four is added, one would subconsciously notice the drop shadow's absence.

The selective oblique angles of each object in layer two were deliberate, so that they did not clash geometrically when the jigsaw emboss and text were added to the image. If you are involved with the original photo shoot, you should be aware of the lighting, perspective and camera angles, even at this early stage, as you see, it will help in generating useful photographs for use in this context.

Layer three is the jigsaw emboss shown in the second picture. Unfortunately on the Acorn platform algorithm programmed mathematical effects processes do not exist. So I had to shade every curve by hand. The curves were originally created using Computer Concept's *Artworks* application. Hand-drawn with the Freehand drawing tool and adjusting the Accuracy level it was possible to create a jigsaw-type pattern, then rotating and copying the pattern several times, ending up with a matrix of jigsaw like pieces all grouped together.

This matrix was saved out as a Draw type file and then imported into *Photodesk* as a mask. After some considerable fiddling with the resizing of the matrix until it completely filled the page and the pieces were of the correct size and in the right place, the mask pattern was then rendered on top of the image.

Then in order to use the mask effectively for the shading, I used the magic wand to fill in every other jigsaw piece with a solid mask. I could then shade all the exposed areas without contaminating adjoining jigsaw pieces.

Then invert the mask and repeat the shading process until all the jigsaw pieces were shaded. Shading was achieved by using a set of custom-sized air brushes and the black and white colours from the colouring effects panel.

Cutting the pieces

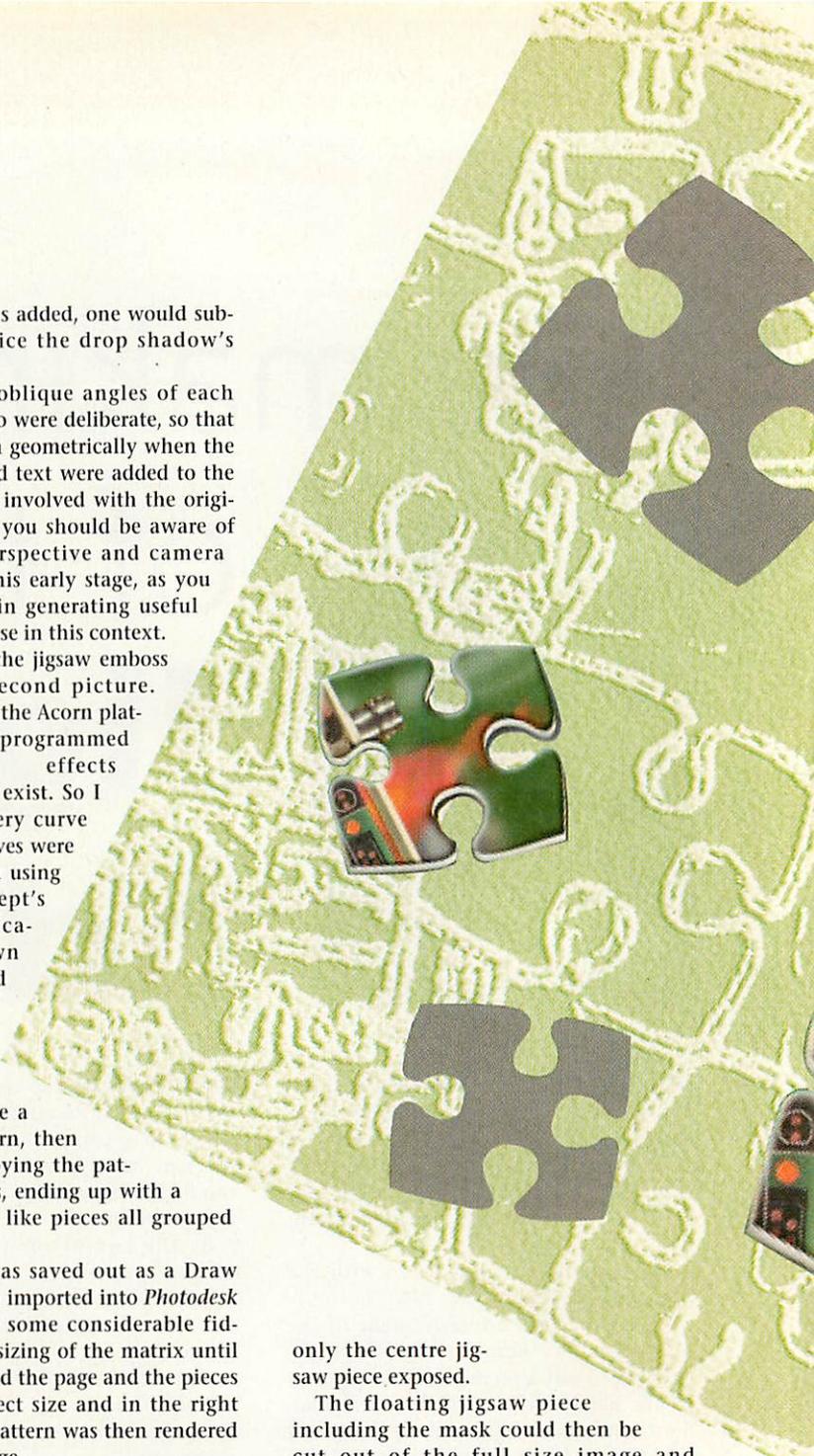
To create the floating single jigsaw piece I needed to take a cut out, including mask, from the main image and manipulated it on a separate canvas. Remember that the mask which I had created, could be inverted to expose or mask off alternating jigsaw pieces but I needed to manipulate only the single jigsaw piece which was to be the centre of the cut out and not the adjoining jigsaw pieces. So I masked off all the adjacent exposed jigsaw pieces leaving

only the centre jigsaw piece exposed.

The floating jigsaw piece including the mask could then be cut out of the full size image and processed separately. The side effect of using a mask when cutting out a section of image is that the parts of the image which are masked out become plain white in the cut out section, exactly what I wanted.

The processing involved rotating the jigsaw piece including the mask to the required angle. A copy of this stage was taken and the canvas was then filled with plain white, leaving only the jigsaw shaped mask. I then, with the use of the mask and cloning effect, pasted only the white shape of the jigsaw piece back onto the full size image.

Then again with the help of the mask and cloning effect, pasted the jigsaw piece on top of the white piece, slightly offset to the top left. By subtly shading the white extremities with black, the floating jigsaw piece now looked as if it had some depth to it. Finally spraying on a drop shadow enforced this effect. To complete the whole jigsaw effect I filled the hole which the single jigsaw piece came from with a neutral pattern colour.





rendering it as part of the full size bit image. Firstly the text content can be amended quickly and easily – very useful as the client will always want to make some minor adjustments just before you want to send the artwork off to the printers. Secondly, during the print process, because the text is formed by font definitions, you will obtain the best possible quality and resolution, resulting in crisp and sharp readable text.

There is one restriction which is inherent in document processors which do not use virtual memory or the Risc PC's dynamic memory allocation slot, which *Impres-*

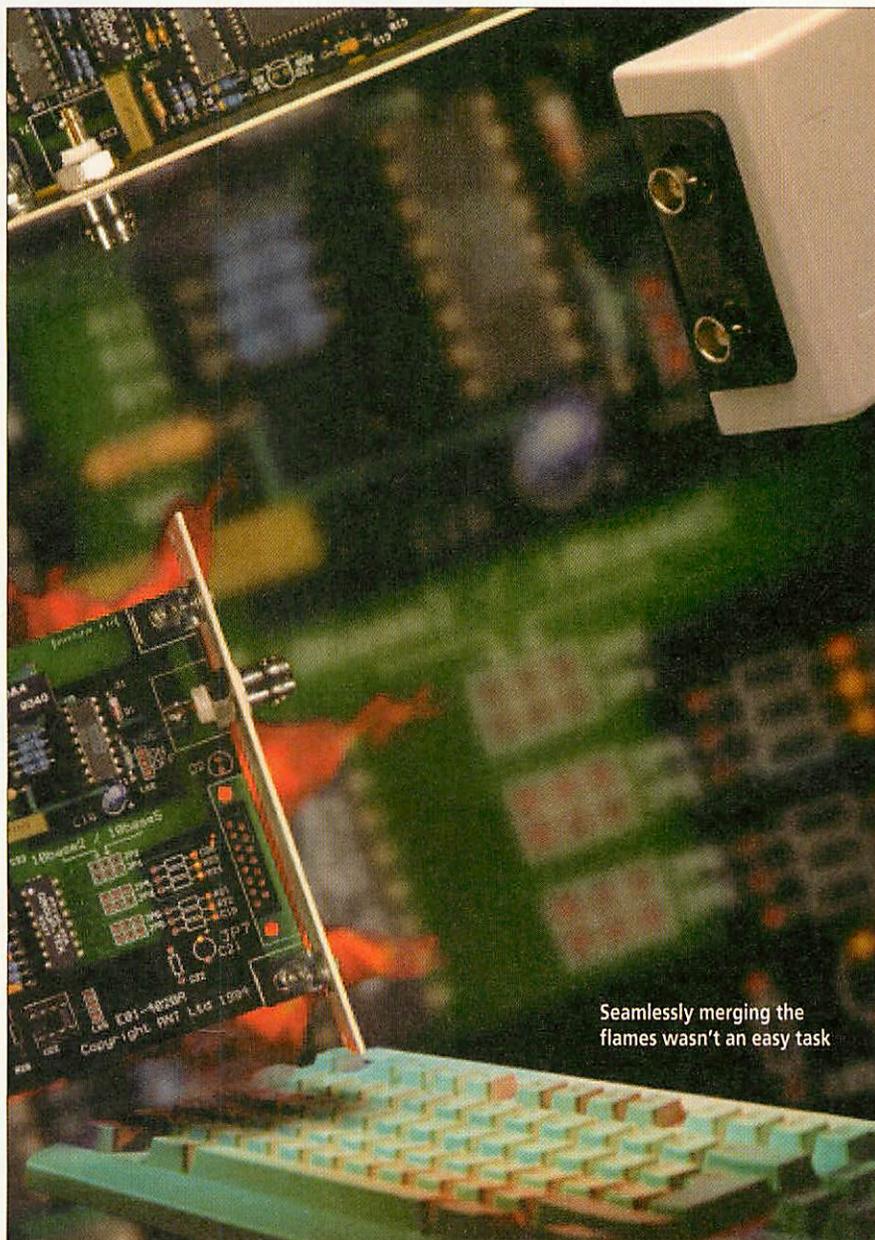
sion Publisher suffered from when the Jigsaw advert was created: The document cannot exceed 28Mb in size. Considering that the full size image was 52Mb in size I had a choice to make, either render the text as part of the bit image or reduce the dpi of the bit image to fit into the 28Mb limit and use font defined text.

I opted for reducing the dpi resolution of the bit image so that it fitted the 28Mb limit and kept the flexibility of last minute editable text. The latest version of *Impression Publisher* supports dynamic memory and when used in conjunction with Clares *Virtualise* application which extends the functionality of the dynamic memory area to virtual memory on hard disc, extremely large images can be imported into *Impression Publisher*. Make sure your print bureau can cope with this though – but that's another **AU** story.

The final layer consisting of the text was dealt with in two ways. The title at the top of the page and the Atomwide logo at the bottom were created as part of the rest of the bit image. The remaining text was generated and layed out using Computer Concept's *Impression Publisher*. The full image was then inserted into a frame in the same document.

The Atomwide logo at the bottom of the page was a spin off from the experimentation I did when designing their current header logo on the Atomwide Web pages. The original plain black and white draw file was rendered as a mask onto a plain white canvas. Then using the air brush tool and the emboss effect, I sprayed over the masked off lettering which produced the strange-coloured effects on the letters. Using the air brush again and black colouring effect, with inverted mask, I sprayed on the black rubbing type effect. Getting the colour depth just right, so that it is not too dark or too light, is plain trial and error.

Using a document processor for the text content has two major advantages over



Seamlessly merging the flames wasn't an easy task

Offer open to Acorn User readers only

A guide to **education** for 3-11 year olds

Parents & Computers



You can buy the next issue of **Parents & Computers** for only **£1**



All you have to do is send off the coupon to the address below and we will send you the next issue of this outstanding magazine for just £1.

Parents & Computers is essential reading for anyone with children concerned about how computers are used in school, standards of education and how you, the parent, can make a real difference.

All our writers are teachers, specialists in specific areas – but above all parents. They review the latest education packages as well as the computers. They will give you advice on how to make the most of the packages you've already got and what to look out for or avoid from the vast array of education and edutainment programs. But don't take our word for it, see for yourself for just £1.



Parents **£1 Offer** & Computers

Please send me the next issue of Parents & Computers. I enclose £1 (coin or cheque/postal order made payable to IDG Media)

Affix coin here

Name

Address

.....

Tel



I don't wish to receive any additional promotional materials.

Send to: Parents & Computers, £1 Offer, Media House, Adlington Park, Macclesfield SK10 4NP.



GAME SHOW

Following the *Adventure-land* article that appeared in February's issue of *Acorn User*, I've received a great response from readers who were looking out for more interactive fiction in which to immerse themselves. I'm aware that this subject has suffered from a recent lack of coverage, but I'm pleased to announce that Graham Nelson has just joined the *Acorn User* team.

Creator of the *Inform* programming language and author of two particularly popular games, he'll be covering all aspects of the subject from hints and solutions to design ideas so if you're harbouring any deep questions about interactive fiction, now's the time to get them answered – send them to Graham here at the Game Show.

Games News

I've received another dollop of information from Paradise about its forthcoming game, *Inferno*. As I mentioned last month, your task is to extinguish the raging blaze that's



Kalkazor: Atmospheric graphics add to this classical fantasy text adventure

consuming a nuclear power station before it goes critical and takes half of the planet with it. Various upgrades are available, ranging from the all-important security passes to give you access to hidden areas to laser bonuses which allow you to protect yourself against the security droids patrolling the complex.

I'm told that the game will run at 50 frames a second, even on ARM 2 based machines, and the good news is that it will be released as budget software at a price of £9.99, so it shouldn't make any large holes in your wallets. If you want to get in touch with the Paradise team, you can write to them at 57 Beecham Berry, Brighton Hill,

Basingstoke, Hants, RG22 4PB.

Although this next game is more in Graham's line of expertise, I'll mention it here because it's still in the processes of development. Written by Max Palmer, *Kalkazor* is a classical fantasy text adventure with a healthy dose of graphics, and is written using the ALPS adventure system.

The game opens in the midst of a war in which the dark forces have been slowly gaining the upper hand – it's rumoured that the great magician Kalkazor would be capable of vanquishing the demons' power.

However, he's not much use at the moment, mostly because he's currently made of stone due to a rather crafty

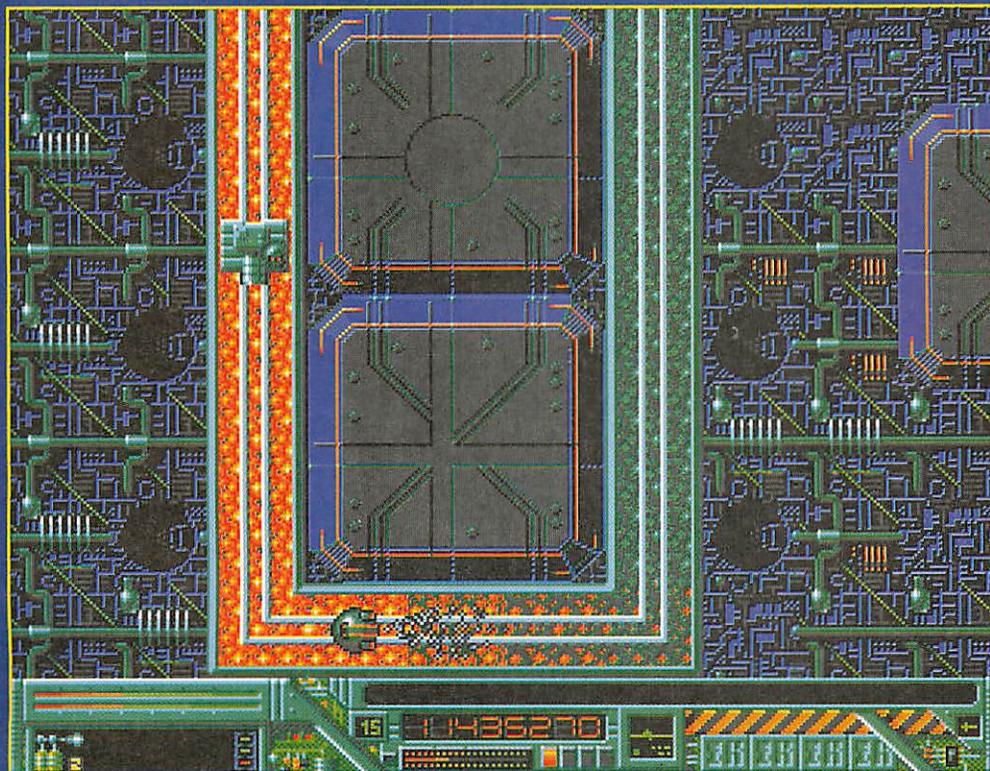
trick that was played upon him. It falls to you to seek out the sorcerer and restore him to the land of the living, so that he might turn the tide of the war and prevent the demons from conquering the land.

I've had a brief look and I've liked what I've seen – the room descriptions are full of detail and the graphics add a good atmosphere. I'll send this on to Graham for his perusal and we'll let you know when it's close to being released.

TBA are going from strength to strength with their 3D graphics engine, TAG. The original version has been upgraded substantially since their last game, *The Cobalt Seed*, and there are plans to boost the system further to cope with any number of colours in any resolution, Gourard and phong shading as well as textured surfaces and translucency. They also claim that the system will take advantage of any extra processors your computer might have in order to boost its graphics capabilities.

I have to confess that I'd like to see this in operation – does anyone out there own a machine packed to the brim with ARM700 chips yet? Finally, it turns out that the two games I mentioned last month, *Merp* and *Mirror Image*, will be sold together in one box. TBA will also be releasing Peter Ottermann's *Proposal* in the near future, and they're working on a *Doom* clone, a racing game and a title in the *After-Burner* style named *Acceptable Rate of Loss*.

All three will use TAG version 1.5 so should show significant graphics improvements over their earlier

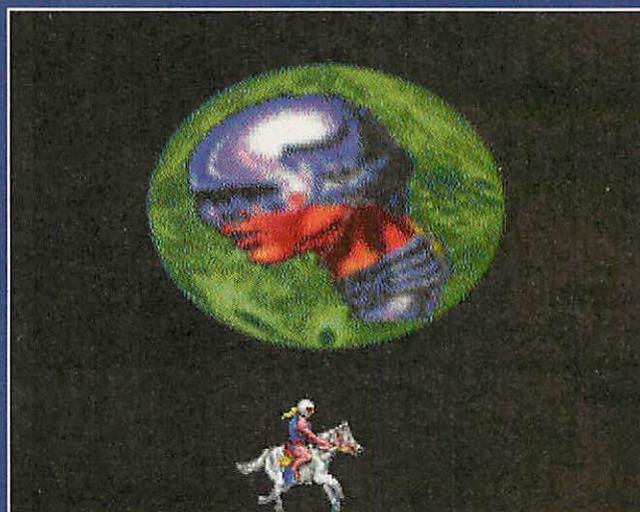


Putting a damper on the situation in *Inferno*

Adventure games



Cybermoch: Just ladders and levels?



- not quite

products. TBA have an e-mail address, so if you want to ask them for information or send feedback on their games, you can contact them at Martin@tbalond.demon.co.uk.

One last bit of gossip – I've been talking to the people at Eclipse, and it turns out they're quite keen on the idea of creating a CD-ROM version of *Darkwood* – so Ecklebert the wizard might be making a reappearance. I've heard a few players mention that they thought the game's landscape was a bit small, so if the CD version goes ahead it could give a welcome boost to the playing area and the range of puzzles it presents. As soon as I get any more details, I'll pass them on.

The New Generation

Geoff Holland from Generation Design has just sent me a copy of *The Last Cybermoch*, their latest product, along with a demonstration of *Sea Trek*, a 'collect the coins' game currently under development.

The Last Cybermoch is a platform game at heart, and involves the main character leaping from ledge to scrolling ledge while avoiding, or obliterating, the aliens which happen to get in the way. The plot tells the story of the near destruction of the Cybermoch race, and follows

your race for survival as you try to escape the planet before it explodes. There's an energy meter that drops throughout the level, and you have to replenish this as you progress by shooting blocks and collecting the apples that fall from them.

The targets are arranged in groups here and there, and when they're like this they have to be shot in sequence to proceed. Geoff and his team have included several twists that they hope will keep players interested – in the later levels, for instance, the blocks that contain the apples are invisible and a good memory of the earlier sections is required.

The gameplay is straightforward, although the control of the character can feel a bit clumsy at times. The scrolling of some of the objects, such as the horizontally sliding platforms that crop up every now and again, doesn't feel quite right – for instance, as you leap towards one of these moving ledges in order to traverse a chasm, it appears to slow down, and this can throw your timing out.

The game costs £9.99 but a shareware demonstration version is available. Geoff Holland and the Generation Design team can be contacted at 2 Whitecliff Gardens, Blandford Forum, Dorset, DT11 7BU.

And finally

As I write this, I'm waiting for Eclipse's ecological strategy game *Global Effect* to sail through my letterbox, and next month I'll be presenting you with a full review – watch this space, as they say. As always, if you've got any playing strategies you

want to share or questions you'd like us to tackle, the address is the Game Show, Acorn User, IDG Media, Media House, Adlington Park, Macclesfield, SK10 4NP. For those of you with Internet access, you can also reach me by e-mailing azimuth@argonet.co.uk.

Problem Corner

I've had a letter from R. Atkins sitting on my desk for longer than I care to remember, and I think it's about time I dealt with it. He's having problems with *Cannon Fodder* in general and more specifically, 'In at the Deep End' on the ninth mission.

I could offer the built-in cheat mode at this point – choose the *Load Game* option and enter the word JABULA for a level skip feature – but it isn't particularly rewarding and so I'll turn to you to ask for help. If you consider yourself to be a Cannon Fodder veteran and you fancy sharing tactics with the rest of us, write in to the usual address and I'll compile a battle plan.

Many thanks to Eric Bowns for writing in with a solution to the problem faced by Gary Hughes in the Republic of Nauru. You may recall that Gary's computer was in danger of being hurled out of the window due to certain frustrations encountered with the BBC game *Labyrinth*. Eric has come to the rescue with an immortality poke, so if you want to take advantage of it, type in the following:

```
*LOAD Labyrin
?&3723 = &AD
CALL &5D00
```

That takes me back – in my earlier hacking days, I spent hours trying to find an infinite lives cheat for *Snapper*. Invariably, I ended up poking large and graceless holes in the program, and corrupted ghosts started walking through walls as Snapper himself wandered into the uncharted depths of the BBC's memory. Still, it was great fun – until the machine crashed.

The Teaser

How to begin? 'Welcome to Adventure' is the traditional greeting of such a game, at once both friendly and challenging, like an examiner's handshake before the driving test. Two lines of text later you may be stowed away on a submarine crash-diving to the ocean floor, or hanging by your fingertips from an Alp. If things are really bad, maybe World War III is about to break out.

Then there are the games which open on a facade. Everything appears normal enough, apart from the fact that all the first-class stamps on your letters are triangular and green. Your wife is not around and nobody seems to believe she ever existed. There's a fire station where the library used to be, and vice versa. What has happened to the world?

Those crises are at least hardly your fault. The subtler torment is to arrive in a quiet, Cézanne-painted meadow. The entrance to the old tin mine is not too far away, but only a fool would explore it alone – as the opening text makes perfectly clear. Whatever happens then is your own fault.

The people who make Star Trek call this moment the *teaser*, the scene jammed in

Graham Nelson, Acorn User's very own interactive riddler, starts off a new column dedicated to the noble art of adventure

before the opening titles in case our attention span won't stretch to 20 seconds of credits. This new column's teaser is of the first kind, throwing you, the reader, into a predicament. Your mission (should you choose to accept it) is to write a short adventure game for *The Grand Acorn User Interactive Fiction Competition*. Fame, glory and the opportunity to be published on our next CD ROM await plus a prize, currently undetermined.

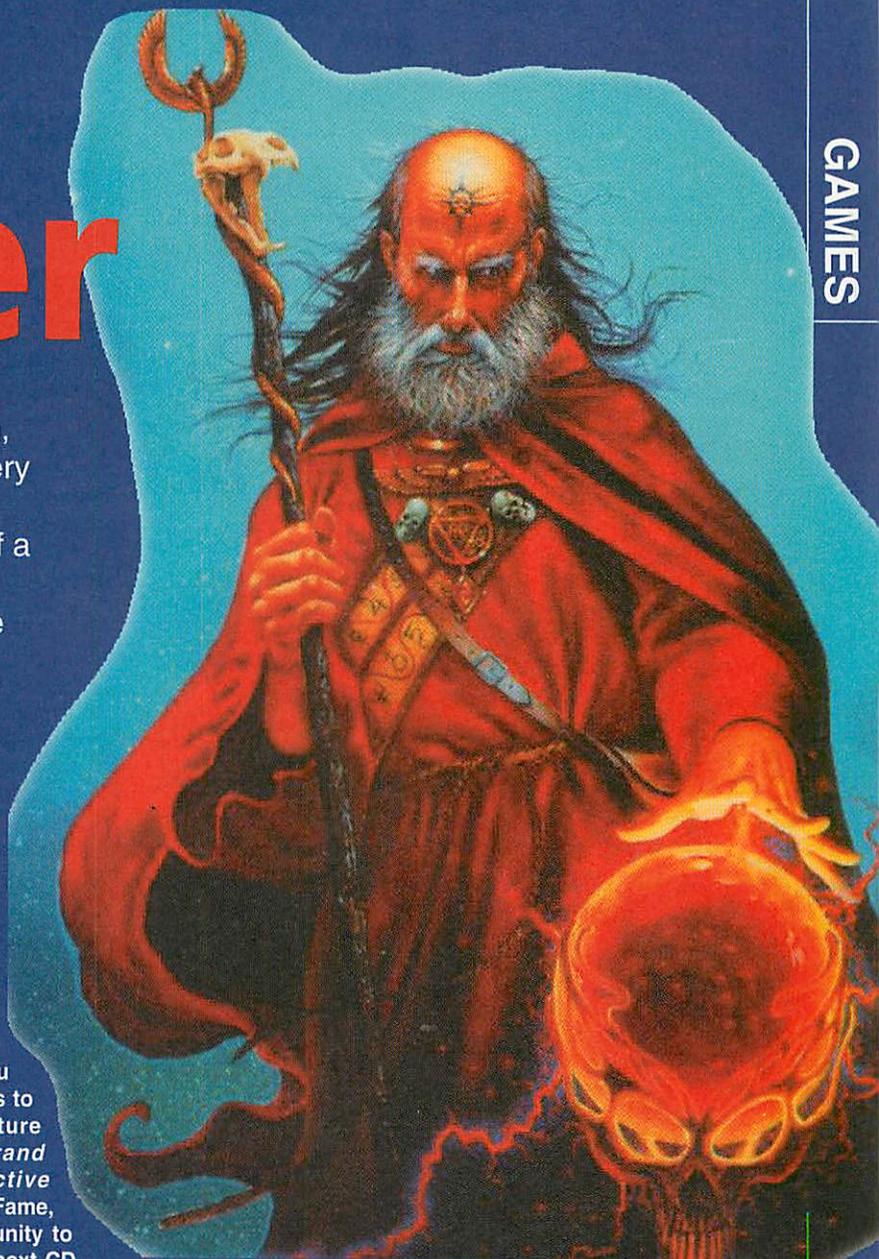
Adventure games have enjoyed a renaissance in the last three or four years. *Interactive fiction*, as the genre is now called, has a growing worldwide following almost unique in the way that it cuts across all models and

sizes of computer. Most games produced today can be played on almost any machine – for example, mine are written and debugged on my A5000, but Acorn owners are only a few percent of the players.

As with crossword

puzzles, there are secret addicts everywhere. One player I know is both blind and deaf. Others have learned English just to be able to play the games – though German, French, Norwegian and Spanish adventures have all been written – so there's an international community of players. I once wrote a scene set on Lenin's famous train journey to Russia in 1917, and a regular commuter on the Helsinki to St. Petersburg line wrote back to tell me what the train is like today. Apparently, it's almost exactly the same.

The text adventure is the



For more information

To join the Internet IF community, look up the newsgroups *rec.arts.int-fiction* for discussions on game design and *rec.games.int-fiction* for questions and answers relating to game play. The excellent worldwide archive for free games, software and information is the *if-archive* at the FTP site *ftp.gmd.de*.

If you haven't FTP access and would like a copy of the Inform design system, including example games and an interpreter to play the commercially available Infocom games under RISC OS, write to the Game Show including a stamped addressed envelope and a formatted disc and we'll send you the relevant programs.

The Rules of the Grand Acorn User IF Competition

- Write a short text-only adventure game. Any style or genre is allowed. We're looking for games that show originality as well as creating a good atmosphere.
- 'Short' might mean having 10 to 20 locations and something to do in each of them. A good player ought to be able to win through in one rainy Sunday afternoon.
- Don't use characters or situations from books still in copyright, or from films or television. A parody is legal if you change all the proper nouns.
- Your game must be playable on an Acorn machine under RISC OS – either send us an Inform-compiled story file or a stand-alone program which can be clicked on to run.
- Along with the game, send a file containing a solution – that is, a list of commands which will win the game if played through.
- You retain copyright on your work, but grant *Acorn User* permission to include it on a future cover disc or CD ROM. If you've used a commercial package, please check that you're allowed to distribute the run-time code in this way.
- Send your entries, by July 1 please, to the IF Competition, Game Show, *Acorn User*, IDG Media, Media House, Adlington Park, Macclesfield, Cheshire SK10 4NP. If you've got any questions, just drop us a line.
- Entries may also be submitted as unencoded archives by e-mail to aucompo@idg.co.uk put **IF Competition** in the subject line and ensure you include your full name and physical address.

first really new literary form to appear since the development of the modern novel three hundred years ago. The reader is the hero and the book's ending

is entirely down to the decisions he or she takes. As in Thomas Hardy's novels, 'character is fate' – but unlike the novel, interactive fiction can explore a host of *what if* alternatives. These are still very much the early years and most games are just written for fun. Like graphic novels, they're not quite taken seriously yet – still, they often succeed as literature despite themselves.

Typical Teasers

The place: Upper Sandusky, Ohio. The time: 1936. The beer: at a nickel a mug, you don't ask for brand names. All you know is that your fifth one tasted as bad as the first.

Leather Goddesses of Phobos: Infocom interactive fiction – a racy space-age spoof.

This first teaser belongs to *Leather Goddesses of Phobos* by Steve Meretzky, written in 1986 and about as racy as the cover of a 1930s issue of *Amazing Stories*. This is a classic *something's about to happen* teaser, and sure enough our player is about to be abducted by Martians. Oddly enough, NASA spent last month test-landing its new Mars Pathfinder probe – at Sandusky, Ohio.

It's become a matter of pride now not to give up. That tourist map of Paris must be up here somewhere in all this clutter, even if it has been five years since your last trip. And it's your own fault. It looks as if your great-grandfather was the last person to tidy up these lofts...

Curses – An Interactive Diversion

Regular *Acorn User* readers might remember my own *Curses*, written in 1993 and included on the August 1994 cover disc. This time the teaser is of the 'here's your mission' type – you have to find a tourist map, which sounds easy enough. But the first of many diversions has arrived; why not explore the lofts?

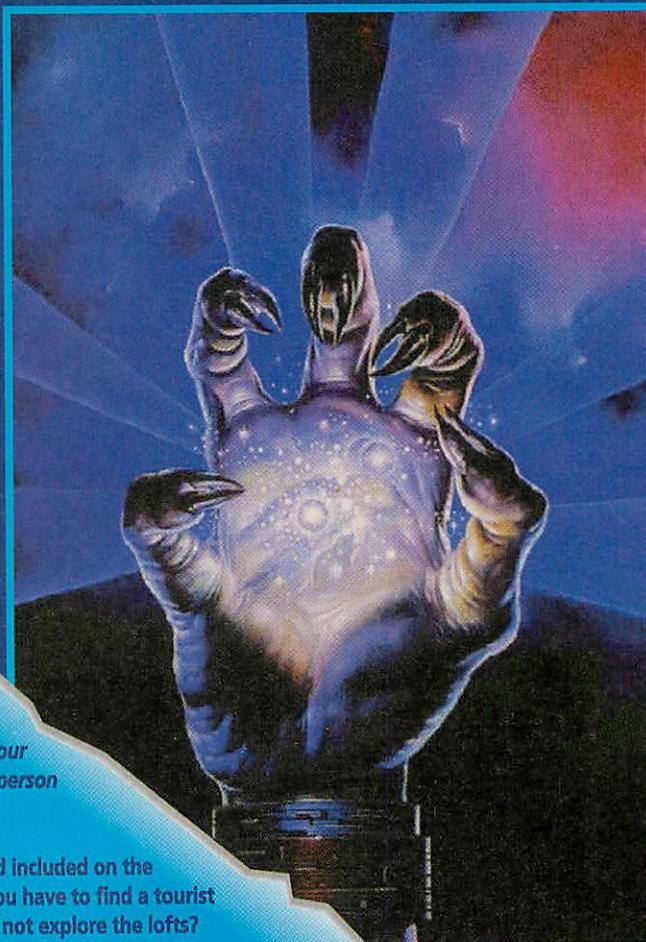
But why write one? There's a real satisfaction of creating a world which other people come to believe in – and in building it to last. Many adventures fifteen to 20 years old are still played, at a time when every computer then existing is now obsolete. Many games will still be here 20 years from now – technology does not overtake them. Since the early 1980s, every practical computer has had all the power and memory a text adventure could sensibly need. Today, a game which may take a player months to solve will fit into less memory than, say, a typical Risc PC font cache. No quad speed CD Rom drives are necessary here.

On another point, and quite unlike most games of today, no budget is required to make something with a professional look and feel. No teams of composers, graphic artists, actors or cameramen are needed: only

a story, the confidence to go ahead and program it, and some friends willing to play-test the result for you.

How should you begin, then? It saves some time and effort to use an adventure design system – a programming language tailor-made for putting games together, such as Alpine Software's *ALPS*, or my own system, *Inform*. The latter is one of the two design systems currently in widest use, the other – called *TADS* – being unavailable for RISC OS.

However, you can always code up the standard rules of play yourself. My own habit is always to start a new game by writing the teaser, that opening sentence or two of text. This sets the mood for what will follow and after that, perhaps a trip to the town library is in order. Soon it's a matter of laying the foundations. That's the subject of next month's column, so here ends the teaser.



Late Night Opening
Wednesday & Thursday
till 7.30pm

Open Sunday
11am to 4pm



FIRST
COMPUTER CENTRE

HOWTO ORDER

Order by telephone quoting your credit card number. If paying by cheque please make payable to: "FIRST COMPUTER CENTRE". In any correspondence please quote a Phone Number, Post Code & Dept. Allow 5 working days for cheque clearance.

SHOWROOM ADDRESS:
DEPT. ACU, UNIT 3, ARMLEY PARK COURT, STANNINGLEY RD, LEEDS, LS12 2AE.



LOW COST DELIVERY

- 2-4 Week Days £3.00
- Next Week Day £5.00
- Saturday delivery £8.50

Delivery subject to stock availability

- All prices exclude VAT @ 17.5%
- Large showroom with parking
- Multi-million pound company
- Overseas orders welcome
- Educational purchase orders welcome

OPEN 7 DAYS A WEEK

Lombard Finance available

Prices are correct at the time of going to press. Please check our latest prices before ordering. All sales are subject to our standard terms & conditions (copy available upon request). E&OE

Telephone 0113 2319444

24 HR MAIL ORDER SERVICE FAX: 0113 231-9191
NEW! BBS Sales & Technical line TEL: 0113 231-1422

E-Mail sales@firstcom.demon.co.uk
www.demon.co.uk/firstcom

AUTHORISED REPAIR CENTRE

We offer a FREE quotation on your Acorn or any peripheral (monitors, printers etc). A delivery tariff of just £5.00 is charged or alternatively you can visit our showroom. We can also arrange a courier pickup at an additional cost of £11.00.



Hardware

Acorn Risc PC's

0% Finance Acorn 20/20 Finance
Interest Free Credit 20% Deposit 20 Monthly Payments

PC700			
5Mb HD425 & AKF60	£1355.00		
5Mb HD425CD & AKF60	£1465.00		
5Mb HD425 & AKF85	£1630.00		
5Mb HD425CD & AKF85	£1740.00		
10Mb HD850 & AKF60	£1685.00		
10Mb HD850CD & AKF60	£1795.00		
10Mb HD850 & AKF85	£1965.00		
10Mb HD850CD & AKF85	£2075.00		
PC600			
4Mb HD425 & AKF60	£1140.00		
4Mb HD425CD & AKF60	£1250.00		
4Mb HD425 & AKF85	£1420.00		
4Mb HD425CD & AKF85	£1530.00		

Quad Speed CD drives from £55.00
Six Speed CD drives from £107.00
16 Bit Sound Card £60.00
Extra Slive Case £99.00

PC Cards With Risc PC	Separately
SX-33 £99.00	£199.00
DX2-66 £149.00	£249.00
DX4-100 £199.00	£299.00
5x86 £399.00	£499.00

Acorn A7000 Systems

A7000 2Mb HD425 & AKF60 £795.00
A7000 4Mb HD425 & AKF60 £870.00
A7000 4Mb HD425CD & AKF60 £1126.00

Microvitec I438 Monitor

.28 dp, Multi-Sync
Only £225.00

Software

Entertainment Software	£22.00	Titler	£77.00	Bookshelf 95	£24.00
Alone in the Dark	£22.00	Touch Typing	£29.50	Dynasaur	£22.00
Black Angel	£22.70	Turbo Driver/BJ/Eps/HP	£40.00	Encarta 95	£19.00
Cannon Fodder	£19.50	Educational Software		Golf	£19.00
Crystal Maze	£17.00	Badger Trails	£36.50	MSDOS 6.22 & Windows	£69.00
Cyber Chess	£22.70	Chrystal Rain Forest	£36.50	Windows for Workgroups	£44.00
Darkwood	£25.50	French Learning Series	£16.60	Works 3 for Windows	£23.00
Fire & Ice	£20.50	Noddy's Playtime	£17.50	Reference	
List Lore	£22.50	Oxford R/Tree Stage2	£35.00	Chambers Dictionary	£31.00
FTT Formula 2000	£20.00	Oxford R/Tree More	£35.00	Granger Encyclopedia	£18.00
Global Effect	£27.50	Oxford R/Tree Stage3	£35.00	Red Shift Astronomy II	£26.00
High Rise Racing	£19.00	Rosie & Jim (Sneezes)	£10.00	Dorling Kindesley	
Lemmings/More RiscPC	£22.81	Rosie & Jim (Duck)	£10.00	Encyclopedia of Science	£33.00
Rick Dangerous	£13.00	Talking Anim. Alphabet	£26.00	Encyclopedia of Nature	£33.00
Saloon Cars Deluxe	£21.50	10/10 Dinosaurs	£12.00	History of the World	£33.00
SimCity 2000 (A5000)	£28.00	10/10 Driving Test	£12.00	1st Incred. Dictionary	£24.00
SimCity 2000 (RiscPC)	£29.00	10/10 Early Essentials	£12.00	PB Birthday Party	£23.00
Simon the Sorcerer	£29.70	10/10 Essential Maths	£12.00	Stowaway	£24.00
Star Fighter 2000	£22.55	10/10 Essential Science	£12.00	The Way Things Work	£33.00
The Real McCoy 2, 3 or 4	£21.00	10/10 English	£12.00	The Ute, Human Body	£31.00
Time Machine	£13.50	10/10 French	£12.00	The Ultimate Sex Guide	£24.00
Virtual Golf	£21.27	10/10 German	£12.00	Virtual Reality Drive	£24.00
Wavelength	£12.50	10/10 Junior Essentials	£12.00	Virtual Reality Cat	£23.00
Wolfenstein 3D	£22.00	10/10 Maths Algebra	£12.00	Virtual Reality on PC CD-ROM	£24.00
Application Software		10/10 Maths Geometry	£12.00	Mortal Combat	£23.00
Arc Comm 2	£46.00	10/10 Maths Numbers	£12.00	Will. Shatners TEK Wars	£23.00
Arc Fax 1, 12	£32.00	10/10 Maths Statistics	£12.00	Monopoly	£24.00
Arc Comm 7	£56.50	10/10 Spelling	£12.00	Command & Conquer	£28.00
Artworks 1.54	£130.00	10/10 Education series		Panic in the Park	£25.00
Hearsay II	£63.00	Any 2 for £21.00		FIFA 96	£29.00
Home Accounts	£27.00	PC CD ROM Software		Frederic M. Stein	£33.00
Copernicus Astronomy	£25.52	Microsoft Titles		Encarta 96	£33.00
Impression Style	£61.50	Schubert	£23.00	Actua Soccer	£25.00
Impression Publisher	£100.00	Strauss	£23.00	Deconstruction Derby	£27.00
Sibelius 6 Version 3	£149.00	Stravinsky	£23.00	Hexen	£26.00
Sibelius 7 Student ver3	£464.00	Ancient Lands	£33.00	Rebel Assault	£10.00
Sibelius 7 Version 3	£851.00			PGA Golf 96	£29.00
				Worms	£24.00

Tabby



only £58.00

The amazing new graphics tablet for the Acorn range of Computers, software developed by First Computers. 94% rated in Amiga Shopper. Requires Riscos3.1

Acorn Spares

Acorn Mouse (Original) £25.50
A5000/A4000 Disk Drive £69.50
A3020 Disk Drive £86.00
A3010 Disk Drive £86.00
A3000 Disk Drive £69.50
RiscOS 3.11 Full Upgrade £74.00
RiscOS 3.11 No Manuals £37.50
MIDI Max (Risc PC & A5000) £68.00
MIDI User (A30x08 & A4000) £49.00
MIDI Cables (x2) £5.11
Repair & Fitting Service Available

2.5" H/Drives

CONNER FUJITSU Seagate

80Mb 2.5" IDE £76.00
130Mb 2.5" IDE £94.00
170Mb 2.5" IDE £98.00
250Mb 2.5" IDE £119.00
340Mb 2.5" IDE £153.00
540Mb 2.5" IDE £200.00
A3010/3000 IDE Card £57.00
*When Bought With Drive

3.5" H/Drives

Quantum TOSHIBA Seagate

540Mb 3.5" IDE £140.00
1.0Gig 3.5" IDE £176.00
245Mb 3.5" SCSI £97.00
540Mb 3.5" SCSI £127.00
1.0Gig 3.5" SCSI £190.00
A3/A400 IDE Card £69.00
A5000 2nd H/Drive Kit £17.00

Memory Modules

RiscPC/A7000 4Mb £59.00
RiscPC/A7000 8Mb £123.00
RiscPC/A7000 16Mb £270.00
RiscPC/A7000 32Mb £676.00

RiscPC/VM Trade 2Mb £145.00
With I MB Tramp In £105.00
A3000 1Mb to 2Mb £56.00
A3010 1Mb to 2Mb £40.00
A3010 2Mb to 4Mb £89.00
A3020/A4000 to 4Mb £82.50
A5000 2Mb to 4Mb £82.50
Part X. your old Memory Call...

Printers

Canon

Canon BJ30 £155.00
Compact Portable mono printer, 30 page ASF built-in.
Canon BJC70 Colour £239.00
High quality Portable colour printer, 30 page ASF.
Canon BJ200ex £170.00
High speed, high quality mono printer, virtual 720 dpi.
Canon BJ210 £195.00
Mono Printer, 720x360dpi, colour upgradeable.
Canon BJC4100 Colour £243.00
High quality colour, super fast mono printing 720 dpi.
Canon BJC610 Colour £354.00
New Enhanced, dedicated colour printer, 720x720 dpi.

HEWLETT PACKARD

HP600 £199.00
Colour upgradeable mono inkjet/ Col. Kit £21.80
HP660 Colour £282.00
New colour inkjet from HP.
HP 5L laser printer £372.00

EPSON

Epson Stylus Colour II £282.00
720 dpi, 100 sheet ASF, full colour printer
Epson Stylus Colour IIs £207.00
720 dpi, 100 sheet ASF, colour or mono printer
Epson Stylus 820 £173.00
720 x 720 dpi, Mono printer, upgradeable to colour

CITIZEN

ABC Colour printer £120.00
simple (as easy as ABC) to use 34 pin printer. Comes as standard with 50 sheet Auto sheet feeder.
Tractor feed optional at £10.00

OKI

OL600ex £323.00
LED laser printer, 6 pip/m, 1Mb of Ram.
OL610ex £409.00
LED laser printer, 6 pip/m, 2Mb of Ram.

star MICRONICS

Star LC1009 pin Colour £108.00
9 pin colour printer, 8 NLQ fonts, 180 cps draft.
Star LC909 pin mono £90.00
9 pin mono printer, ASF built in, push tractor optional.
Star LC24024 pin mono £100.00
24 pin mono printer, 192 cps draft, with ASF built in.
Star LC240C24 pin Colour £119.00
24 pin colour printer ASF built in, 4 LQ fonts.
Star SJ144 Colour £196.00
Stunning affordable colour thermal transfer printer, low running costs, 3 pip/m mono, 1.4 pip/m colour.

Accessories

Printer Switch Box 2 way £11.00
Printer Switch Box 3 way £15.30
Printer Stands (Universal) £6.80
1.8 Metre printer cable £4.30
3 Metre printer cable £5.90
5 Metre printer cable £7.70
10 Metre printer cable £11.00
SCSI Internal Cable £7.70
SCSI Cable 25D-50Cent £8.50

MULTI COLOUR Disk labels

500 £6.00
1000 £8.50

Re-Mark-It disk labels x10 £2.10
10 Capacity box £0.90
50 Capacity lockable box £3.40
100 Capacity lockable box £4.70
*90 Capacity Banx box £9.40
*150 Capacity Posso box £17.90
100 Capacity CD holder £4.30
*add £3.00 delivery if purchasing just one Posso or Banx box. Normal delivery when purchased with other product or when buying 2 or more.

Multi Media/CD ROM

Delivery £1 per title or £3.50 for 4+

Acorn

Mitsumi FX600 £107.00.....6 Speed
Goldstar R540B £55.00.....4 Speed
Mitsumi FX400 £59.00.....4 Speed
Dual IDE cable £8.00
Compatible with all new RISCPC's (RISCOS 3.6 only)

CUMANA

Indigo CAA340i Quad Speed CD Drive £191.00
Indigo CAA340ia Quad Speed CD Drive £239.00
Indigo CAA300i Dual Speed CD Drive £125.00
Indigo CAA300ia Dual Speed CD Drive £199.00
Proteus Quad Speed Read/Write CD ROM £546.00
Proteus with Cumana SCSI Controller £689.00
Oscar (Parallel) CD Drive £215.00

Acorn CD Software

Artworks £129.00
Artworks Clipart 1/2 £58.00
Cars-Maths in Motion £15.00
Childrens Micropedia £75.00
Creepy Crawls £47.50
Dictionary/Living World £47.00
Dun II £35.50
Goldlocks £39.00

Grannys Garden £30.00
Hutchinsons Encyc. £37.00
Oxford Reading Tree £39.00
PCCD 1 £21.00
PCCD 2 £21.00
PCCD 3 £21.00
Simon the Sorcerer £36.50
Photobase Landscapes £47.50
Space Encyclopedia £32.00
Understanding the Body £43.00

SupraFAX Modem

SupraFAX Modem 288

- Up to 115,200bps (+42bis)
- Silent & Adaptive Answer
- V34 Standard
- NComm Software
- Class 1 & 2 Fax
- Unique LCD Display
- Flash ROM
- 5 Year Warranty

only £170.00

SupraExpress 288

Only £149.00

- Up to 115,200bps (+42bis)
- LED Display
- V34 Standard
- NComm Software
- Class 1 Fax
- 5 Year Warranty

Supra modems are not BAPT approved, however they perform as well & often outperform BAPT approved modems. Supra Modems have a 5 year limited warranty.

US Robotics WE ARE PREFERRED USER DEALERS

Sportster Vi

- Class 1 Fax
- Personal Voice Mail
- Fax on Demand
- Call Discrimination

BAPT Approved

● 14,400 Data/14,400 Fax £95.00
● 33,600 Data/14,400 Fax £165.00

CourierV34+

£245.00 BAPT Approved
33,600 bps.

Consumables

Ribbons

Citizen Swift/ABC mono £3.40
Citizen Swift/ABC colour £11.00
Star LC90 mono ribbon £4.30
Star LC100/100 mono £3.10
Star LC100/100 colour £6.80
Star LC240 colour £11.90
Star LC240 mono £2.70
Star LC240 mono £5.10
Star LC24-10/200/300 Colour £11.90
Re-Ink Spray for mono ribbons £10.20

Ink Cartridges

Canon BJ10/Star SJ48 £17.00
Canon BJ200/230 £17.00
Canon BJ30 (3 pack) £11.90
Canon BJC 70 mono (3 pack) £9.40
Canon BJC 70 colour (3 pack) £14.50
Canon BJC 4000 colour (single) £14.50
Canon BJC 4000 mono (single) £6.80
Canon BJC 4000 mono high cap. £24.70
Canon BJC 600e mono high cap. £8.90
Canon BJC 600e colour £7.70
HP Deskjet colour £23.00
HP Deskjet double mono £21.30
HP Deskjet 660 double mono £22.10
HP Deskjet 660 colour £23.80
Epson Stylus mono £13.60
Epson Stylus colour £31.50
Star SJ144 mono/colour (single) £7.70

Disks

Bulk DSDD
10 x £3.00 100 x £25.50
30 x £8.50 200 x £46.80
50 x £13.60 500 x £101.30

Branded DSDD
10 x £4.30 100 x £30.60
30 x £11.00 200 x £54.50
50 x £16.20 500 x £121.70

Bulk DSHD
10 x £3.40 100 x £28.90
30 x £9.80 200 x £51.00
50 x £15.30 500 x £15.00

Branded DSHD
10 x £5.10 100 x £40.80
30 x £13.60 200 x £72.30
50 x £22.10 500 x £162.50

MOST OTHER MAKES AVAILABLE

PREMIER-INK Cartridge Refills

Save a fortune in running costs with your ink/bubble jet. Compatible with the HP Deskjet series, Canon BJ 02/08/130/200/330, Star SJ48, Citizen Project and many others. Full range of colours available.

Single refills (22ml) £6.00
Twin refills (44ml) £11.00
Three colour kit (66ml) £17.00
Full colour kit (88ml) £23.80
Bulk refills (125ml) £21.30

Printer repair specialists call for quote

Delivery for 2000 sheets £4.30 when purchased without

I wrote

Jason Tribbeck has written games, music software, half an Internet suite and a utility to give you longer file names on the Desktop, as David Matthewman finds out

that...

Waistcoats are a common sight on the VTi/Argo/Eclipse stands at Acorn shows. You'd think, therefore, that identifying Jason Tribbeck as 'the chap with the waistcoat on the VTi stand' would be no help at all. You'd be wrong.

Jason is always the chap with *the* waistcoat - the one that's loud enough to drown out the music from VTi's MIDI card, or Eclipse's latest game which coincidentally Jason also wrote. His first involvement came when VTi (then Vertical Twist) gave him some MIDI cards to play with and he wrote *MIDITracker*.

MIDI networks

Well, almost. Most people when they get MIDI cards use them for outputting music. Not Jason - he had a far better use for them; blowing the stuffing out of someone else at a computer across the room.

'The first thing that I did with the MIDI cards was write a multi-player tank game, for which I had a system called *MIDINet*. This allowed up to 32 machines to be connected together in a token-ring network using their MIDI cards (which were relatively cheap). At the local computer club we set up nine machines all playing each other on this tank game.'

Battling for Arrakis

After successfully converting *James Pond II* for Eclipse, Jason was let loose on *Dune II*, a game of which the source code alone ran to about 176Mb.

'I waited nine months before I gathered the courage and the strength to start doing it, and even then it took me three months to get the first version out. It's a big regret that we didn't get it ready for the Wembley show in 1994, but the first version was only completed in December. In fact, it was about six days before the last post for Christmas, and there was a huge effort to get the discs duplicated in time for everyone to get their Christmas presents.'

Unusually for the Acorn platform, a CD-ROM version followed. For this, Jason also had to write what amounted to a MIDI synthesiser for the music, because the

game was written for a PC Soundblaster card, and most people buying the game would not have MIDI cards in their machines. 'In theory,' says Jason, 'there's no reason why you can't take the code from *Dune II* and use it to play the input from a MIDI keyboard through the internal speakers, except that I've tried it and it doesn't work.'

Outside interests

Jason now has a set of C libraries that constitute a complete RISC OS development environment, which have been used for all his programs since *Talking Canvas Junior*.

It's called *RiscOSView*, and is based on a program called *XView* for X-Windows. It works on the principle of building up a set of standard libraries which can be used with any program. *RiscOSView* will be released as Freeware when Jason's finished it. It's currently about 20,000 lines of code, but may almost double in size when Jason adds support for the *Toolbox* modules in it.

Apart from software for *Eclipse*, Jason has written for other companies and for the Public Domain. He knocked up a label printer for Software 42 'in an evening', and himself runs a company called ARM Designs which is separate from Eclipse.



Jason Tribbeck attended the University of Essex and became an expert at the University's 18-hole frisbee course while working for VTi in his spare time. He vaguely remembers doing some academic work; at any rate they gave him a degree

One of the projects that he's designing for this company is a hardware-independent filing system. This has as its centre a processor on a card which controls the drive; the host operating system issues commands like 'delete this file' and the on-board processor does all the actual work.

This has two advantages: first, the host processor has a reduced load and second, the on-board processor can be sitting 'idle' for periods during which it can independently compress files on the hard drive in the background.

Perhaps Jason's most well-known product is a small PD application that he wrote one night 'to see if it could be done'. This allows you to have file names of up to 55 characters in Filer windows, useful for most people and an essential tool for Web designers.

'There was someone on one of the news-groups complaining about the 10-character file name limit in RISC OS. I thought about how you could do it, and the result was *LongFiles*. I released it and people seemed to like it - I don't use it myself, because I don't trust it. I know what it does, and some of the kludges aren't pretty...'

Jason and the Argonets

Jason's most recent project was the *Voyager* software for Eclipse's new venture selling Internet connections as Argo Online. Jason had already written a dialler to log on to his Demon account, which promoted him to the position of Internet guru at Eclipse, and he ended up writing far more than the dialler for *Voyager*.

'It looks like one coherent project, but there were six or seven programmers involved in it, and there's 27 'applications' in the suite, including all the configurations. I wrote about 13 of them - and a library that someone else finished up using - including the module that enforces standard error and password boxes on the rest of the program.'

Much of *Voyager* was based on existing PD software - the Internet stack is a cut-down version of the Freenet stack with the Ethernet card support removed - but about 80 per cent of it is original code. Reconciling the various programming styles of the people involved can cause a few problems.

The next release of *Voyager* will have printing built in, using printing code written by Jason in C. However, two of the programmers involved use BASIC, and are therefore having to bolt their code onto code written in an unfamiliar language.

Mars, the bringer of war

Over the next year, Jason will be working on a game called *WarZone*, similar in concept to *Dune II* but based on modern times using tanks, troops, helicopters, troop carriers and so on. The game's animation will

be designed on SGI SparcStation by Jason, with music done by Jason's brother using a title theme based on Mars from the Planets Suite by theme.

The game will be released simultaneously on Acorn and PC platforms, probably on a dual-format CD-ROM; most development will be done on the Arc, with the code then ported to the PC. At this

stage, development of *War Zone* has progressed just as far as painting and photographing some Airfix models of tanks, but expect more details of *War Zone* to start seeping out in a few months. Jason's even considering making it network friendly, so that you can play other people. Well, you've got to have *some* use for that MIDI card, haven't you? **AU**

Jason Tribbeck 'discography'

Early work

Ubiquitous: This was a 'sort-of-game' that Jason wrote at school, which allowed up to 15 players to shoot missiles at each other. It was called *Ubiquitous* for no better reason than that Jason had always wanted to write a game called that.

ETG: Officially called *Epic Trading Game*, but secretly *Elite-Type Game* for those in the know, this involved flying around between planets shooting spacecraft and buying and selling goods. Some early screenshots were posted to Arcade, but the game was never finished.

Work for VTi/Eclipse/Argo

MIDITracker and *Desktop Tracker*: These were two programs allowing you to play Tracker music files, a format which originated on the Amiga. *MIDITracker* allowed you to play the files through a MIDI keyboard and was Jason's first commercial program. *Desktop Tracker* was groundbreaking in that it allowed up to 16 voices and ran in the Desktop, and is still sold by VTi.

VTX-2000 synthesiser board: Jason designs PCBs in his spare time, and this was one of them.

Xenon II: The Desktop front-end only.

Robocod: Infamous because the Tracker player was rumoured to play a section of the music 'upside down', this was Jason's first full conversion, and a very successful game. The *James Pond* Thames Water project followed for Skillsware.

Dune II: Both floppy and CD-ROM versions.

Global Effect: Desktop front-end and password protection only.

Talking Canvas Junior and *Sonor*: Both of these work with VTi's Sound Byte parallel port sampler. *Sonor* is a powerful sample-editing suite and *Talking Canvas Junior* allows samples to be linked to pictures in a simple multimedia presentation.

Voyager: Jason wrote about half the modules and designed the software's 'look and feel'.

Work for other companies

James Pond Underwater Agent: Teaching children about the Thames Water Ring Main for Skillsware.

PD/Freeware

Guest: This was written a long, long time ago, and allowed you to have icons for all your applications on the icon bar at once without having the application in memory. It was written up for the sheer hell of it, and to scare Jason's Amiga-owning friends about the memory in his machine.

A laser harp program: Jason is a keen Jean-Michel Jarre fan, so this one was inevitable, really.

Longfiles: Allows up to 55 characters in a file name - this one was on the first *Acorn User* CD-ROM.

In the pipeline

RiscOSView: a RISC OS development library written in C, which Jason's used for most of his recent software.

Drivers for the IOmega Zip drives.

War Zone: An original game on CD-ROM, to be developed on both PC and Acorn simultaneously. (and a number of things we can't talk about yet).

VTi/Eclipse/Argo

Tel: (01243) 531194

Fax: (01243) 531196

E-mail: info@argonet.co.uk

WWW: <http://www.argonet.co.uk/>



Our "NEW demo/catalogue disc for just £1 or buy any pack and get our demo disc free.

EXCELLENT PD PACK OFFERS

- Games Pack 1 - Games Pack 2 - Games Pack 3
 NEW Games Pack 4 - Draw Clipart Pack 1
 Draw Clipart Pack 2 - *NEW* Draw Clipart Pack 3
 NEW Draw Clipart Pack 4 - Sound Sample Pack 1
 Sound Sample Pack 2 - Educational Pack
 Utils Pack 1 - Utils Pack 2 - *NEW* Utils pack 3

For Acorn Computers only

Each pack has three fully archived discs. One pack for £3.75 - Two packs for £7.20 - Three packs or more at £3.50 for each pack.

Educational Software

	Age	Price	
Around The World In 80 Days	9-12	£48.75	A free copy of Sherston's catalogue with many more titles is available on request for Acorn and other formats.
The Crystal Rain Forest *	8-11	£48.75	
Mission: Crystal Rain Forest 2 *	8-11	£48.75	
The Crystal Maze *	7+	£28.00	
Time Detectives Victorians	8-11	£48.75	* Demo disc available for £1
The Talking Animated Alphabet	3-6	£32.50	
Rosie and Jim Talking Activities *	3-6	£11.50	
Animated Numbers	4-6	£27.50	Official orders are welcome from UK education and government institutions.
Teddy Bears Picnic	4-7	£31.75	
Cambridge Talking Books	5-7	£43.50	
Oxford Talking Stories Stage 2	5-7	£43.50	Site licences are available. Please enquire for more details.
Oxford Talking Stories (A) Stage 2	5-7	£43.50	
Oxford Talking Stories Stage 3	5-7	£43.50	
Oxford Talking Stories (A) Stage 3	5-7	£43.50	
Naughty Stories Volume 1*	5-7	£59.25	Please make cheques payable to Five Star Marketing.
Naughty Stories Volume 2	5-7	£59.25	
Naughty Stories (CDRom V1+V2)	5-7	£93.75	
Adventure 1 The Romans	10-12	£38.25	All our prices are inclusive. No extra to pay. Sorry no credit card facilities.
Adventure 2 The Egyptians	8-11	£38.25	
Adventure 3 The Vikings *	8-11	£38.25	
Adventure 4 The Anglo Saxons	8-11	£38.25	
Connections	5-7	£35.00	Telephone 0181 950 4973 for further enquiries.
Plantwise *	9-16	£48.75	
Bodywise *	9-16	£48.75	

Five Star Marketing, 4 Shepherds Walk Bushey, Herts. WD2 1LZ.

Resource Discs

- TextEase Resource Disc **NEW** £12.95
- Impression Publisher Resource Disc £12.95
- Impression Style Resource Disc £12.95
- Ovation Resource Disc £10.52
- Avery Label Templates for Publisher/Style and Ovation £9.34
- Artworks Resource Disc £10.52

Draw Clip Art Collections *Drawn in the UK*

- Party, Wedding & Anniversary 2 discs £16.45
- Parish Magazine Set 4 discs £19.95
- Primary Teachers Clip Art Set 2 discs £16.45
- Map Set UK - Europe - World 3 discs **SPECIAL OFFER** £18.00
- Greeks & Romans with ClearView guide **NEW** £11.75
- Anglo-Saxons & Vikings with ClearView guide **NEW** £11.75
- The Normans with ClearView guide - 2 discs £18.80
- World War One with ClearView guide - 3 discs £23.50
- World Animals £9.34
- 19th Century Britain with ClearView guide **NEW** £11.75
- Earth & the Solar System with ClearView guide **NEW** £11.75
- Rockets & Space Travel £9.34
- Story of Flight £9.34
- Military Aircraft includes WW1 and WW2 £9.34

Applications

- ClearView 2 hypertext/multi-media authoring system £39.00
- DRAW_Changer Draw special effects **SPECIAL OFFER** £19.00

Send for the Free brochure of clip art and multi-media resources
All prices include VAT. Add £1 postage to all orders

Brochure at - <http://www.zynet.co.uk/decdata/> **Sales Hotline**
 Dep AU4, PO Box 97, Exeter, EX4 4YA Phone/Fax 01392 221702
 for Australia - KidsRam 241 Hawkesbury Road, Winmalee, 2777 NSW Phone 047 544 344



The Panasonic PD System .
 There are THREE ways of looking at it.

1. A new 4x speed CD-ROM drive.



2. A new low cost 650MB Optical disk drive.

3. A new low price.

Panasonic
 Optical Storage

Now From
£399
 + VAT

Order Form

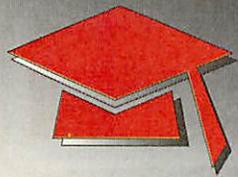
I would like to order :-

- Panasonic PD internal drive for Risc PC £399.00 + VAT
- Panasonic PD external drive £549.00 + VAT
(suitable for use with any machine with SCSI interface)
- Extra 650MB re-writable cartridges £39.00 + VAT

All drives are sent by Courier Delivery. Please add £10 + VAT to the above prices.

I enclose Cheque for £ / Please Charge my Credit Card No..... expires.....

Send your completed Order Form to: PD Offer, The Acorn Centre - Cardiff, 42 Crwys Road, Cardiff, CF2 4NN Tel 01222 644611 Fax 01222 644622



I told you so!

Last July I reviewed CSH's CD-ROM, *The World of Robert Burns* and concluded that this product is so good it would inevitably receive some awards. It therefore comes as no surprise that it has just collected its second award exactly one year after launch. After being voted *Acorn User* Best CD-ROM for 1995, *Burns* has now received the prestigious Primary Gold Award.

Launched to coincide with the Burns bi-centennial celebrations and developed in close collaboration with Dumfries and

Galloway, *The World of Robert Burns* is a highly interactive program covering all aspects of his life and works.

Congratulations to the CSH team, including their advisors for the project. It was a mammoth undertaking which has been brilliantly executed and is a credit to you all.

Just one question... how can a company such as CSH, who have a proven track record of producing innovative educational software such as this, not be an Acorn Education Dealer/Agent?



Robert Burns wins another award

Industry-driven software

FOR as long as I've been involved with computers, programs produced by industry have been commercially available for use in education. I recently reviewed a product by the Meat Marketing Board and have mentioned the excellent simulations by the RAF.

I recently took a phone call from a marketing company (not associated with either of the aforementioned programs) asking how their products were used in my school. The short answer was, they're not. The fact is that unless the software is written with specific national curriculum attainment targets in mind, teachers will, in the main, avoid them. Whether they are right to avoid such software is a debatable point, but the fact remains that Information Technology coordinators look at ATs first, and price second.

More Acorn help

FOLLOWING on from the success of *The Acorn Companion*, Geoff Love has written *The Acorn Companion 2* which is aimed at RiscPC and A7000 users. My first impression of the book is that the quality of reproduction is vastly improved from his first book (and another similar style book on networks by someone quite close to me).

The book follows the same formula as before - everything you need to know to get you going, then some hints and tips to get you beyond the novice stage. Anyone who uses an Acorn computer and wants some answers to basic questions without having to delve through several manuals, need look no further. The book is available from SEMERC.

SEMERC Tel: 0161-627 4469

Secure your software

DATA protection seems to have gone off the boil recently. In case anyone is in doubt, there is still a law to protect individuals who have personal data held on computer. The most likely breach of that law in schools is that of disclosure - allowing data about one person to be read by another. The problem often occurs when the teacher's computer is used by a pupil who then opens the hard disc and goes for a fishing trip.

I've used *SecureIt* ever since it was launched as it is an easy way of stopping people using your computer, and especially accessing files which may contain sensitive material. Although efficient, it was a little unsophisticated in parts and so has now been revamped and become *SecureIt+*. The latest version offers several additional features, some of which will be familiar to network users like hidden directories.

Security Choices		
Quit protection <input checked="" type="radio"/> Menu quit <input type="radio"/> Paranoid	Protection levels <input type="radio"/> Desktop <input checked="" type="radio"/> Total	Protection type <input checked="" type="radio"/> Selective <input type="radio"/> Total
Startup logon <input type="radio"/> On <input checked="" type="radio"/> Off	Iconbar Startup <input checked="" type="radio"/> Show icon <input type="radio"/> No icon	Logout action <input checked="" type="radio"/> Use default <input type="radio"/> Force logon
Startup detail <input type="radio"/> Show <input checked="" type="radio"/> Don't show	<input type="checkbox"/> Use Fonts	New user groups <input type="radio"/> Master user <input checked="" type="radio"/> Any user
<input type="button" value="Set & Save"/> <input type="button" value="Cancel"/>		

Help stop prying eyes

Having a locked directory which can only be accessed with a password is fine, but making the folder invisible until a password is entered is much better. There is also a great deal of on-screen help for setting up the software and there are various levels of protection from minimal to paranoid.

SecureIt+ is rather like a gear-lever lock for your car: it'll stop the casual opportunist, although the professional will usually be able to get around it. But at less than £30, it's well worth it to prevent pupils seeing what they shouldn't.

Cambridgeshire Software House
Tel: (01480) 467945

Best wishes Mike

I WOULD like to take this opportunity to wish Mike Matson and 4Mation best wishes for the future, whatever that future may be. It was Mike who first spotted my (*Draw*) talents when he enlisted me to produce some files for *smArt* and later some animations for *Noot*. Best wishes to you both.

Contacting me

You can contact the Education page by writing to me, Geoff Preston at Acorn User, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP or by e-mail to:
gp Preston@arcade.demon.co.uk

CONTRARY TO WHAT YOU MAY HAVE READ....

THE DATA STORE is still *fully committed to Acorn.*

There has never been a better time to invest in a new Acorn computer, with new models, lower prices and the following special offers for either educational or home/business purchasers:

SCHOOLS!

If you are within 30 miles of our base in Bromley (Kent), we provide **FREE** delivery and installation, plus **TWO HALF-DAY TRAINING SESSIONS FREE** during the year following purchase of any Acorn computer system. If you want the highest possible level of after-sales service and support, our reputation is unbeatable. Please phone for full details.

HOME USERS!

Take advantage of Acorn's **20:20 FINANCE SCHEME**. Buy a new computer system and spread the cost over 20 months with **NO INTEREST TO PAY**. Again, please phone for full details (written details on request).

And we offer a huge range of ex-stock peripherals, add-ons and software for all Acorn computers which you can see in our comfortable showroom.

DON'T DEAL IN THE DARK! COME AND SEE THE LIGHT AT

THE DATA STORE

6 CHATTERTON ROAD, BROMLEY, KENT BR2 9QN

Tel: 0181-460 8991 Fax: 0181-313 0400

Email: sales@datstore.demon.co.uk

Acorn Centre of Technology

Special Offer

Acorn A3010

- 2Mb RAM
- 1.6Mb Floppy
- 12 months warranty
- AKF52 Multiscan monitor
- Easyword Word Processor

£345.00

options:

- 2-4MB upgrade - £95.00
- 60Mb Hard drive - £125.00

AJS Computers

51 Heath Drive
Chelmsford Essex CM2 9HE
tel 01245 345263
fax 01245 345233
email sales@ajscomps.demon.co.uk
all prices plus vat and carriage

PC Card Exchanges

Exchange your old 486SX card for a new higher spec card

PC486DX2-66 - £149.00

PC486DX4-100 - £199.00

PC5x86 - £399.00

Also, exchange ARM610 to ARM710 - £100.00

Special Offer

Used Philips 17" Trinitron monitors
Supports most RiscPC display modes

£395.00

SIMMs for RiscPC

- exchange 4Mb to 8Mb - £90.00
- exchange 4Mb to 16Mb - £235.00
- exchange 8Mb to 16Mb - £175.00
- additional 4Mb - £65.00
- additional 8Mb - £135.00
- additional 16Mb - £265.00

Special Offer

RiscPC600

- 4Mb RAM
- Risc OS 3.6
- 425Mb Hard Drive
- 1 year on-site warranty
- AKF60 Multiscan monitor

£1045.00

upgrade options:

- 1Mb VRAM - £65.00
- extra 4Mb RAM - £65.00
- 850Mb hard drive - £79.00
- Quad speed CDROM - £119.00
- 17" Monitor - £325.00



Statistics with Graphics

1st

1st now seriously upgraded version 2 products give a choice of user interfaces with even more statistics and graphics.

1st provides UNEQUALLED statistical facilities. Drawfile graphics. Easy CSV interface. Spreadsheet type data entry with extensive manipulation features. Automatic, context sensitive manual. Mouse driven, with optional keyboard shortcuts.

Our products cover statistical requirements at levels from GCSE to advanced research. Education prices from £50 to £164 depending on the version.

New, unique features for Value Added Analysis in School Administration.

FREE loan copies. Further info available from:
Serious Statistical Software
Lynwood
Benty Heath Lane
Willaston
S. Wirral, L64 1SD
Tel: 0151 327 4268

The established statistical packages.

Acorn publisher

"I must congratulate Acorn Publisher for its in-depth constructive articles, and the layout of the whole magazine" That was the reaction of one of our subscribers to the latest issue of Acorn Publisher. Judge for yourself. Write or phone now and we will send you a free sample copy (50p in stamps to cover postage appreciated), together with details of our subscription rates and contents of back issues.

Acorn Publisher is a magazine covering all aspects of dtp, design and graphics. It is genuinely practical and at a level at which everyone can learn and benefit. Everything you always wanted to know is here in black & white, and colour too. And we cover multimedia and electronic publishing as well.

No other Acorn magazine provides so much coverage of the desktop publishing scene.

Have you sent for your free copy yet? You have nothing to lose, and so much to gain.

AKALAT
A Publishing
P.O. Box 231, Barton, Bedford MK45 4HQ.
Tel. 01582 881614 fax 01582 881614

A pirate's life for me!

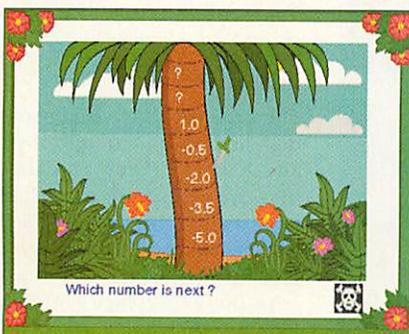
Joining the pirates, as Colin Rouse discovers, is great fun

Storm Educational Software's new offering, *The Calabash Pirates*, is an interesting new package on a rather different theme. The object is to join the pirate gang – Natty Nick, Soggy Sam, Lost Luke and Dagger Jack – to find lost treasure that has been hidden on a long lost island, encountering many problems along the way.

You land on a desert island with a map and a parchment scroll describing the position of a treasure chest. As the pirates travel round the island in search of treasure, you will encounter mathematical and geographical puzzles. This requires the use of problem-solving techniques, decision-making and planning. There are three levels of difficulty which can be played many different times. If you succeed at these puzzles, you will be rewarded with extra pieces of silver and gold.

Solving the puzzles

There are lots of different puzzles to solve in the *Calabash Pirates* which will test children with a wide range of ability. In *Calabash* roaming, the user is given a map of the island, directions have to be followed, using a compass and co-ordinate points, to discover the location of the treasure chest. Once this is done, the island



What's the number? *The Calabash Pirates* in action!

may be explored. Moving round, using compass points and scale to look for treasure, can be very rewarding. At random, short activities appear to test the user's skill and knowledge.

The degree of difficulty is determined by the level being attempted. In Number Sequences, the next number has to be worked out which, at the higher level, can be negative.

In Word Search, three words have to be found within a specified time limit. Historical Questions have to be answered here, from a multiple set of answers, connected with this historical period.

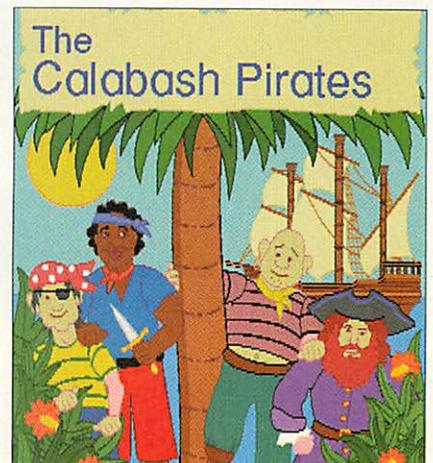
Patch the Sail is an activity where triangular pieces of sail must be put together in the right colour combinations. At the highest level a mirror image of the sail must be made. The triangles may be flipped both horizontally and vertically to make them fit.

The Riddle of the Sands contains mathematical problems where the numbers have been swapped for symbols. At the highest level, different number bases have been used. An additional problem is the tide, which is coming in to wipe out the questions. The Cannon Game is another mathematical activity where cannon balls have to be fired at a target where the numbers hit must add up to a given amount.

A certain amount of logic has to be used in the Raft Rescue. A collection of logs have to be arranged in the correct order, by matching the coloured shapes on the ends, to make a raft to rescue Lost Luke within the time limit!

The Tacking activity sees you become a sea captain who must navigate your boat between two sets of high cliffs. Compass points and angles must be used to help you zig-zag your way through. At the highest level, the whole course must be plotted before the boat can sail.

Other options include saving and reloading, the current page may be printed, either the mouse or keyboard may be used and the level of play may be changed at any time. There is also an option to give on-screen help, should it be needed.



Yo ho ho! The pirates are here!

In the classroom

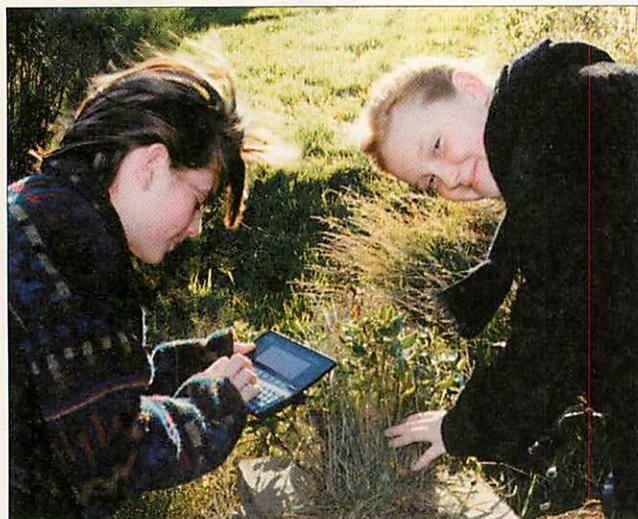
The Calabash Pirates would fit in well with any topic which includes this period of history but, in my opinion, it is worth using it to help children understand the mathematical concepts it develops. It presents all the activities in an interesting and fun way, making them enjoyable to attempt while meaningful in content.

The children in my class can't get enough of this program, which has stimulated a lot of work away from the computer in a variety of curriculum areas, at differing levels including mathematics, english, art, history and geography.

This is a useful software package which is well-presented and fun to use. It has a good user manual and some very useful ideas for further activities. In my classroom *The Calabash Pirates* has been very successful in supporting the curriculum. My children and I **AU** recommend it.

Product details

Product: The Calabash Pirates
 Supplier: Storm Educational Software
 Tel: (01935) 817699
 Fax: (01935) 817699
 Price: £25.99 for single user, double for site/network licence
 Pros: Fun to use • Informative
 • Challenging
 Cons: None spring to mind!



What colour green is this?

The Pocket Book has been heralded as 'the way forward' in educational computing; an affordable way of giving a computer to every child. However, schools still don't seem to have enough money to buy basics let alone sets of Pocket Books.

I was asked recently to help a primary school who had been given 30. They had been put in a box in the stock cupboard and no one felt confident enough to find out what they could do.

I was very fortunate to have won a Pocket Book at the Acorn World Show in 1993 and I use it extensively to store information, word process, develop spreadsheets to help with accounting and other matters, and the Schedule program helps me organise my life.

Where to begin?

When the school asked me to help I didn't know what to suggest. I'd seen presentations at the Acorn stands at shows demonstrating how the Pocket Book could be used effectively on a school journey, but this was for secondary school pupils. I decided to get some help from Geoff Preston, education editor for *Acorn User*. Geoff is a secondary school teacher and was also doubtful about how primary school children would take to the Pocket Books although he did make a few, what proved to be, very useful suggestions.

When initiating projects in

school I am inclined to start lower down the age range so that the children with the knowledge and expertise are not lost at the end of the year. However, the teachers with the inclination to learn about the Pocket Books taught year 6. We combined a vertically grouped class with the year 6 class so altogether there were about 54 children.

No shortage of enthusiasm

The children were very keen to use the Pocket Books. There were enough for the children to share one between two which worked very well. The children were quick to learn the basics. They were also very adept at setting an alarm, so I would advise teachers to remove the

Geoff Stilwell discovers how Pocket Books can be used at school

Time application with the Acorn+Y keypress, as I did before the computers were given back to the children. 'Out of sight, out of mind'.

We all began doing some word processing using the Write application. This provides a good starting point for teaching all the basics: using applications, starting new files, moving around documents, deleting, marking, cut, copy and paste functions and saving files. That session lasted the whole morning.

Developing a database

One of Geoff's ideas was to develop a database using Cards by collecting data from the school's environment. Both the year 6 teachers felt that a database on the subject of Plants would fit in very neatly with the science work that was going on in the classroom.

In the next session we looked at the Cards application, using the default Cards file to enter the children's names and addresses to explore how the Pocket Book could manipulate the data. The Pocket Books we

were using were the original version 1 so data manipulation is limited within Cards, although we did explore the browsing and searching facilities.

The next step was to start developing our Plants database. I firmly believe that the most important work with computers is actually done away from the computer and the database is the prime example. It must be carefully planned. We put the Pocket Books aside and focused on the Plants database.

We had talked about what a database was and then focused on the fields we were going to use; what were we actually going to look for when we went out to collect the data? We 'brainstormed' the idea first and used most of the ideas generated to specify the fields.

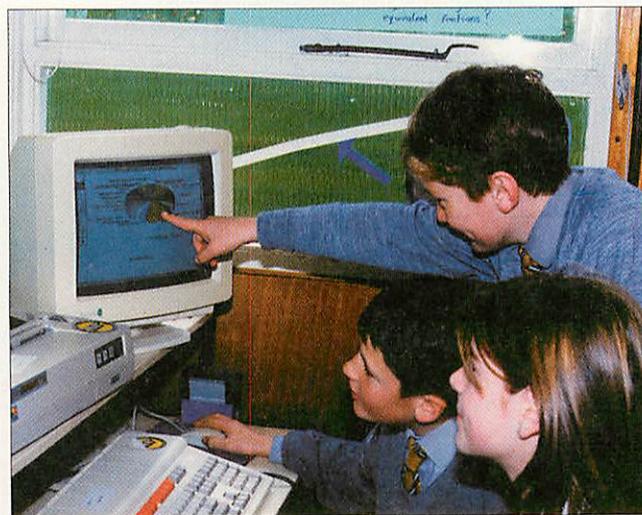
The main problem with databases and children is inconsistency. When looking at the fields we also considered what the children would put into them. Would it be a number? What units? Would there be a limited list of choices or could they be descriptive? We hoped that this would limit potential discrepancies.

The planning process complete we returned to the Pocket Books to start a new Cards file called Plants and edit the Labels, making sure that each pair of children had got it right was very time consuming.

Gathering information

The next day the teacher split the children into groups of six and I took a group at a time into the grounds of a convent next door to the school. Each pair worked separately with their own Pocket Book.

In my experience children look but they don't see, and if nothing else the database exercise forced them to be much



Seeing the results in the classroom

Mini

motivators

more observant. Obviously some children saw more than others but everyone filled in the fields with as much detail as they could manage. Each group had about half an hour to collect data. Most pairs managed about four records in that time.

I'm no expert on plants, so the field to enter the name of the plant most often had the word 'Unknown' in it. We hoped that the children would be able to use books in school to identify the plants from the descriptions they had given in the database. The children also took a clipboard and some paper to make simple sketches of the plants, leaves and flowers.

Late Autumn is probably not the best season to be collecting information about plants as there was very little in the way of flower, fruit or seeds. However, it was surprising, even to me, how much one can find growing in and around a stone pathway and on the side of a building.

Back in the classroom

Back at school we used an A-Link to upload the data on to the class's A3020. The files were converted by the A-Link software, PocketFS, into CSV files. We merged them all together by dragging them one by one into the first file using Edit.

The school have a copy of Longman Logotron's child-centred database, *Junior Pinpoint*. This is an excellent database package for creating a set of records from scratch – based on a questionnaire type of page format. It is less flexible for importing information from another database, although, by making sure the two databases are exactly the same, it is possible.

I created a new database in *Junior Pinpoint* with the same



Gathering information for a plant database

fields as the Pocket Book version. I gave long descriptive names to the fields to make the *Pinpoint* database user-friendly for the children and also defined short names that the program used to specify each field.

Before we could import the data into *Junior Pinpoint* I had to create a header line in the CSV file which contained the short titles of the fields already defined in *Pinpoint*, each one separated by a comma, making sure I had the same number of titles as I had fields. Dragging the CSV file into a PinImport window we were able to see in the consequent list that the fields matched up. The files were imported without further complication.

Our browsing through the

data within *Junior Pinpoint* showed up the children's spelling mistakes and inconsistencies. This problem could have been tackled at the Pocket Book stage but seeing everything together helped the children see how a single space would make a difference when it came to sorting the data.

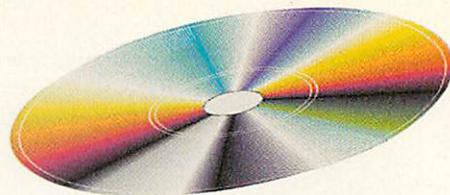
The children did not find it easy to understand the need for consistency until we produced a graph based on the Colours field. The predominant colour of the plants found was green but the graph showed that practically every plant had a different colour. One was described as green, another as light green, another as greeny brown and another as green brown.

There is undoubtedly a lot of

work that could still be done using the database. Books could be used to identify the plants from the descriptions and sketches, and names could replace the 'Unknowns'. Some of the fields could be made more consistent, and meaningful graphs drawn showing, for example, where different plants were found. Basic questions arise such as 'Why were there no seeds, fruit or flowers?'

The Pocket Books certainly motivated the children to get out and explore their immediate surroundings and now they are confident in using them there is no telling what they will use for next.

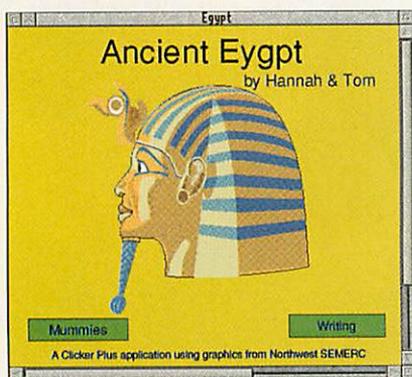
Thanks to Mrs Joyce and Sister Brenda of St Vincent's Primary School, The Ridge-way, Mill Hill, London. **AU**



Alternative

Geoff Preston looks at some alternative programs you could use to produce multimedia presentations

authoring



Clicker Plus will display text and graphics and can display very creditable presentations.

Clicker Plus

This program is a development of *Clicker* which was originally conceived as a program to enable text to be input using the mouse. Grids can be created which may contain letters, words or whole sentences. Move the mouse pointer on to the letter or word you wish to type, click the mouse button and the text will be printed at the carat. *Clicker's* ability to load one grid from another means there is theoretically no limit to the size of a set of linked grids.

Clicker Plus, and its switch-control alternative, *Switch Clicker Plus*, has one significant additional feature which makes it suitable for multimedia production: its ability to handle graphics in the form of *Drawfiles* and *sprites*. This means that *Clicker Plus* could be used to create some very creditable multimedia presentations.

Two further features are that *Clicker Plus* can output computer generated speech and *Switch Clicker Plus* can be controlled from a single on/off switch enabling users with physical impairment to operate the system. The only drawback at present is that there is not a freely distributable read-only version of the program, nor anything within the software to generate a stand-alone presentation. This means that people who want to use your *Clicker* presentations must first buy *Clicker*.

Clearview2

This is described as a hyper-linked document reader and is a neat way of displaying lots of pictures and text with hot links for cross-referencing. There are two versions, the most familiar probably being the one supplied as a means of displaying and retrieving the high quality clip art produced and supplied by DEC_data. That version is a read-only and is public domain (although the accompanying clip art and text is not). The second version enables multimedia presentations to be created. At the time of writing, DEC_data had just about finished a CD-ROM developed using *Clearview2*.

It has several useful features, plus the ability to load one file from another which reduces loading time, especially over a network and it is also easy to extract the resources. As well as text and pictures, *Clearview2* will also support sound in a variety of formats.

If the content of your presentations are mainly cross-referenced text with supporting pictures and some sounds, *Clearview2* could be the right package - especially in view of its price: £40 including postage and VAT.

Notice Board

Different from the others *Notice Board* will display pages of text and graphics as a sort of automated slide show. It could be used in a variety of ways, including displaying subject linked clip art. The end user has no control over what is seen, but the person compiling the production has a variety of effects and delays to choose from.

This is a simple and cheap program which, if nothing else will give would-be multimedia authors some valuable practice in page layout.

Impression Style and Publisher

Well it isn't really a multimedia application but the OLE function (Object Linking and Embedding) can make it behave a little like one. For example, *Impression* cannot 'read' files created by

Vector (4Mation). If you try to drop a *Vector* file into a graphic frame in an *Impression* document, an error message is given telling you that the filetype isn't understood and asking whether you want it inserted as an embedded object. The answer is yes. The *Vector* icon will be displayed in the graphic frame. By double clicking *Select* on the embedded icon while holding *Ctrl*, the file will be loaded into *Vector*. This means that a page of text can have an assortment of sound, movie and graphic files embedded in it and the user simply holds *Ctrl* and double-clicks *Select* to see or hear the files.

Next Month: Putting your work **AU** on to a CD-ROM.

Product details

Product: Clicker
Supplier: Crick Computing
Address: 123 The Drive, Northampton, NN1 4SW
Tel: (01604) 713686
Fax: (01604) 713686

Product: Clearview
Supplier: DEC_data
Address: 60 Danes Road, Exeter, EX4 4LS
Tel: (01392) 221702
Fax: (01392) 221702

Product: Impression
Supplier: Computer Concepts
Address: Gaddeston Place, Hemel Hempstead, Herts, HP2 6EX
Tel: (01442) 63933
Fax: (01442) 351010
Email: info@cconcepts.co.uk

Product: Notice Board
Supplier: The Really Good Software Company
Address: 39 Carisbrooke Road, Harpenden, Herts, AL5 5QS
Tel: (01582) 761395

Archimedes Public Domain Library



P. D., Shareware, and low cost software for Acorn computers.



APDL Clip Art CD-1 only £22.50
APDL Clip Art CD-2 only £22.50

Each contains around 500Mb, all in Acorn format (Sprite, Drawfile and Artworks). Ideal for schools.
Buy both Clip Art CDs for just £42

APDL PD CD-1 only £17.50
APDL PD CD-2 only £17.50

A huge collection of P.D. and Shareware at a realistic price.
Buy both PD CDs for just £32

Hard discs

Low cost IDE and SCSI drives and interfaces for all models

A310/A400 IDE

210Mb - £160, 340Mb - £185, 512Mb - £210, 850Mb - £230, 1.2Gb - £255

A3010/A3000 IDE

80Mb - £145, 120Mb - £169, 260Mb - £225, 340Mb - £245, 810Mb - £399

A310/A400/A5000/Risc PC SCSI

Bare drives - 240Mb - £95, 1Gb - £239, Complete - 240Mb £199, 1Gb - £349

Prices include cables, brackets and fittings. Lots of others available.

Syquest EZ 135Mb removable, SCSI or IDE, internal or external Discs only £17. Solve your backup and security problems - from £179

Plus Risc PC RAM upgrades and the famous APDL part-exchange scheme if you need a bigger hard disc (eg. 210Mb to 512Mb for only £125).

For a catalogue please send £1 or four 1st class stamps to

APDL, 39 Knighton Park Road, Sydenham, London SE26 5RN

Phone: 0181 778 2659 Fax: 0181 488 0487

Prices include VAT and carriage - Nothing more to pay!



textease

Simply the best
Word Processor and Desktop Publisher

Just click anywhere and start to type

Version 2

£49 + VAT (£57.58)

This highly praised word processor and DTP is ideal for home and education use. Use the screen like a sheet of paper, click anywhere and type. Text can be easily sized, moved, coloured or the font changed just by clicking the mouse. Pictures dropped into *textease* are also easily moved, sized and altered. *Children love its simplicity. Adults find it versatile, sophisticated and professional.*



£65 + VAT (£76.38)

This combines excellent speech, integrated thoughtfully into *textease*. Children delight at hearing their stories read back. The word being spoken is coloured, making it very easy to follow the text on the screen. Also excellent for adults when proof reading work.



Softease Limited Tel 01332 204911

Fax 01684 772922 sales@softease.demon.co.uk

The Old Courthouse, St Peters Church Yard, Derby, DE1 1NN

Prices include primary site licence for education customers

Requires Acorn RISC OS3

Produced on *textease*



DALRIADA DATA TECHNOLOGY

GraphMate

Presentation graphics without tears.

- Extensive controls over graph appearance
- OLE compatible with Impression; links with TableMate 3
- Word-wrapping text / scaleable graphics anywhere you want
- Customisable key/legend areas with automatic formatting
- Full colour control, background and shadow effects

... just far too many features to describe here - why not send an SAE for full information? Single user pack - £45.

-DiagramIt-

Diagrams of all sorts - in a flash!

- Flowcharts, organisational charts, annotated diagrams spider diagrams, process diagrams - and more!
 - Automatic connection of symbols using Artificial Intelligence
- Single User - £50. TableMate 3 User - £45.

TableMate 3

"Possibly an essential purchase"

"I would recommend this package to anyone"

- TableMate 2 & 3 Reviews, Archive May 95/Feb. 96

Single User £34-50; Upgrade from Style/Publisher £19-50

74 Greville Road, WARWICK, CV34 5PJ. 01926 492459

SOME OF THE CD'S AVAILABLE FROM OUR FAST GROWING RANGE

CD6	Over 1000 mainly photos in GIF format covering Animals, Bikes, Cars, Flowers, Lingerie, Misc, Nature, People, Places, Planes, Ships, Swimsuits, Trains	9.99
CD7	1150 mainly photos in GIF format, Animals, Bikes, Birds, Cars, Fish, Flowers, Nature, Places, Planes, Scenes, Transport + many utils for PC	9.99
CD8	1400+ photos in GIF format, mainly women, Supermodels, Celebrities, Glamour	9.99
CD9	1000+ clipart & photos in GIF format covering many subjects + over 900 PC utils and drawing packages - GREAT VALUE	14.99
CD19	400+ GIF format photos from Space. Some great shots of Earth and the Shuttle + many PC programmes and Star Charts.	12.99
CD43	4600 Clipart in GIF format, 400+ textures in IFF format, Animations in AVI & FLI format, and many utils for the PC	19.99

ALL THE ABOVE CD'S CAN BE RUN ON A STANDARD ACORN, RISC OS 3+ USING ICHANGE FSI OR ITRANSLATOR TO CONVERT THE GRAPHICS

CDS FOR PC CARDED ACORNS

CD15	A history of US space exploration, with mission and crew facts, photos & video clips	14.99
CD23	1000's of Adventure, Casino, Text & Educational games for 3+ years	9.99
CD25	2000+ Programmes inc. 3D graph, CAD, Comms, Databases, Drawing, Educational, Finance, Health, Maths, Security, Sound, Utils, Word Processing etc	9.99
CD37	300+ games plus nearly 3000 other programmes GREAT VALUE	6.99
CD40	600+ games, 70+ utils, and 950 Joke files readable in !Edit - worth it for these files alone	6.99
CD52	3000 games, Arcade, Board, Card, Gambling, Golf, nearly 400 joke files, Sim City, Star Trek etc.	9.99
CD53	4000+ files, Antivirus, Archivers, BBS, Blankers, Business, Clipart, Database, Education, Graphics, Morphing, Music, Spreadsheets etc. GREAT VALUE	9.99



SoftCentre

01924 272511

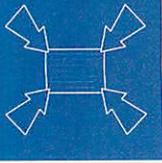
25, TOWNGATE * OSSETT * WAKEFIELD * WF2 0LP * TEL: 01924 272511

OPEN 9am - 5pm MONDAY to SATURDAY

P & P any order only £1.50

Cheques & Postal Orders made payable to 'TOWNGATE TOYS'
 Cheques under £10 will attract a £1 fee to cover bank charges.





Free Ads

- Acorn Risc PC 600, 9Mb, 210 HD, CD-ROM drive, Impression Style, PC card, Scanlight Video Animator, ProArtisan + lots more. £2200 ono (inc delivery to UK). Tel: (01983) 883188 - IOW.
- A5000 4Mb RAM, 120Mb HD, Eizo 9030S multiscan, VIDC enhancer, sound upgrade, Impression publisher, PC Emulator v1.6, games, software, excellent condition, £950. Tel: (01734) 419372.
- Wanted: BBC Acorn User magazines. April to December 1989. Errors in 'Codename Droid' sought. Decent price paid. Tel: (018907) 50862.
- Risc PC 600, 4Mb HD 425, AKF60 monitor. Hardly used, original packaging £1000. Prophet 2 £90, Data Power £50. Tel: Reading (01734) 426843.
- Risc PC 600 for sale, 21Mb with 486DX280 PC card, CD-ROM, with Artworks, Impression, Studio 24 and Studio 24 Pro and CoreDRAW! 3. 3 years on site warranty plus extras. £2000. Phone Steve on (01793) 491360 after 8.30pm.
- A5000 4Mb, AKF18 monitor, 2 x 540Mb HD, SCSI interface, 330Mb external HD (SCSI). Midi/sound sampler interface, 486 PC card. Lots of software. Boxed c/w manuals. £1200 ono. Could separate. Tel: Trevor (01775) 710640.
- Game wanted - Simon the Sorcerer (suitable for A3010). Any reasonable price paid plus postage costs. Tel: (01353) 861728.
- Wanted: All Archimedes educational software for school. Will pay good price. Send details to Mr Taugh, 20 The Highway, Lewes Road, Brighton, BN2 4GB.
- A3010, 4Mb RAM, 30Mb HD c/w AKF30 monitor. Excellent condition with original packaging, cables, manuals and software. £350. Tel: 0114-236 1307 after 6pm.
- Acorn software for sale: Pipedream 4, £25. Almanac, £25 (organiser, financial package), Startwrite WP, £5, Talkwrite £12, Textease, £8. PC emulator + Dr DOS 5.0, £15. Tel: (01474) 356985.
- Risc PC 600, 13Mb RAM, 210HD, second slice, CD-ROM, 486 card. Bargain at £1499 (new £2150). Tel: (01728) 724522.
- Modem wanted, external 14.4. Also comms and internet software and CD-ROM drive. A3000 for sale. Tel: 0161-950 8409.
- A440/1, ARM3, 4Mb RAM, RISC OS 3.1, VIDC, Eizo 9060S, 47Mb HardDisc, PC Emulator 1.83, Pipedream 4. CC Compression, Fonts etc, £495. Tel: (01257) 424113 (Lancashire).
- A5000, 4Mb RAM, 170Mb HD, Acorn AKF52 monitor, Aleph One 486 PC card with 4Mb RAM & Maths Co-processor, lots of software, £900. Tel: (01780) 63802.
- A3000, RISC OS 3.1, 4Mb RAM, 30Mb Hard Disc, serial interface, Philips colour monitor, monitor stand, all manuals and application discs, some software. VGC, £375. Tel: (01372) 815184 (Surrey) ask for Dave.
- A310 1MB RAM, RISC OS 2, two slot backplane original packing manuals applications disc, VGC, slight use, £65 including postage. Tel: (01706) 817570.
- For sale. Mag CD-ROMs, £2 each inc p&p or 5 CDs for only £8. Phone Matthew on 0973-301 882 (evenings) or 0181-523 8058.
- Most books for BBC Micro; hardware, software, programming, add-ons etc. Excellent condition. Phone (01709) 543745.
- Acorn A3000, 2Mb RAM, fitted video enhancer allows high screen resolution 1024x640. 14in NEC Multisync colour monitor, manuals, £350. Tel: 0181-967 3048 (Middx).
- A5000, 4Mb RAM, 190Mb HD, AKF50 monitor. All manuals and software, little used. £700 ono. Tel: (01582) 867263.
- Risc PC 600, 17in AKF85, 8Mb RAM, 2Mb VRAM, 420 Mb HD, CD-ROM plus manuals - all as new. £1400. Tel: (01746) 765732 (evenings/weekends).
- A3000, including Acorn monitor with 4Mb RAM, 60Mb HD, RISC OS 3.1, games, Pipedream4, PD and magazine discs etc, £400 or offers. Tel: Devon (01548) 843852 (evenings).
- A3000, 4Mb, Phillips colour monitor, Learning Curve, educational and games software. Full set manuals. £425. Tel: (01206) 798122.
- Acorn A5000, 4Mb RAM, 405Mb HD, Multisync, 3.1 Publisher, Genesis Pro, Poster, PC Emulator, 600 fonts, £695. Tel: (01424) 719569.
- For sale: Magazines (AU and Arc World) - '91-'94, £10-15 per year (inc cover discs). Also Almanac £25, Event £10, Deskeddit II £10, Arcscan III £7, Pipedream III £20, Easiword £15, Birds of War £15, Black Angel £15, Diskcat £5, Style Guide £5, Assembler Manual £10. Tel: Mr R Hitch (01623) 751411, evenings only.
- Modem; Miracle WS2000 1200/75, 300/300, auto answer, auto dial, manual control, complete with leads and manual. Ideal starter unit, £35. Various BBC 8-bit programming and reference books, essential for new learner or beginner, telephone for details. Tel: 0191-285 0097 evenings.
- ST506 podule, suitable for A30x0 series etc, for Hard Disc expansion with 'second-layer' (adds to first layer) expansion box hardware for PRES podule box. £25 the lot. Tel: 0191-285 0097 evenings.
- Archimedes A5000, 4Mb DRAM, 258Mb Hard Disc, FPA. As new, still in box. High Resolution colour monitor. £700. Tel: (01223) 862293.
- Acorn software for sale: Impression style, Pipedream 4, games, cover discs, PC emulator, RISC OS 3 user + applications manual. All low prices. Tel: (01252) 515183 after 3pm.
- A3000, external 50Mb HD system £65, EcoSCSI 135Mb HD system £125. Black Angel, Haunted House, Time Machine, Elite, £5 each, Simon the Sorcerer, £15, Home Accounts £25. Tel: (01452) 855136.
- Wanted: Artworks software. Preferably CD-ROM version. Tel: 0181-349 4877.
- Looking to swap Warlocks for Wolfenstein. Other Acorn games for sale or ideally swap. Tel: Philip on Worcester (01886) 832417 after 6pm.
- RiscPC 600, as new, £1000. Prophet II, £80. Eureka, Data Power, Touch Type, Image Outliner, unused, all half price. Tel: Reading (01734) 426843.
- Risc PC 600, 8Mb RAM, 2Mb VRAM, 420 Mb HD, Cumana Dual speed CD-ROM drive, double slice, AKF 60 14in monitor, £1800. Tel: (01705) 588311.
- A3000, RISC OS 3.1, 4Mb RAM, 120Mb HD, b/w Multiscan monitor, Citizen Swift printer, Impression publisher, manuals, £400 ono. Tel: Steve (01332) 760573 (Derby) after 6pm.
- A5000, 8Mb RAM, 425Mb HD, RISC OS 3.1, Taxan 770 + LR Multisync monitor, external 5.25in disc drive. Immaculate, with all manuals etc. £750 ono. Tel: (01924) 255515.
- A3000, 2Mb RAM, RISC OS 2 - boxed as new, includes: 2 x 3.5in FDD, serial upgrade, numerous software/game titles, suitable for IT keystages in schools. £360 ono. Tel: (01932) 562270.
- 2Mb SIMM for Risc PC - £30. 1Mb VRAM - £75, 4Mb SIMM, £100. Contact Oscar Pacey on 0171-582 1084.
- For sale: A3000, 2Mb Phillips colour monitor, 80Mb IDE Hard disc (fitted 1995) serial link, user guide. £190. Tel: (01892) 530071.
- For sale: Acorn computer games. Burn Out (perfect condition) £20 ono. Saloon cars deluxe (perfect condition) £15 ono. (Both £30) Also will swap games for other good games/software. Call Hertfordshire (01438) 718507 any time.
- Risc PC 600, 4Mb, 420 HD, 14in monitor. £1100 as new. A410, 4Mb RAM, 14in monitor, 210 HD, software, £400 ono. Software available. Call 0181-445 3690 or 0956 540055.
- RISC OS 2 programmers reference manuals, £10. Basic WIMP Programming on the Acorn (Book), with software, £5. Tel: (01752) 896077.
- BBC Master 512 board with 1meg RAM, all manuals, plus 30meg winchester with Word5, WordPerfect 4.2, Works2, Lotus123, and about 500 pieces of BBC software. £220. Tel: (01934) 623506.
- A5000 4Mb, 80Mb HD, VGA colour monitor, OS 3.1.1, PC Emulator, lots of software, all manuals, Learning Curve oack, good condition, Bargain, £450. Tel: Bolton 848495.
- Master 128, Viewsuite ADFS-DFS S/RAM, Cumana 40/80 track, drive 5.25in, cassette. £80 or swap for 1-4Mb RAM A3010 or 1-2Mb plus software. Free CuB RGB 14in monitor needs minor repair and desk. Tel: (01204) 571836, Bolton.
- Wanted: Archimedes Operating System book. For sale: Basic WIMP Programming book and disc, £12, and Creator 2 for £20. Tel: (01983) 863293.
- 3 BBC computers, free to a good home, must collect. Tel: Venetia on 0171-730 1652.
- A310, 4Mb RAM, 20Mb HD, RISC OS 3.1, external disc drive interface, video digitiser, external 5.25 FDD, colour monitor, Impression Publisher, £300 plus carriage. Tel: Stephen Harding on (01256) 483454 (office hours).
- Wanted: Books for BBC computer: 'User Guide', 'D.F.S. User Guide', BBC BASIC for Beginners', BBC BASIC Programming for you'. Tel: 0115-922 1456 after 6.30pm.
- Acorn 5000, 80Mb hard drive, 4Mb RAM, MIDI interface, Sibelius6, Impression Publisher, some games (Populus, Sincity, Chess etc) Draw Clipart (12Mb) discs, manuals. £500 ono. Tel: (01245) 252015 (Chelmsford, Essex).
- Acorn A5000, 2Mb RAM, 81Mb HD, 14in VGA monitor, HD disc drive. Lots of software including Advance, 1st Word + Pendown, Arcist, Pandora's Box, Birds of War etc. £520. Tel: (01642) 325598.
- A5000, 4Mb RAM, 80Mb Hard Drive, RISC OS 3, Multisync monitor, 3.5 floppy drive, Impression II, loads of cover discs and PD. £600 ono. Tel: 0181-977 4924.
- For sale: Schema 2, £40, Pipedream, £10, Chocs Away, Chopperforce, Saloon Cars Deluxe, Lemmings 2, Cannon Fodder and Diggers, £12 each. Serpents and Nebulus, £5 each. Tel: (01969) 622634.

Acorn User Free Ads Service

Why not take advantage of our free reader ad service? Fill in your details on this coupon (25 words maximum, one word per box below) and send it to Free Ads, Acorn User, IDG Media Ltd, Media House, Adlington Park, Macclesfield SK10 4NP. Only one ad per reader, please. Although we try to publish every ad we receive, we can make no guarantees; publication is entirely dependent on space and time constraints. We may also publish free ads on the cover disc if magazine space is short. Please fill in your name and telephone number below: these will not be published, but they enable us to contact you in case of any queries.

Your name: Telephone no:

- RISC PC 600, 9Mb RAM, 210Mb Hard disc, AKF60, CD-ROM, PC card, Impression Style, SIM City 2000, excellent condition, other software titles, £1100 ono. Tel: (01223) 840633.
- A5000, Maths co-processor, 80Mb HD, Epson 24pin dot matrix printer, Impression, Artworks, some games, utilities etc. £750 ono. Tel: (01734) 730104 (Wokingham) evenings or weekends.
- Software: Magnetoids, £10, Instigator system manager, £10, DR DOS 5 User Guide, £10, Multiple Filer system, £5, Chess 3D, £5, First Impression (A tutorial guide), £10, 3 games, £10. Tel: (01246) 557946.
- Help! Toshiba printer model HX-P550 manual, wish to borrow, purchase, photocopy or locate. Costs reimbursed. Tel: Roger (017683) 72062.
- Technodream + free fancy backdrops to swap for any decent game. Very good condition. Offers to John Bain on (01388) 814522 after 3.30pm on weekdays (Spennymoor Co. Durham).
- Acorn AKF17 monitor. New power supply. Perfect working order. £75. Tel: (01438) 725641.
- Citizen 124D printer, 24 pin, £70. Integrex Colourjet 132 printer, £75. Tel: (01922) 57814.

More delights from
Dave Acton and
Dave Lawrence

*info

The bar necessities

Author: Steve Smale

Although we are great exponents of Nick Craig-Wood's desktop organiser *Director*, we are always interested to see other such devices, especially if they do things which *Director* can't (yet)! Steve Smale's *WimpBar* is one such utility, it provides a toolbar which sits across the top of the screen, in much the same way as the icon bar sits across the bottom. In addition to displaying the current time and the amount of free memory (it seems every desktop utility does this!) it provides a set of configurable buttons. These can be set to either execute a set of commands when clicked, or provide a drop-down menu containing many specific commands. A demo configuration is provided, so you can see the type of thing the utility does without having to delve into configuration.

Sooner or later you will want to set the application up for your own use. To do this load the file *Config* (within the application directory) into an editor.

The first line of the config file should be yes or no, and refers to whether the toolbar should be displayed onscreen all the time. If yes, the toolbar will appear at the top of the screen, behind all other windows. Holding the Alt key will bring the bar temporarily to the front of the other windows, and it will return to its old position when you let go. No means the toolbar will not be displayed at all unless you hold the Alt key, when it will be displayed in front of all other windows. Letting go will remove the bar from the screen again.

The definitions for the buttons/icons follow on from this initial line, up to 15 buttons can be defined. Each icon can have a name up to ten characters long, and can either be a Menu icon or an Action icon. A menu icon will, when clicked, open a menu. This menu can have up to 30 options, each having a related * command which will be run if the option is chosen from the menu. An action icon, when clicked, will immediately run a series of * commands. There can be up to 30 commands run from each action icon. Each icon is defined in order from left to right along the bar. If more icons are used than can fit on-screen, the bar will automatically scroll when the pointer comes near to the edge.

Menu icons begin with the line #MENU and are followed by the name of the icon (i.e. what is displayed on the tool bar). Following this, are the menu entry text and star command for each item to appear on the menu. If you wish to include a dotted separating-line under an option, add an underline character '_' to the end of the menu entry.

Action icons should start with #ACTION followed by the name of the icon and then a list of the star commands to be run when the icon is clicked.

Apart from the usual functions, the *WimpBar* menu provides 'Configure' to automatically load the configuration file into an editor and 'Reset' to reload the configuration once changes have been made.

21:14 5,320,704 bytes

Say Hello

Apps

Set Mode

Space time continuum

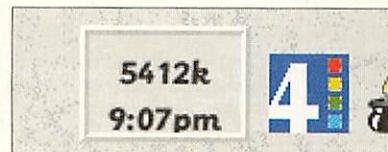
Author: Robert Casula

From Robert Casula, we have two small modules. The first is an icon bar clock that shows the time and the amount of free memory available. As it is a module task, it is very memory efficient, using only 600 or so bytes.

Robert's second module is called *LineEditor* and replaces the standard cursor and copy key editing system with true line editing and a history buffer. If you're used to the DOSKEY system on a PC, or the type of command line editor implemented under VMS you'll know the score. *LineEditor* intercepts the OS call to read a line of input from the user, so works in task windows, the command line and in Basic. You

can use the left and right cursor keys to move within the line you are currently typing and the up and down cursors to recall previous lines.

Obviously it's a matter of what you're used to, some people will prefer the copy system, some a line editor. The latter is definitely handy when you've just spotted a daft typing error right back at the start of the huge line you've just entered.



Peak viewing

Author: Jan Vibe

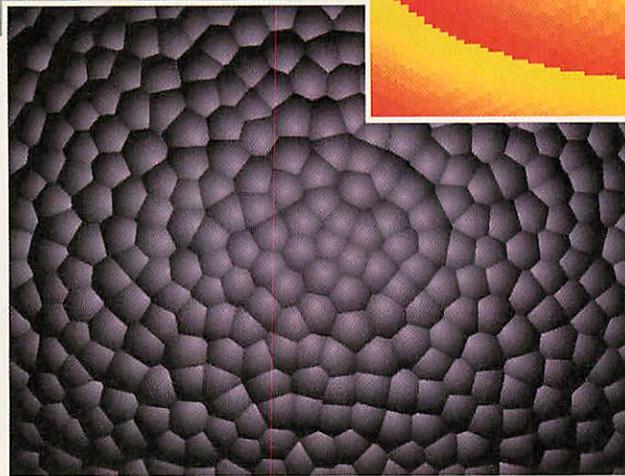
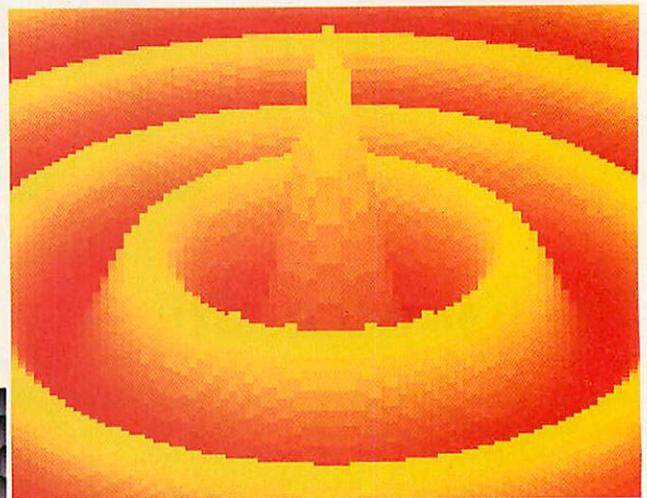
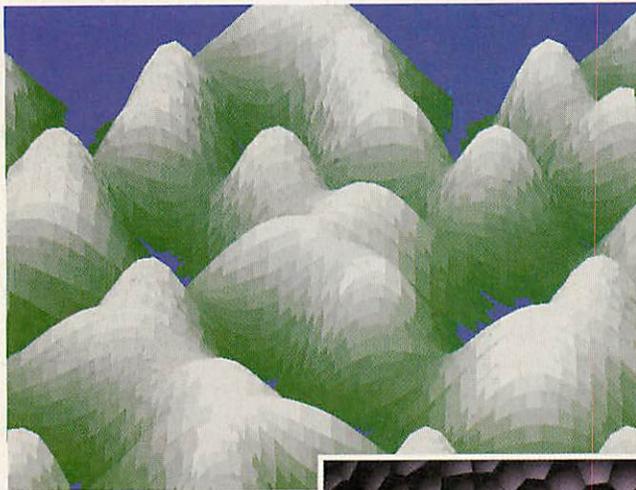
The peaks to be viewed are generated by none other than doodlemeister Jan Vibe's latest offerings.

Mountains generates a mountain landscape. *Mountains2* generates an even more convincing mountain landscape. If there were a *Mountains3* it would no doubt be so convincing that you could feel the very alpine breeze blowing alpinely through your curly locks. Sadly, version 3 has yet to be written.

However, Jan's other doodle did get as far as a third version. *Wave* is a one-liner, generating one of those 3D ripply wave-type

things we seem to feature from time to time. Not content with the simple splendour of *Wave*, Jan created *Wave2*, on not quite one-line, but filming the progress of the previously static wave. *Wave2* requires a megabyte or so, since it just grabs lots of screens as sprites.

Finally, *Wave3* achieves the same effect as its predecessor but in a much less memory-hungry manner. It does so simply by creating quarter-size sprites and then scaling them up at playback time - what a con eh?



A little extra something from Jan Vibe here with our own enhancement for the lucky Risc PC owners amongst us.

When we first saw *V_Tile* (or 'Voronoi Tile' to give the program its full title) it reminded us of past Vibe masterpieces, namely the likes of *Tentacles* and *Guts*. If you have seen either of these stomach-churning offerings, you will surely remember them.

V_Tile starts like many Vibisms with the statutory sphere generation. The sixteen colour palette is changed to a grey scale and a ball is plotted, with a little random element chucked in for that extra bit of surface texture.

This sphere is then grabbed as a sprite, and the screen is filled with white circles, each placed only where there is still a black pixel on the screen. The co-ordinates of each circle are stored in tables and these will be used for the tiles. This method of picking tile locations ensures that the screen is well covered and the tiles are evenly spaced.

Now, tiles are plotted in sequence. A circle is 'cut out' of the sphere sprite using its mask. Just where the incision is made depends on the position of the tile on the screen and by using different sections of the sphere, the finished pattern can be cleverly

highlighted in the middle.

Each tile is plotted in order, the diameter of the plotting circle reduced and the tiles plotted in the same order again. This process is repeated until the circle disappears to nothing. Adjacent tiles effectively fight it out, continually being plotted over each other. The final result is that neat edges are formed between tiles and the finished picture is most frog-spawn-like.

We thought that this little doodle would be a ripe candidate for upgrading to Risc PC level and *V_Tile+* is the imaginatively titled result.

A 256-colour palette mode is used, with the palette set initially to 256 shades of grey. The sphere generation is altered slightly to make use of the wider range of greys and the screen extended to 800 by 600.

At the end you will find the obligatory colour cycling, although we did resist the temptation for violent changes. When you have just 16 colours to choose from, gentle changes of hue are impossible to achieve, but with 256 colours and a subtly shaded picture like this, a slow cycling effect seems to work very well. Well Jan, hope you approve anyway!

Wipeout!

Author: Eddy Oland

Sorry, no state-of-the-art, textured polygon, 3D racing game, but a far more useful disc wiper. Because of the way ADFS works, it can take an inordinately large amount of time to delete all the files on a floppy, especially if they're distributed amongst a number of fiddly directories. There even comes a point when it would be quicker to reformat the disc rather than issue the dreaded *WIPE* command. This is where Eddy Oland's

disc wiper comes in handy.

It allows D and E format discs to be wiped quickly and easily. Unfortunately Eddy has not been able to include the code needed to wipe 1.6Mb F format discs. To use, just click on the icon on the icon bar to summon the control window, insert the disc and click on wipe. No confirmation is required, so make sure you haven't left your day's backup in the drive. If successful, the disc will be given

a new name as if it had been freshly formatted.

There is only one option available from the menu – the drive number configuration. If you have more than one drive, you can select to wipe drive from the icon bar menu. This selection can be saved permanently if you require.

If anyone would like to update the program to handle other disc formats, we would be very interested to see the results.

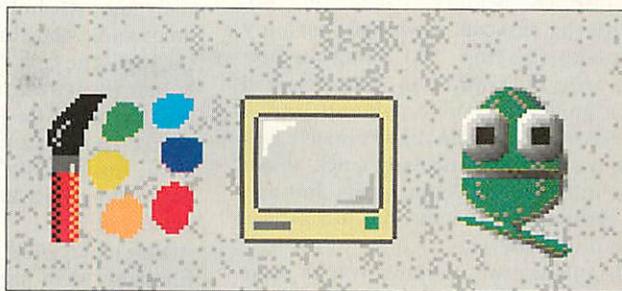
On the blink

Author: Andrew Ayre

Just when you thought there was nothing more that could be done to the poor old Acorn switcher icon, along comes *Blink* by Andrew Ayre of Hull. This little desktop silly is perhaps the nicest we've ever seen. It adheres to the principle that "less is more" and simply adds a pair of eyes to our little green friend in the corner.

Moving the pointer over the acorn induces a confused or even angry expression. Otherwise it will simply blink from time to time. Lack of mouse motion or keypresses will of course lead to the inevitable catnap.

The silly can use low or high-res sprites and swaps between them if necessary.



1-4 for a copy?

Author: Justin Fletcher

One of the most useful features of a multi-tasking desktop environment is the ability to drag and drop data from one application to another. With the steady progress of RISC OS over the years, most applications now comply to the Acorn data transfer protocols and happily communicate with each other. One department that is sadly lacking though, is the ability to move text to and from writable icons. Justin Fletcher has written *TextCopy* to fill this gap. Having loaded the module (double click *!Load*) you should be able to drag to and from writable icons as much as you like.

As a trivial example, Justin says try playing about with the Create New Sprite window in Paint, although not particularly useful, you can get to see all of *TextCopy*'s features. Try dragging a (small) text file on to the name icon, or dragging the icon back into a text editor. In addition, you can insert the file name (rather than its contents) by holding down Shift. This mimics most editors ability to do this. If for some reason you do *not* want *TextCopy* to do its thang, drag the icon with Ctrl held down. This temporarily prevents *TextCopy* from intercepting the drag.

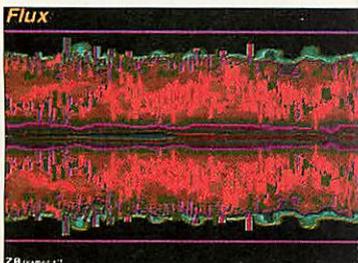
Loading *TextCopy* also loads another of Justin's modules *AllWCD*. This is needed because not all writable icons respond in the same way. There are actually two types of writable icons used by

the desktop – type 15 ('Writeable') and type 14 ('Write/Click/Drag'). Type 15 is a throwback to the Arthur operating system – all it does is claim the caret and never informs the owning application. Because of this *TextCopy* also never sees the click and so cannot process drags. Type 14, is the all-singing all-dancing button and that does everything *TextCopy* needs. The easiest way round this problem is to install the *AllWCD* module which intercepts the two WIMP calls *Wimp_CreateWindow* and *Wimp_CreateIcon* and converts all type 15 buttons into type 14!

If all this wasn't enough, a further feature of *TextCopy* allows you to effectively drag many icons to one destination. Having started dragging one icon, click on a second icon with Adjust, don't release Select though or you'll finish the drag. The text 'sprite' you are dragging will change to a small text sprite whilst you hold down Adjust, this means that the contents of this second icon have been added to the first (separated by a newline). You can continue adding icons to your selection as many times as you like. When you finish the drag, by dropping the textfile icon, the whole selection will be copied to the editor (or whatever). This is particularly useful for transferring names and address from a multi-field address book.

Rowe's column

Author: Barnaby Rowe



Well, Barnaby Rowe's regular bit of this column in fact. You will no doubt have come to know and love the techno throbings of Mr Rowe's compositions.

Barnaby sent us his usual plethora of tunes, some he tells us written for GCSE (whatever that is) and others for his pleasure, and indeed ours. Disc space limited as always, we picked the best. In his letter he said "I prefer *On The Scene*" and we do too, so here it is.

It is a Digital Symphony file using just four channels and looks splendid played with *Flux* (AU June 1995) which you will no doubt need to hear it if you are not equipped with Digital Symphony itself.

Watch this space for more musical offerings soon, and do send us your own compositions too.

A challenge...

Recently we have been developing a (Basic) program which produced reams and reams of textual output. Initially we were happy just seeing the text on screen, but after a while we wanted to transfer the results to an editor. The options were:

1. Change the code to output all text to a file (with BPUT etc. instead of print)
2. *SPOOL the output to a file.
3. Use the CLI's rather bizarre redirection operators { > file }.
4. Use a taskwindow.

Of these, 1 would have involved a fair amount of work and was not a particularly satisfying solution. 2 was messy – the results would still be printed on screen and therefore could not easily be run from within the desktop. 3 worked, but only outside the desktop – *RUNning the program with the redirection characters had to be done from the command line. 4 worked in the desktop. Unfortunately task windows are not particularly quick, so our poor little prog was taking an absolute age, not generating its results, but just getting them displayed!

The problem was to find a way to make redirection work from within the desktop and then simply send the resulting file to an editor. We decided the most useful way to do this would be by adding an option to Director's 'MenuMenu' (accessed by pressing Menu on the File '<name>' option on the filer menu, or by Select-Menu-clicking

on the title bar of Zap). Initial tests were conducted with an aliased command for speed though. Our first thought was:

```
*Set Alias$Redirect Run %*0 { >
|<Wimp$Scrap> }|Mfiler_Run
|<Wimp$Scrap>
```

The !'s were needed to stop Wimp\$Scrap being GStrans'ed immediately. The problem is that the CLI spots those {s and tries to do the redirection there and then! Escaping them with vertical bars is interesting – it turns them into square brackets. The first challenge is:

"How do you put { and } into an aliased command?"

In fact, it's not that hard and if you don't know, the answer's at the bottom of the page. The next stumbling block though is that even with the correct brackets in the line, when the CLI comes to parse the aliased command it throws away the rest of the line after the }. This means that the redirection must be the last thing in the command.

Here's our solution: If you Filer_Run a file rather than just Run it, it will be run by the filer, effectively queuing the command. We therefore tried swapping the two components of the alias around:

```
*Set Alias$Redirect Filer_Run
|<Wimp$Scrap> MRun %*0 { >
|<Wimp$Scrap }
```

Unfortunately, <Wimp\$Scrap> must exist, or the Filer_Run errors out with *File not found* straight away. Instead, we created another obey file (called *EdScrap*) containing the single line:

```
Filer_Run <Wimp$Scrap>
```

and setting our alias to:

```
*Set Alias$Redirect Filer_Run
EdScrap|MRun %*0 { > |<Wimp$Scrap }
```

This queues the running of *EdScrap* (and hence the loading of <Wimp\$Scrap> into an editor) until after the Basic prog has been run and redirected. With the alias command working, it was trivial to insert this command into Director's MenuMenu as an extra option under 'Filer_Boot'. With everything in place a couple of mouse clicks will run any prog and send the results to an editor 'instantly'. The second challenge though is:

'Can anyone think of a neater way of doing this?'

Answers:

1) How to put { and } into an alias: Read the manual section on GSTRANS - any ASCII code can be inserted by enclosing the value in < and >. The redirection sequence is therefore:

```
<123> > |<Wimp$Scrap> <125>
```

2) Any ideas let us know!

Away match

Author: David Waring

Matches is a two player desktop game. Each player, in turn, takes as many matches as they wish from one of the rows. The object of the game is to force your opponent to remove the last match. You can play against another person, or the computer, and can decide which player goes first. The author, David Waring warns: 'If you let the computer go first, it is virtually impossible to beat! It's pretty difficult to beat even if it goes second.'

Matches is actually the first in a series of desktop games we will be publishing over the coming months. For some reason, maybe the position of Jupiter or something, has meant that practically every

other submission we've received over the last month or so has been a desktop game! This is no bad thing as they're all rather fun to play in a dull moment. Expect to see such wonders as *Nine Man's Morris*, *Clump* and even the revival of *Hneftafl* over the next few issues. We'd like to perpetuate this series, so if you've knocked up a version of 'the L-game' or maybe revamped *info's own Chinese Chequers, please send them in to the usual address. The provision of a computer player will naturally win more brownie points. Perhaps if we receive a number of versions of the same game we'll set up a tournament...

*QUIT

All programs, hints, tips and what have you to the usual address please, viz:

*INFO, Acorn User, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP

or, if your submission is 100K or less

e-mail us (including your real address please) at:

austarinfo@idg.demon.co.uk

We know that most of you hate using paper, so don't worry about including a letter – just put your name, address and program title on every disc and include a text file containing your name, address, disc contents and program details. An SAE will ensure your discs are returned and usually a quicker response.

Compatibility table

Program	RISC OS 2	RISC OS 3.1	RISC OS 3.5+
Blink	No	Yes	Yes
Free Clock	Yes	Yes	Yes
Line Editor	Yes	Yes	Yes
Text copy	No	Yes	Yes
Wiper	Yes	Yes	Yes
Wimp Bar	No	Yes	Yes
Vibes (all)	Yes*	Yes*	Yes
Matches	Yes	Yes	Yes

Except V_tile+



Programs available for all ages and abilities.

- For school and home use •
 - PC and Acorn formats •
- Send for our free catalogue.

4Mation
Publishers of
quality educational
software since
1983.

4Mation Educational Resources
14 Castle Park Road
Barnstaple
Devon
EX32 8PA
☎ (01271) 25353



Report Writing
don't you just LOVE it!

...if not, contact us for details of our automated record keeping & report writing packages for teachers:

H.S. Software, Freepost, Swansea,
SA2 9ZZ Tel: (01792) 204519

"..NSTORE!...has to be a worthwhile investment for any Acorn School!"
-ACORN USER

visit our web site and download FREE demo software at:
<http://www.cybervillage.co.uk/acorn/hsoftware>

GENERATION DESIGN
QUALITY BUDGET GAMES

Caves of Confusion £ 8.99
RoboCatch £ 7.99
The Last CyberMoch £ 9.99
With Graphics by Walter Briggs.

Special Offer

Buy All Three For Only. £19.99

2 Whitecliff Gardens
Blandford Forum
Dorset DT11 7BU
01258 - 452507



BIG CHOICE

No PD Library offers a choice of PD as wide as Skyfall does. So don't bother collecting other PD libraries catalogue discs. Send for the one that counts. And choose Skyfall.

Please send £1 for the Printed Catalogue and demo disc to:



PO Box 2220
Birmingham B43 5RZ
Tel: 0121-358 7078

HIGH SPEED INTERNET ACCESS

New Dual High Speed Serial Interface Expansion Card

Provides two additional RS232 compatible serial interfaces

Baud rates from 50 to 230400 including 9600, 19200, 38400, 57600 and 115200

Software supplied includes Block Drivers for Hearsay II, ARCfax, ARCterm 7, Termite, Voyager, Internet Starter Kit (SLIPdial and TCPIP), etc

Can be fitted in A310, A440, A410/1, A420/1, A440/1, A540, A5000, A7000 and Risc PC. Modified version available for fitting in external expansion card connector of A3000.

Requires RISC OS 3.1 or later

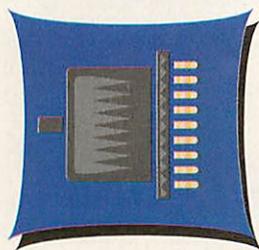
Modem, cable, card and communication software bundles available

Contact the Sales Office for further details

Other products include SCSI Interfaces, Discs, CD-ROM's and Tape Drives, IEEE488 Interface Cards, 8 and 16 Bit Parallel I/O Interface Cards, 12 Bit ADC Cards, STEbus Interface Cards, FORTRAN 77 Compiler, complete computer systems, etc

Intelligent Interfaces Ltd, P O Box 80, Eastleigh, Hants, SO53 2YX
Tel: 01703 261514 Fax: 01703 267904

II INTELLIGENT INTERFACES



There are many inspirations for my projects, but this one started from simple envy. While walking through Bolton Market I came across one of those fancy electrical stalls – you know the type, lava lamps and table top wave machines. In one cabinet was what looked like a rotating ball of coloured LEDs flashing different dotted patterns. I wanted one. I also did not want to pay the £80 they were asking. So I thought I would design an even better one.

The principle is very simple – just spin some LEDs round very fast and flash them on and off. The persistence of vision of your eyes makes it look as if you have streaks of light. If you control the flashing accurately enough you can make the patterns repeat. In a way this is similar to my old Magic Wand project from the July 1989 *Micro User*, but this time there is much more flexibility.

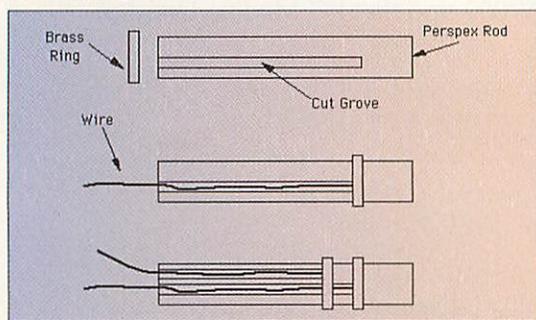
Now one problem with spinning LEDs is that you tend to get the wires a bit tangled up. I did consider several options but in the end came down on using simple slip rings for each LED. I was initially a little apprehensive at my mechanical construction ability but in the end it proved to be simpler than I thought.

The first step was to the local model shop where I found a perspex rod and brass tube that fitted neatly together. Then I purchased a miniature tube cutter and cut small pieces off the brass rod. At first I tried to cut as small a ring as I could but found that this was too small and settled for rings of about 6mm thickness.

Next a 7cm length of rod was cut off and a groove cut down most of its length. I did this with a miniature grinding stone that came with my miniature electric drill. It was not perfectly straight but then it didn't have to be. It needs to be deep enough to accommodate a thin insulated wire and still be able to slip the brass ring over the top.

Then, before pushing the ring on to the rod, I soldered the wire to the inside of the ring. You have to be careful not to make the blob of solder too big otherwise the ring won't slip over the rod. When it is in place a small spot of super-glue will secure it. Make sure the wire is long enough to reach your LEDs otherwise, like me, you will have to lengthen them which is a bit messy.

Figure 1: Building up the sliprings



Having slipped the first ring in place as shown in Figure 1, you need to cut a groove for the second. Naturally this is not as long as the first and I placed it on the opposite side of the rod. In all you need nine rings, one for each LED and one for the supply. Make sure you leave some space at each end of the perspex to connect the motor and the whizzer arms mechanically.

My next problem was that I couldn't decide whether to have an LED ball, like I saw on the market, or close-packed LEDs that I could view vertically so I could put patterns and even writing on them. In the end I compromised, and had both.

My next problem was that I couldn't decide whether to have an LED ball, like I saw on the market, or close-packed LEDs that I could view vertically so I could put patterns and even writing on them. In the end I compromised, and had both.

Run the

The next problem was the LED supports – I used the plastic cut from the walls of an IC tube. This was thin, strong and, most important of all, flexible. After all if you are going to whiz something round at high speed, the last thing you want to do is some damage, either to yourself or the machine when you accidentally brush against it.

And you will. I cut two slots in the end of the tube with a saw and looped the plastic strip over to form an inverted drop shape. I widened one slot and put a straight piece of plastic in this, ending up with the shapes you see in the photograph. The whole thing was secured with a little silicon rubber adhesive.

Next came the task of fitting the LEDs on to the plastic strip. I used miniature 3mm low current clear LEDs, red for the close packed cross beam and a variety of colours for the loop. I allowed myself the luxury of using two blue LEDs which are about eight times as expensive as the red ones, along with two red, two green and two yellow. The clear package makes a much sharper point of light than the diffused coloured packing.

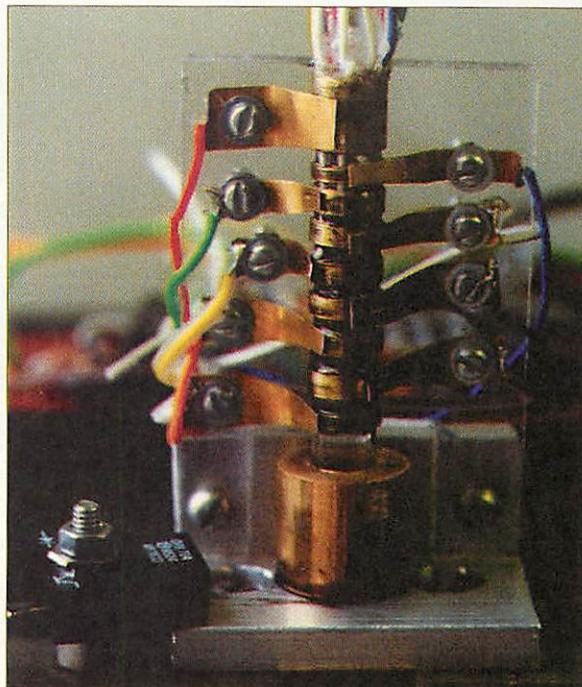
I put the coloured LEDs on the loop, by drilling 0.8mm holes 2.5mm apart and slotting the LEDs into them. I made sure that they were pointing horizontally, this meant that sometimes they were at an angle to the loop. Then each one was fixed in place using IPA adhesive. This was a long job because I had to do them one at a time as I had to clamp the loop at an angle to get them pointing horizontally.

Make sure you clip the leads of the LEDs to about 5mm before gluing them in place. Note that in an unclipped LED the anode, the positive connection, has the longer lead – make sure you preserve this when shortening them.

The red LEDs on the cross beam required a different technique. These straddled the plastic and are held in place using glue only. As all the anodes needed to be joined I bent the leads at right angles and soldered them together to form a firm foundation. When I tested the lights I found that the light from one LED would get into the lens of the one next to it and cause that to glow as well. Therefore, I very carefully painted the body of the LED with black enamel paint, just leaving the top of the lens clear. This meant when you looked down on them they sparkled like individual bright red stars.

Mike Cook starts to build a whizzy LED thingy

RISC



The final setup

The LEDs have to be wired up to the slip rings, the anodes of the cross beam wired up to the supply slip ring and their cathodes to the anodes of those on the loop. The cathodes of the loop LEDs are then wired up to the slip rings. Make sure that LED closest to the spindle on the cross beam is wired to the LED at the top of the loop, and so on. This is so that any pattern you program will have the same spatial relationship in both the horizontal and vertical direction. As long as you keep this order it does not matter which slip ring you use.

Now I mounted the slip rings on to the motor by making a small brass shaft coupler and used an L shaped bracket to mount a 7cm piece of perspex close to the shaft. On this I put the spring contacts that brush against the slip rings. I used thick brass foil, or thin brass sheet for this, carefully cutting out a 2cm finger, with a pair of sharp tin snips, and then drilling a 1.2mm hole in the end.

They need to be shaped so that they are narrower at the end that makes contact with the ring. This is to prevent them touching adjacent rings. The perspex was drilled in situ and the slip ring contacts fastened up using the smallest bolts I could find, that is M2 size. You can see the final arrangement on the close up photograph.

After mounting each slip ring contact I tested that both lights were working. I did have a bit of trouble with the super-glue seeping on to part of the rings and forming a transparent insulating layer. This necessitated my scraping it off with a sharp knife while examining it with a magnifying glass.

At this stage I could test the arrangement by wiring the LEDs temporarily to a resistor each and spinning the motor. I could see clearly that the idea was going to work but a few LEDs showed black gaps in the circle of light.

This was a perfect diagnostic test as it showed the exact position on the slip rings where contact was not being made. A little contact bending and slip ring scraping cured the problem. The system made somewhat of a squeaking noise, so I applied a small drop of electrolube to each slip ring. This is a lubricant especially made for electrical contacts and it worked a treat.

At this stage I should perhaps say a little bit about the motor. I found one in a junk box with an integrated gear box. It was a 24 volt motor and produced about 1,000 RPM at full speed. I

drove the motor from a variable bench supply, in this way I could easily alter the speed. The faster the motor the better the display so anything between 500 and 1,000 RPM should be fine. However, the faster the motor, the more wear is put on the moving components, so don't be too keen to use a really fast one.

Now to prepare the LEDs to be driven from the computer's printer port. I probably could have just got away with driving them directly from the port but I didn't want to risk any overload of the power dissipation limits of the port. So instead I used two open collector hex inverters. These would more than adequately drive the load, this is shown in Figure 2. As the coloured LEDs are a little less bright than the others I had to

put slightly different values of resistors in series so that the cross beam red LEDs were all the same brightness.

Finally I mounted and wired up a reflective opto-switch, this was so that the computer could detect the start of each revolution to synchronise its pattern, so that it appeared stationary. This was fixed so it pointed at the brass shaft coupler, which had a small square of black paint on it.

Normally the infrared light reflected from the brass giving a logic zero but when the painted area rotates into view you get a short logic one blip. I could have done the detection of the rotation with another slip ring that had a spot of insulating super glue on it, but I wanted to keep the number of slip rings to a minimum and besides, I didn't think of it in time. The shaft rotational detector part of this system is optional and you can do quite a lot without it.

Well now we have the hardware, how do we drive it and what sort of results does it produce? I'm afraid you will have to wait until next month to see when once again I will Run The Risc.

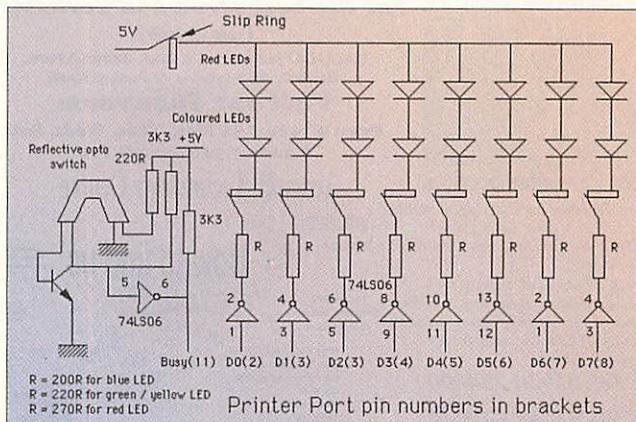


Figure 2: Preventing overloading the printer port

ACORN USER guide to local dealers

SURREY



Calancraft Ltd.

THE COMPLETE ACORN DEALER



- Showroom open 9.00 - 5.30 six days and to 8.00 on Thursday.
- Acorn range on display, and full demonstrations given.
- Lots of programs, games and education software for you to try.
- Full service and repair facilities.
- Acorn Approved Education Agent, Network Dealer and Training Centre.

"Very helpful people"

with a 12 year long reputation for exceptional service and support.

Easy parking.

96 High Road, Byfleet,
Surrey KT14 7QT



Tel: (01932) 342137

Fax: (01932) 336435

DERBYSHIRE

0% FINANCE SCHEME - 20% DEPOSIT 20 MONTHS TO PAY
ACORN ASSIST FINANCE SCHEMES

- COLOUR & MONO PRINTING
- CD-ROM DRIVES
- HARD DISC DRIVES
- MEMORY UPGRADES
- MODEMS FOR INTERNET ACCESS
- PRACTICAL ADVICE
- PRINTERS
- REPAIRS
- SCANNERS
- SCANNING SERVICE
- SOFTWARE
- SPARES
- TUITION
- TELEPHONE HOT LINE

*Acorns
at
Selective*



Acorn Approved Dealership

email - selective@globalnet.co.uk

Telephone 01332 690691

Facsimile 01332 690691

Selective Computer Services - 8 Old Gate Avenue - Weston on Trent - Derby - DE72 2ZZ

WEST YORKSHIRE

THE CHOICE OF EXPERIENCE

**For the best service in Yorkshire
(we think)**

CALL US! for A3010, A3020, A4000, A7000,
RiscPC, A4 Portable & Pocket Book

Visit our Showroom

Open 9.30 to 5.30 Mon, Tues, Weds, Sat.
9.30 to 7.30 Thurs & Fri.



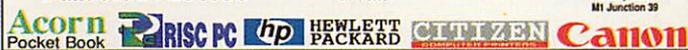
Davyn Computer Services

Printers, Ribbons, Ink Cartridges, Refills
Expert Advice & After Sales Service
Mail Order Master Card, Visa, Switch
Ring for Prices

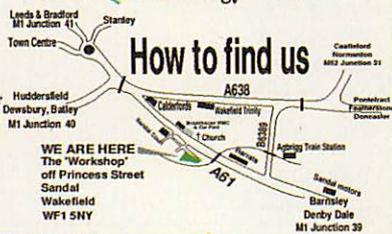
Service & Repair to all Equipment
Full Range of Acorn Hardware & Software
(We operate the Acorn Finance Schemes)
Full Range of Educational Software
in Stock & on Demo

Tel. 01924 254800

Fax. 01924 258036



Acorn Technology Centre



WE ARE HERE
The "Workshop"
off Princess Street
Sandal
Wakefield
WF1 5NY

WEST MIDLANDS



MAUDENS

"Millside", 133 High Street,
Wollaston, Stourbridge,
West Midlands, DY8 4NZ.



WITH RADDISSON
EDWARDIAN

*We have been supplying education
establishments for 15 years*

- Acorn Authorised Service Centre
- Authorised Microsoft re-seller
- PC Developers and Category 5 Networking Specialists
- New Showrooms with complete range of Acorn machines
- MAIL ORDER - It is our policy to match most prices on offer
- Come to our showrooms and view the Internet

With 15 years of service you can't go wrong with Maudens

Tel: (01384) 444433 / 833300. Fax: (01384) 441655

MIDLANDS AND OXFORD

DACO

459-465 Warwick Road, Tyseley, Birmingham B11 2JP

ACORN AGENT

Tel: 0121 706 8933 Fax: 0121 706 4306

- Home use
- Business
- Education
- Special Needs
- Software Training
- Acorn approved network installers
- Complete range of Acorn equipment
- Consultancy



**NOW OPEN
OUR NEW
SHOWROOM**

For expert advice
& friendly service
come and see us.

We are open
Monday - Friday
9.00am - 6.00pm

CUMBRIA

Acorn
Education Agency



Cumbria Software Systems

Specialist Acorn Dealer

Risc PC700, A7000
Sales, Repairs, Software, Peripherals

Network design and installation
Ethernet, Nexus ATM, Multi-platform networks

Semerc Authorised Dealer

CSS Ltd., Unit 3A, Townfoot Industrial Estate
Brampton, Cumbria, CA8 1SW

Tel: 016977 3779

Rambles through

Well, it's been a busy month for me at work – all my undergraduate exams have to be set for the summer and although that might not seem too far away when you read this, I am battling with snow while I write it.

Therefore there has not been too much time for matters computing, although I have been monitoring the latest results from the Galileo probe and the Hubble space telescope on the Internet. No progress on last month's problem with the MIDI and the PC card, but I have had many more letters and e-mails, so let's get on with the problems.

Richard Walker of Cleveland (via the Internet) informs us:

Regarding David Wilson's question in the January issue of *Acorn User*, it is indeed possible to connect an IDE CD-ROM externally. I myself made up an external hard disc system for a friend's A3000 from an HCCS IDE card, 24in ribbon cable, 500Mb 3.5in IDE drive and an old FileStore case.

This works fine; it's just a little large and has to be right next to the computer. For a CD-ROM, I would get hold of an external case (5.25in with a PSU) and fit an IDE (ATAPI compatible) CD-ROM drive, joined to the Acorn IDE bus inside the A5000. Choose a type of case that can go right next to or on top of the computer. I think EESOX sell the driver on disc for pre-RISC OS 3.60 computers for about £25.

Also, in a different letter, you say: *PC scanners won't work with Acorn's*. This is not true. If you buy a scanner which is parallel/SCSI/TWAIN compatible and Acorn TWAIN drivers exist for it (check with David Pilling) then it will work. Buy *ImageMaster* or *PhotoDesk II* for manipulation or scanning. This is, of course, only for flatbed scanners, not hand scanners.

Chris Jones from South Wirral writes:

I have been reading your articles in *Acorn User* and I am hoping you may be able to help me. I have been programming Acorn computers for eight or nine years, starting with an Electron and for the last five or six with an A3000.

I am also a keen musician and have played the guitar for seven years. I have over the last three years been getting into electronic music and using MIDI. Between myself and one of my friends we have a fair bit of equipment (a four track, a few modules and effects units, and a PC).

We also have a few old mono synths which is where the help is needed. What I

Acorn Wood

want to do is convert my A3000 into a controller for the mono synths. Rather than just simply to trigger notes and have different voices I want to have riffs which can be triggered. These riffs can be synchronised using MIDI time code, so there can be a lot more control over the synth, and more varied and interesting sounds produced.

You can get these old synths retrofitted to receive MIDI but it isn't very flexible. Usually you have note On, note Off, pitch bend, and maybe filter control. I want to be able to control all the switches and potentiometers from the computer to give complete control, ease of use, and setup.

I have no trouble in using machine code and have been using it since I was 13, so programming wise there are no problems. What I need is some information on using the 8-bit user port. I have been trying to find some books on using the user port without much success.

Can you recommend any books on basic electronic projects for the user port which may help me? I have a very basic understanding of electronics (what I did in A-Level Physics) but I have a friend who could help me. I need to get:

- 16 control voltages per synth — to control the potentiometers
- 16 switches per synth for, say, eight different synths, and to be able to set all of these about 64 to 256 times per second.

Do you think this is possible? I have already written a lot of the code for it but I need to get the hardware sorted out to get any further. So have you any suggestions, books or have you done any projects in past articles which may be of use to me?

Well, I was going along with you until you sprung that last one, 128 control voltages and 128 switches at 256 times a second all from one 8-bit port. That means you have 15.2µs to control each one, and synchronise it to MIDI — in a word, no.

I mean the ARM chip is good but not that good. Let's lower your sights and see what can be done. It is quite possible to control one synth with your computer

Mike Cook reviews more hardware aspects of Acorn machines

providing you don't want to do much else with it.

Now I am a bit surprised that you don't know how to use an 8-bit port – most of my projects connect to them. What you need to do is to study the first *Acorn User* Run The Risc articles in May 95 that told you all about using the printer port.

However, you now want to control your synths switches and all a computer will do is to provide a logic signal. While this can be like a switch it is not always the function a switch serves. For example a switch can supply power and remove it, just like a logic output.

But on the other hand a switch can connect an audio signal to a filter input; that's not like the logic output produced by the computer. To do this what you need is called an analogue switch. This has a logic control voltage applied to it and two lines into the chip go a very low resistance.

Remove the voltage and the lines go high resistance. This is like a switch, providing your signals are within the power rails of the chip. One such chip you could try is the 74HC4066, although the signals you do switch have to be between zero and five volts. If you find your synth signals being larger you have to go to a more complex arrangement.

The same goes for the pots. A pot can simply provide a voltage, just like a D/A (digital to analogue) converter, however it can act to tap off a certain proportion of a signal like a volume control. Just like the switch, one is quite easy to do and the other is difficult. If you want voltages the TDA8444 chip gives you eight D/As in one package, however, it fits on the I2C bus. This was featured in my December 95 article.

If you need the other sort of control you can get digital-controlled potentiometer chips – for example the X9312WP. Inevitably there is a price and these chips can be about £5 each, so for 16 you need £80 before you start on anything else.

So you can see the cost of converting all these synths would probably buy you a top-quality MIDI sound module. Like most things electronically, it can be done but is it worth the price and effort? However if you take it slowly and don't aim too high you will probably learn a lot. Unfortunately I don't know of any books that might help you on this specific project. The best I can suggest is that you keep on reading my articles.

Now a short one from Mr. I J Cleaver from the West Midlands:

I own a Risc PC600 with an internal CD ROM drive (Acorn) which I brought with the machine. I want to fit a second hard drive does it have to be a SCSI drive or can I fit another IDE drive. Also will I need a second slice to my machine?

You can only put two devices on an IDE interface, and as you have a hard disc and a CD drive you are full, so your best bet is to use a SCSI interface. You can get a second IDE interface but I have heard that there are some software snags about recognising the second interface. If you do fit a second IDE interface podule you will need to add a second slice, but with a SCSI you can add external devices and so there is no need to grow vertically.

Tony Frankl from London writes:

I still have one of your Fast A/D converter cards for a BBC Micro user port published in *The Micro User* of February 1987. I have recently been trying to get it to work on my A5000 with a user port podule.

When I run your original program under 65Host it is about a hundredth of the speed of the BBC B. Translating your program for running on in BASIC 5 produced little improvement. I suppose that OS_Bytes 150 and 151 must be no faster than direct memory access on the BBC B.

If you have a solution to the problem of fast access to external hardware perhaps this could make another AU article?

The problem here is that the old BBC computer was very efficient at talking to interfacing chips. You could just poke in

straight from Basic or go into machine code, disable the interrupts and have the computer just execute your code.

Now with the ARM chip you have to slow it down to talk to the interface chip, so that part is running at the same speed. Also you can't simply poke numbers from Basic as area of memory the interface chips occupy is protected.

Therefore you have a limited choice. You can go through the OS_Byte calls, but as you have found this is slow. You can get a speed increase if you use the Podule_RawRead calls as illustrated in the Christmas 95 *Acorn User* Run the Risc article.

Finally, for the ultimate speed up, you can do the whole thing in machine code by first entering the Supervisor mode. I have showed how to do this in several articles. The one that springs to mind is the August 93 Body Build article in *Acorn Computing*. This was about a linear CCD sensor and you need fast access to drive it.

So the major slow down with Risc machines is the jumping in and out of Basic, but there is also another problem. You can't entirely have the machine to yourself. That is interrupts and cycle stealing for the sound and video make it impossible to output a steady regular signal with software, as you could with the early machines. Therefore the strategy of some projects has to be changed to achieve the same results. It is these techniques I have, and will, cover in the Run the Risc articles.

Paul Roegle from Norfolk writes:

I have recently been looking through the December 1991 issue of *The Micro User* and I found one of your articles about building a sound sampler that uses the printer port. I would like to build this unit, but I do not know whether or not it would work with my computer.

I have an A3000 with 2Mb RAM, RISC OS 3.10 and nothing else. Will this unit work with RISC OS 3.10 and with a unidirectional printer port? Also, how can I get a copy of the sampler software?

Also, I have tried your latest project — connecting a Sega Mega Drive pad to the computer using the printer port — but I could not get any response when I pressed the keys on the pad. I loaded in the Bi_Directional module and the module on the cover disc but when using the monitor program supplied, I could get no result from pressing the keys. Do you have any idea what is wrong.

I think you have misunderstood what the Bi_Directional module does. It will not magically make a single direction printer port into a bidirectional one. What it does is to drive the hardware described in the September *Acorn User* to make that look like a bidirectional port. Therefore to use a Sega game pad with your computer you need that extra hardware.

The sound sampler on the other hand was designed to be used with a single direction printer port and will work on your machine. The software was on the cover CD of the April 95 *Acorn User*. You can get it off the Internet or I can send you a disc for £1 to cover postage and handling. I also have a few PCBs left so you could get one of those from me for £5. Finally you might have trouble getting hold of the A/D chip. Again I can supply this for £6. I hope this has been of some help.

Finally Brian Yewdall from West Yorkshire writes:

As a new subscriber I am still finding my feet around RISC OS. My problem is a cost effective way of backing up my hard drive (420 Mb IDE) fitted into a 440/1 with RISC OS 3.11 with 8Mb of RAM. At present the low density floppy drive is awaiting replacement by a high density version (Beebug) but this to me still seems a pain (back up 200Mb at present). For reasons of cost I have discounted buying the existing 2 and 4Gb tape streamers I have seen advertised.

One option could be the new removable Zip drives currently being advertised in the Mac mags. These are about £150 and you would need a SCSI card. The replaceable cartridges cost about £15 and hold 100Mb.

Also, at about the same price is the SyQuest 135Mb cartridge. However, think. Do you really need to back up all your disc? Much of this will be applications supplied to you on floppy so you already have a back up of those.

Therefore all you need is a backup of the work you create. I have found a good strategy is to use the hard drive for all my applications and then hold my work on floppies. With the correct directory structure for your way of working, you should only need to make a copy of the documents you have changed that day. In that way there is no need for massive back-up sessions which quickly lose their novelty.

Back issues

Missed out on one of our previous issues? Now's your chance to bring your collection up to date, but hurry: stocks are limited.

Issue 156 – June 1995

- TJ Reproductions ● How the Acorn User CD-ROM was cut ● PC card lab test ● 16-bit Risc PC sound card ● Cumana SCSI 2 card

Issue 157 – July 1995

- Details of the StronARM deal ● MacroLife ● Prophet 2 reviewed ● How the Black Country Kodak CD was produced ● Mark Smith interview

Issue 158 – August 1995

- Elite on the cover disc ● Technquest report ● Ovation Pro preview ● How a shool won with Acorns ● Acorn's C/C++ compiler ● Animation software reviewed

Issue 159 – September 1995

- The A7000 and new Risc PCs ● Taos ● How Elite was written ● Hard disc backup on the cover disc

Issue 160 – October 1995

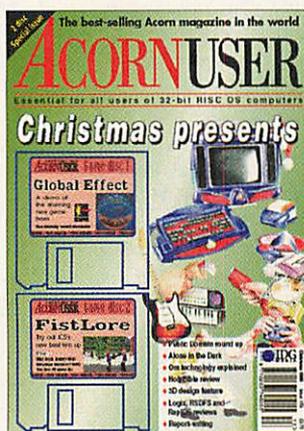
- The Acorn User WWW site ● Director ● Fire and Ice ● Compo ● Acorn's education agents scheme

Issue 161 – November 1995

- Acorn User awards ● CD-ROM roundup ● Graphic design ● Crystal Rainforest 2 demo

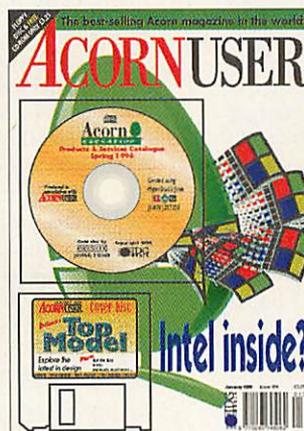
Issue 162 – December 1995

- Cambridge Om trial ● Internet package ● Acorn's new divisions ● Software for dyslexics ● Skillsware



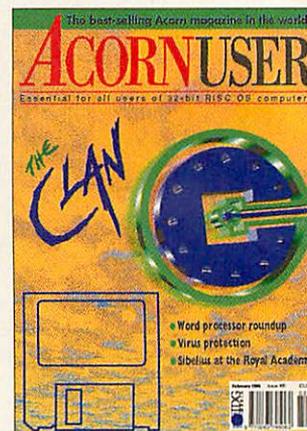
Issue 163 – Christmas 1995

- Unusual gifts for Christmas ● PD round-up ● Alone in the Dark ● Global Effect demo ● Online Media Technology



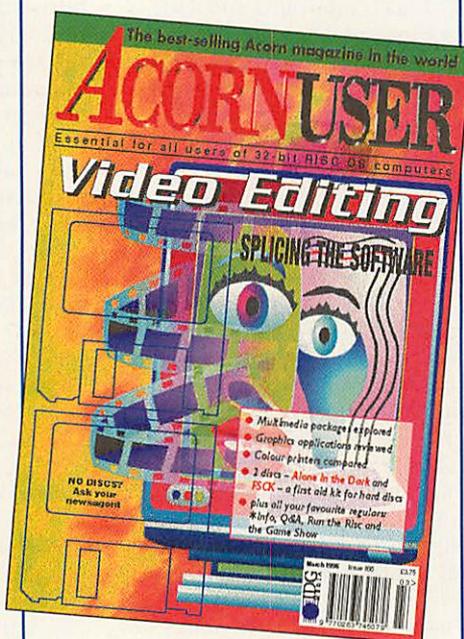
Issue 164 – January 1996

- Hybrid machines ● Travelling with a Pocket book ● Virtual design ● Acorn Educational Products & services Catalogue ● Top Model demo



Issue 165 – February 1996

- Word processing round-up ● The Clan ● Virus protection ● Sibelius at the Royal Academy ● Resource editor demo



Issue 166 – March 1996

- Video editing ● Multimedia packages ● Graphics applications ● Colour printers ● Alone in the dark demo ● FSCK

Order form

- Issue 156, June 1995£3.25
- Issue 157, July 1995.....£3.25
- Issue 158, August 1995.....£3.25
- Issue 159, September 1995.....£3.25
- Issue 160, October 1995.....£3.25
- Issue 162, December 1995£3.25
- Issue 163, Christmas 1995.....£3.75
- Issue 164, January 1996£3.25
- Issue 165, February 1996£3.25
- Issue 166, March 1996.....£3.75

Name

Address

.....Tel No

Please allow 14 days for delivery. Send cheques payable to

IDG Media to:

Acorn User Back Issues, Database Direct,
FREEPOST, South Wirral L65 3EB
or phone 0151 357 1275

Fax: 0151 357 2813

E-mail: database@dbdirect.demon.co.uk

Please tick if you do NOT wish to receive further information or special offers

SOFTWARE SHOWCASE

EDUCATION

Xavier Software for Dyslexia / Literacy skills

Wide range of specialist programs, available on 28 day approval. Digitised speech throughout. See review in Acorn User Dec. 95 or CDROM January 96. Illustrated catalogue from : **Xavier Educational Software Ltd.**
Psychology Dept, University College of Wales, Bangor, Gwynedd LL57 2DG Tel: 01248-382616 Fax: 01248-382599
<http://www.psych.bangor.ac.uk/deptpsych/xavier/>
email: pss005@bangor.ac.uk

BUREAU

PRINTMAKER

CUT VINYL BUREAU

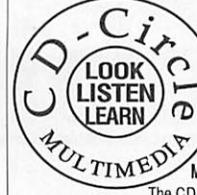
LETTERING, LOGOS & DECALS
cut in self-adhesive vinyl on our plotter from Acorn DRAW files.
Any size, colour and quantity.

Ideal for Signs, Van sides, Car Decals & Exhibition graphics.

Tel 01734 567947 Fax 01734 561112
14 Eldon Terrace Reading Berks RG1 4DX
Contact Chris Mercier Email: mercier@argonet.co.uk

MULTIMEDIA

The Acorn RISC-OS CD-ROM User Group



£32.50 Join offer

GIVES YOU 1 Years subscription & PDCD-1(issue2) with manual. Contains over 800 Megabytes of 'Archived' RISC-OS material. Educational, Music, Classic Demo's Graphics, 2000+ClipArt, Draw/Sprite, Acorn Pocket Book, Literature, Games, Many programmes suitable for Schools

The CD-ROM contains something for everyone.

For Trial News/Catalogue Disk - Send 2 First Class Stamps to:
CD Circle PO Box 332 Bristol BS99 7XL

GRAPHICS

Dixon & Dixon

35 Rokeby Drive, Kenton
Newcastle upon Tyne NE3 4JY

0191 2853 042

North East Acorn Dealer

Textile Transfer Paper

Truly Remarkable and Revolutionary
Print it - Iron it - Wear it

4 Sheets A4	30 Sheets A4	100 Sheets
£8	£44	£140

Hobby Kit - includes 2 T-Shirts and 4 Transfer sheets 12.99

MouseMat Kit - Your favourite Pin-Up to stare at 5.99

Refill your inkjet with UVLR ink

No Fade Ultra Violet Light Resistant ALL COLOURS

3 Refills (60 ml) for 18.80 inc VAT & postage

FLUSH SOLUTION (why not change your cartridge colour)

Flush out the old refill with new £5.00 inc VAT & postage

TWIN REFILLS FOR ALL INKJETS FROM 11.98

Cartridges for JP150's £19.96

FLYPRINT	£ 19.97
DEAD CERT	£ 19.00
KEYBOARD EMULATOR	£ 9.99

Prices inc VAT £1 postage UK mainland

UTILITIES

WORD THE ULTIMATE CROSSWORD APPLICATION

Fully multi-tasking and so instinctively easy to use. Ideal for school and home use. Solve and design puzzles. Output to printer & iDraw. Dictionary, sample puzzles, manual, plastic wallet, postage & VAT all included.

NOW ONLY £29.95 (site licence £75)

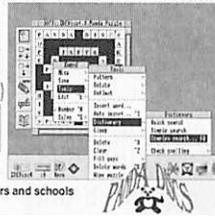
PANDA DISCS, Dept (AU395), Four Seasons, Tinkers Lane, BREWOOD, Staffs., ST19 9DE.

NEW SUPPORT DISC £9.95

Pro blank grids, new puzzles and ideas.

XWORD recommended by many teachers and schools

Demo disc of all Panda products £1-50



ACORN USER NO OTHER. RING ACQUIRE KNOWLEDGE SOON 01625 878888

BUSINESS SOFTWARE

DSL SUPPLIES

SPECIAL OFFERS!

35% OFF ARMLOCK!

Single User £22.75 Save £12.25!

10 User £90.35 Save £48.65!

35% OFF SQUIRREL!

Single User £90.35 Save £48.65!

10 User £361.40 Save £194.60!

All prices exclude post & packing

DSL SUPPLIES

St Margaret's Lane

FAREHAM

Hants PO14 4BQ

Tel/Fax 01329 841600



ACORNUSER ADVERTISERS INDEX

4 Mation	77	Dec Data	64	Mauden Sales	80
5 Star Marketing	64	Desktop Projects	22	Panda Discs	85
AJS Computers	66	Dixon and Dixon	85	Pineapple Software	IBC
Akalat Publishing	66	Doggysoft	19	Printmaker	85
ANT	OBC	DSL Supplies	85	Selective Computer Services	80
APDL	71	Eesox	51	Serious Statistical Software	66
Atomwide	52	First Computer Centre	61	Skyfall Pd	47, 77
Beebug	11, 12	Generation Design	77	Sherston Software	42
C.S.S.	80	GLC Electronic Services	51	Softcentre	71
Calancraft	80	H.S. Software	77	Softease	71
Care Electronics	51	Ian Copestake Software Ltd	6, 7	Technology Matrix	37
Castle Technolgy	15	lfel	48	The Datafile	28
Computer Concepts	IFC, 16	Innovative Media Solutions	85	The Datastore	66
Daco Systems	80	Intelligent Interfaces	77	Uniqueway	64
Dalriada Data	71	Irlam Instruments	8	Xavier Educational Software	85
Davyn Computer Services	32, 80	ISV Products	47		

Fantastic Freebies and offers

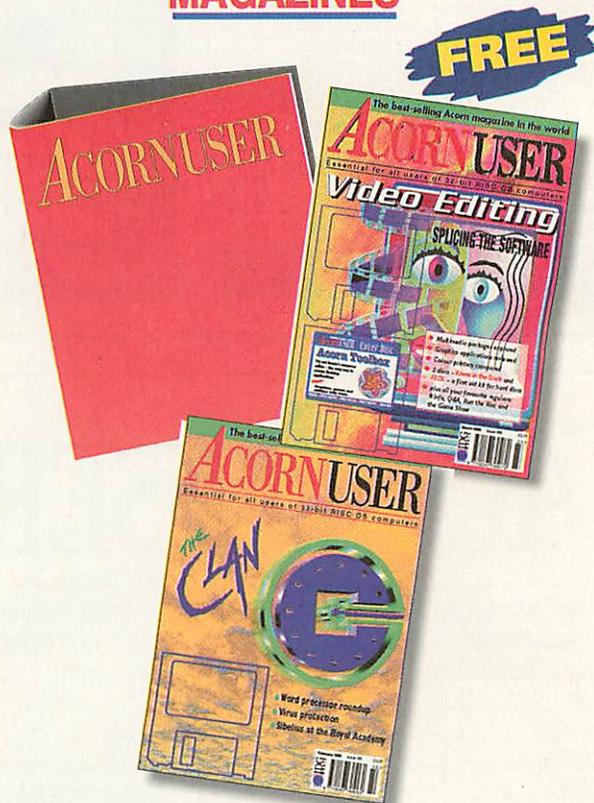
when you subscribe to **ACORN USER**

Choose any one of these excellent free gifts or special offers when you subscribe to the most established, informative Acorn magazine in the world, each and every month.

Subscribing takes out the hassle of trekking down to the newsagents each month as every issue is delivered to your door, postage free. You're also protected against any cover price rises that may take place over the duration of your subscription.

The best way to subscribe is by continuous quarterly direct debit, where you can spread the cost with a small payment each quarter, rather than paying one lump sum in advance. Plus – you can forget about the worry of your subscription ever lapsing, as it runs until you are ready to cancel.

BINDER & TWO FREE MAGAZINES



FREE £50 HOLIDAY VOUCHER

Acorn User gives you £50 off your next holiday abroad!



Offer entitles recipient to £50 reduction on most ABTA tour operators' brochures when booked with Xpert travel Limited. Valid for minimum two people, seven days holiday overseas. Further information available on request. Only available for UK residents

Exclusive to Acorn User this binder will hold up to 13 issues of your favourite magazine. PLUS receive an extra two magazines absolutely FREE!

A new look for AU?

I recently took the latest copy of AU up to the cafe, to peruse it while eating my lunch. I placed it on my tray, along with the food I was going to buy, and promptly spilt an entire cup of hot chocolate all over it. 'Darn!' I exclaimed — well, maybe not exactly *darn* — as I began mopping up.

I paid for the food and sat down to a rather soggy magazine. After spending 10 minutes separating the pages (compare and contrast York University Hot Chocolate and Loctite Superglue), I noticed that the entire magazine now had a rather attractive beige border on every page. It looked almost like it was supposed to be there (apart from being slightly sticky and smelling of chocolate).

I was going to send you one of the pages, but it seems that MIME doesn't seem to support a Content-Type of *torn-off-bit-of-paper*. Anyway, try it yourself — I'm sure if you were to include the border on subsequent issues, sales would increase dramatically. Of course, you could probably scan one and then print it on to the others, rather than having to dip each copy in hot chocolate. In the light of my revenue-increasing suggestion, could you please send me a free Risc PC? Oh OK — how about a mouse mat then?

Dave (davidl@minster.york.ac.uk)

How about the silliest letter of the month award? An empty polystyrene cup that once contained hot chocolate.

Irlam ColourMobile scanner

With regards to the review of Irlam Instruments' ColourMobile in the March edition of *Acorn User*, we would like to raise a few points:

Poor colour definition was probably the result of failing to allow the scanner to warm up enough. The latest version of the software (v1.30) automatically waits for the scanner to warm-up.

Existing owners can upgrade (free of charge) by returning their original disc with a stamped addressed envelope.

The software does stream scanned data directly to the hard disk. A 24-bit scan of a 6in x 4in photographic print at 400dpi requires well over 14Mb — little wonder that a 9Mb Risc PC could not cope with this. The same scan at a modest 100dpi would require under

Letters



1Mb.

An image-stitching package is available, to allow the user to scan images which are wider than the scanner itself. The package costs £25 + VAT, and includes a A4 size trackpad to ensure straight scans.

Chris Searle,
Irlam Instruments Ltd

A change of direction?

I hope that *Acorn User* will soon return to having a more optimistic outlook on the Acorn computing range, rather than the pessimistic outlook both some of your readers and the magazine seen to hold about the future for Acorn, RISC OS etc, of which I have become tired. I would much prefer the focus on the positive aspects of the Acorn market, its new found potential, and recognition that computing in general is undergoing fundamental change which can be exploited.

I am a database developer in a small IT department, using Oracle Designer 2000 toolset, in a company with a turn-over of about £40M. I read weekly computer newspapers and try to keep myself informed about the future of business computing. I use a 486DX2 66MHz with 40Mb RAM and a 1Gb hard disc to fulfil my job function and with such a machine, who would expect to have memory problems from applications, but I do.

I frequently re-boot the PC simply to clear DOS memory and start again, and don't you just love those windows *General Protection Faults* that discard all your work, just as you're doing something complicated like moving a frame, or saving your file in MS Word.

Of course the CPU is now a bit slow at screen handling, but we can't change that, as the manufacturers (Olivetti) haven't made a suitable Pentium card. This, I believe, is the common reality of the PC World, the software continually outstrips the chip technology and one had to forever upgrade to run the latest software.

The deal struck with Oracle

should impact the corporate database functionality for the following reason: Historically databases have used Unix servers with a large number of text mode terminals (VT100, and so on) as the user interface.

With the advent of Windows on the PC there has been a migration to the world of GUI interfaces for database users, which has resulted in a serious drop in the stability of the terminal — this is a view generally accepted in the industry. Also PCs still fail to deliver much of the functionality that GUI's are supposed to provide unless top of the range equipment is used.

Oracle are attempting to move databases back to a more stable and flexible mode of use.

Our database PC's at work are 100MHz DX4 with 16Mb RAM and this is the recommended *minimum* configuration to successfully run Oracle Forms and Reports, and we still run out of memory as some reports compile, leading to reboots. By offering low-cost 32-bit RISC OS — TCP/IP terminals, Oracle can now offer a simple reliable device, that provides a windows environment that can be used in a LAN (local area network) directly, or via the Internet, on a WAN (wide area network) and that will deliver rapid screen response to put information, images or video on display.

The Java language offered by Sun Microsystems releases users from single Operating System dependence and applications are now available to cover most common requirements such as WP and Spreadsheets.

When used in a corporate LAN environment, the network response is fast enough to support server-based applications (the applications are stored on a central computer not on the individual machines) and the inclusion of video in MPEG should be practicable with StrongArm CPU's.

The impact of World Wide Web browsers in the domestic market is generally over-hyped, more realistically, in the USA about 60% of WWW development is for internal use by corporations across LAN's and

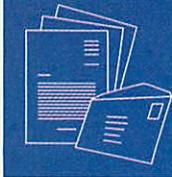
LAN's interconnected by the Internet or other WAN's, protected by encryption and firewalls and not used for releasing company material on the Internet.

This is the so-called Intranet, which has remained free from media hype, this is where global computing will go and in significant numbers. The impact of Oracle offering a terminal that out-performs a PC in many important ways, that's cheaper and more mobile, will have significant repercussions on the sales of Acorn equipment, far more reaching than is suggested by the Acorn press.

It's a common misconception that people *outside* the PC market think that those *inside* it think PCs are great, but most business users tolerate them because of the lack of competitive alternatives. OS/2 is the only real alternative to Windows 3.1 or '95 and is still steadily gaining ground, despite IBM's lack of direction, post the Warp release. its only drawback is it doesn't come pre-installed and so you have to buy and install it yourself.

Apples are too expensive and X-terminals cost a small fortune. Soon the Internet terminal offering will compete in this arena, backed by the world's third largest software company, Oracle, with suitable marketing support, who knows, perhaps ARM or Digital will advertise the processor technology, in competition to Intel and use an equally irksome jingle.

The Microsoft PR machine is already at work, attempting to carry out damage limitation on this Oracle initiative, claiming they are already working on such a device and belittling its application. It is, after all, a very different perspective to the one that Bill Gates put forward in his book on the future of computing, even though he is now re-directing Microsoft effort with Windows '95 at the Internet and Java, away from his own grand vision.



The main difference between RISC OS and Windows is that the former is far more resource efficient. I recently saw a Pentium machine with 32Mb RAM display an AVI video and it regularly froze while the CPU processed the video data. This compares very badly with my Risc PC 700 5Mb system which displays Replay in various modes including multiframe, without a hiccup.

I am yet to be convinced that RISC OS has serious limitations, because lack of Virtual Memory Management and all the utilities that Windows provide to configure the system to your own needs. Graphics aside what application running, uses such vast amounts of memory, I can happily run *Impression* and *Artworks* together and in a corporate environment the last thing we need are users setting up their machines to personalise them, as this inevitably leads to a problem with support somewhere down the line.

The virtual swap file on a PC is sized optimally at 50% of the available RAM, if it is greater it favours disc access and slows the machine down. Also in the mode that the internet terminal operated, virtual memory is unnecessary because it doesn't have a hard disc.

The traditional market place for Acorn is the education market, however I am sure that schools are migrating to PCs because that is the operating system of the moment and to ensure that your schools' children are not prejudiced in the work environment then schools will use PCs. Last week in *Computing* a school defined as an "Acorn" school actually said as much to the PC audience. It is important therefore for Acorn to be seen at the sharp end of technology and gaining acceptance in the business community, before the schools user base migrates to end of the Microsoft dominated computer line.

Yes, I am an Acorn yuppie, I have had an A3000 4Mb system RISC OS 2 (couldn't afford the upgrade syndrome) for 6 years with 3 crashes running applications in that period. I now also have the 5Mb Risc PC 700 which has repeatedly been taken into work, to prepare management reports, as I find running *Impression* easier and

more reliable than MS Word — and we don't have a comparable vector package to *Artworks* available.

This has created awareness of Acorn in a PC company. The only fault anyone finds with it is, well it's not really running industry standard software. But from the Finance Director down, people compliment the presentations produced. Unfortunately they do not question why, given their sophisticated word processor, it is the non-standard machine and software that produce better results.

I hope you appreciate the viewpoint and that the direction that Oracle may be taking Acorn will be more clearly debated in future issues. I personally feel that Oracle are unlikely to be a threat to the independence of Acorn as they have consistently avoided becoming associated with any specific platform, purchasing Acorn or part of ARM would remove this independence.

Roland Major,
Droitwich, Worcs

What's going on?

Over the last several months, I have read a number of debates over a variety of issues concerning the Acorn platform. In particular it's viability seems to be a particular hot-potato and I must say that I find it very difficult sometimes to either convince myself to stick and more importantly to convince others that it represents a wise choice — but I built my own car so that must put me beyond the main stream, so it's unlikely I'll switch.

What prompted this letter originated from those sources and also what I read in the February edition was sort of clarification on these issues. I must also add that my knowledge of any programming is zero and currently having just bought a copy of *Style*, I'm trying to establish myself in what it can do, so the layout may be shaky!

The article written by Jim Nagel in *Computer Shopper* concerns the Computer Concepts/C++ debate. It seems clear from the article that there are now two camps: those who say that the C++ absence is preventing any further development on software and

those who say it's irrelevant.

The former camp seem to be those attempting to cash in on the mega sales of DOS-boxes (i.e., CC and Colton) and those who appear to be writing exclusively for Acorns. In fact the comment from the people at Oak stated it was irrelevant and an avenue not to go down. Now the question I ask is: Can someone tell me what's going on, as I haven't the faintest idea what this actually means? Yet it would seem to be quite important to follow this avenue as it surely affects everyone who owns an Acorn.

The other main part concerns what Charles Moir said in the article, which I would also like to know more about:

1. Windows '95 a better OS than RISC OS — if it needs a 16Mb Pentium and uses 50Mb of your hard disc to be a serious user and it's still 'full of bugs' (allegedly!) — I want to know why?

2. 'not much more business to be done on the Acorn side.' What do the likes of Beebug and Clares think?

3. 'the multiprocessor OS (Taos) is utterly irrelevant.' Explain please.

4. Windows NT with a Windows 95 front end is already available as a multiprocessor multithreaded OS will be 'the ultimate OS that will rule the world.' What does Larry Ellison think about that? Also is it possible to explain what a multiprocessor, multithreaded OS is, so that morons like me can understand?

The other important part of the article concerned the vast amount of space taken up by C++ programs. the comparison made between *Artworks* and *Xara Studio* quite staggered me and the consequences of adopting it are surely very significant? What comments do you have?

This seems to be the tip of an ideological iceberg. So would it make the basis for an article of series for dimbos such as myself? Or am I tempting fate at instigating a mass exodus towards dosland?

I only hope I haven't started a huge tangential debate, that's not my intention only to ask serious questions that others are hopefully also asking. I also hope you can give some comprehensive answers for which I

thank you in advance.

Tony Evans,
Huntingdon, Cambs

Taking your main questions in turn:

The only way to judge the true value of an operating system is in terms of computer power delivered to the user. There has been no analysis of Windows '95 with respect to other OSes therefore it's all opinion. However many users have gone back to Windows 3.1 after having tried Windows '95.

The interview you refer to took place before all the latest upheavals in the Acorn market so the answer is probably meaningless. I don't think anybody really knows what's going to happen, it's all pretty exciting though.

Multiprocessor OS irrelevant? Well, a multiprocessor OS will deliver more raw power, some applications will benefit, others won't. A word processor will not be affected much, a DTP or image processor will eat the power.

Multiprocessor, multithreaded Windows '95? First off, multiprocessor means exactly that, in practical terms it should mean more power, multithreaded actually refers to an particular application having more than one thing going on inside it at one time, so a multiprocessor multithreaded OS can do more than one thing at a time on more than one processor. As far as Win'95 itself goes, just refer to my comments on your first question.

The C++ argument is fairly spurious, I believe. It is quite practical to write programs in C (obviously) it's just easier to write big programs with hopefully fewer bugs in C++. However it still comes down to the programmer in the end. A bad programmer will write bad C++ with the same alacrity as he'll write bad C (or bad Basic or bad anything else).

It would be nice to have a fully functioning C++ instead of the incomplete substitute of CFront, but it's not the end of the world.



We were originally doing very well because we could easily undercut Macs and PCs. The problem came around late 1993 when these two rival systems came crashing down in price.

The Regan files

As an ex-art student, I know that 3D design students always have to design a park bench as part of their undergraduate course. I have often wondered why, and today I find out: Aaron Timbrell of iSV lets me into the secret.

'I originally studied Industrial Design at South Glamorgan; this was when Acorn released the 32-bit machine - in fact I bought one of the original A310s. The first computer I had was in 1981 - a Commodore Vic 20. I thought it was brilliant because it had colour and sound, wow! At the time most computers were monochrome and went 'bip' (like 'beep' but even weedier).'

Aaron eventually blew his early BBC due to some over-ambitious electronics. His A310 was pressed into service at college for rendering his designs using Silicon Vision's *SolidCAD*. This was all done on a 1Mb machine with a floppy disc drive and no hard disc; Aaron wrote all his own compression routines to squash the files down, and allow him to run an animated demo off a floppy.

'At the time there were only two Apple Macs and a grotty printer in the design faculty. It was amusing to watch people trying to use these 'serious design machines', knowing that I could go off home and do full-colour renderings on my little A310.

Aaron graduated in the late eighties, the recession was on the horizon and basically there were no jobs in design.

'I went through a couple of naff jobs: one restoring VW Beetles and one working for BT in the 'total quality management' division, which shut after six months. I was lucky, because I had been sending off CVs, making a nuisance of myself and actually got a design job. One of the things I was asked to do was to design photo-booths, but when the designs were showed to the clients they said 'No'.

Ghosts from Aaron's past jobs have occasionally returned to haunt him. 'When my wife and I were jetting off for our honeymoon from Gatwick the plane was delayed. I can't sit still for a minute, so I went wandering and there round the corner waiting for me was my photo-booth. It was my design, except that the company had missed off the kitsch green marble that I had used. I took a photo of it

there and then; the first photograph on my honeymoon' And they say romance is dead.

Aaron's next job was for the Electronic Font Foundry (EFF), where he got his grounding in business. He put together the original Acorn DTP system for EFF, which sold in respectable numbers to small printers.

Sensing an opening in the market, Acorn decided to set up a DTP sales operation itself, an area axed in Acorn's recent rationalisation. Aaron was not impressed: 'Acorn's attempt to sell DTP systems to the professional market was a complete waste of space. It was misguided load of old tat. I was not the only person selling systems at EFF and I know that I personally sold more publishing systems than the whole of Acorn's professional sales department.

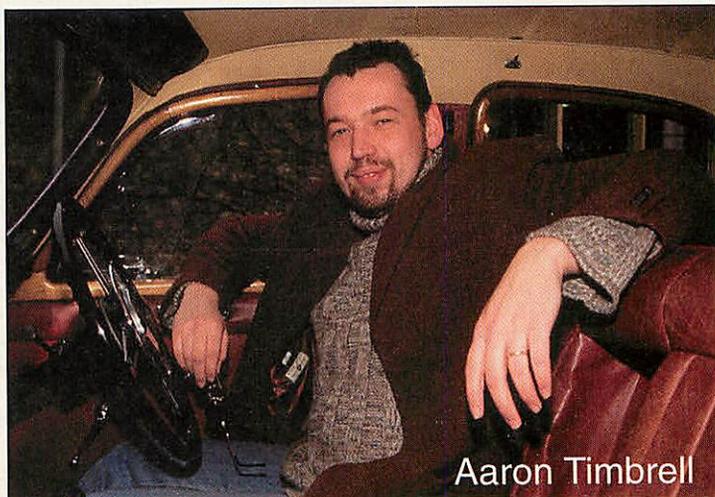
'We were originally doing very well because we could easily undercut Macs and PCs. The problem came around late 1993 when these two rival systems came crashing down in price. We just could not sell Acorns any more as Macs and PCs had 24-bit colour, so EFF had to give up on the Acorn systems.'

Once again out of a job, Aaron decided to try to sell his own programs, including *X-Stitch* which he had already written for his wife Hayley.

'I think what is wrong with a lot of companies is that they only start with one program which is a success but it is limited by the size of the Acorn market. When the orders start slowing, they are stumped. My idea was to have more than one product line in more than one area. I had a three-year plan for iSV: in the first we would make a loss, the second break even, the third make a profit. In fact we made a profit in the first year, and I'm now into the second; January was a good month and sales were up on last year'.

And the reason for making students design park benches? It's because public furniture is particularly hard to design. It needs to be to be functional, aesthetically pleasing and vandal-proof. Many people would say the same about software - perhaps Aaron's design training has some bearing on iSV's success.

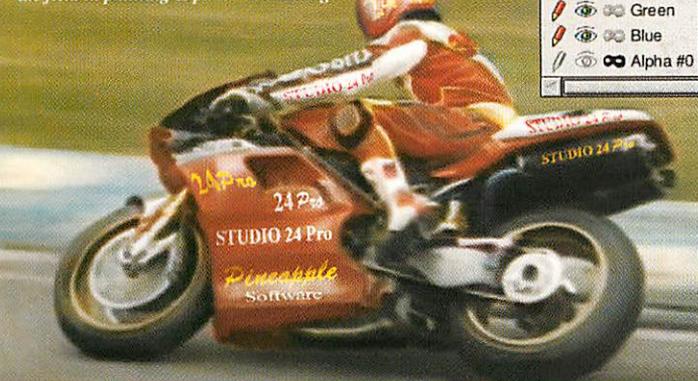
Jill Regan **AU**



Aaron Timbrell



Studio24 was hailed as one of the best 24 bit painting programs. A completely new program. Studio24Pro is now set to lead the field in painting & photo-retouching



Picture produced by Walter Briggs, Kingfisher Graphics using Studio24Pro

Parameters

Strength: 100 %

Distance: 20 pixels

Direction: -90 °

Channels...: 50 %

RGB, Red, Green, Blue, Alpha #0

Textures: HIGH, LOW, MUTATION RATE

Opacity: 100 %

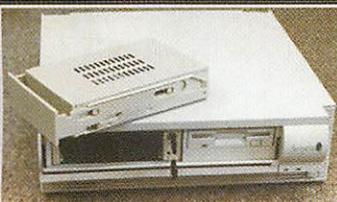
Buttons: Mutate texture, Mutate colour map, Cancel, Apply

- ### Features
- * Fast Virtual Memory
 - * Random mutated texture generation
 - * Undo brush, Texture and Filter brush
 - * Over 40 pre-defined filters including Spin blur, Motion blur, Lighting etc, etc.
 - * PhotoCD and Scanner input
 - * Merging of Sprites, Jpegs, Tiffs & Draw files.
 - * Built in Draw file creation
 - * RGB, CMYK or Indexed channel modes
 - * Up to 16, 8 bit mask channels
 - * Filter preview window (shown above left)

'Many Acorn User front covers have been created from scratch using this program alone, concrete proof of the power of this creative tool'. - *Acorn User March 96*

Studio24Pro

£149.87 inc vat



Removable Harddrive System

Total Data Security & Harddisc Backup

The removable harddrive system fits into a 5 1/4" drive slot in the RiscPC and harddrives are available in many sizes which can simply plug in and out of the slot as required. The drive may be locked in place to prevent unauthorized removal. For total security the drive may be removed and stored in a safe place to prevent unauthorized access to your data. Because the removable drives are available in any size (up to at least 4Gb) they are also ideal for use as backups for existing harddrives, and may be easily transported between different computers for rapid transfer of large datafiles. The system is available for use with both IDE and SCSI filing systems. External boxes are available to enable SCSI removable drives to be used with older Acorn models. Please phone for details. See opposite for prices.



PLC/3 £104.57

PAL TV Coders

The PLC/3 PAL TV Coder works in any of the 'Standard' Modes, e.g. mode12 and 15 on all Acorn computer models. The PLC/3 has a 15 pin RGB output for the monitor, a BNC for video and an S-VHS connector for S-Video. The PLC/3 will work with RiscPC computers although the AKF60, AKF85 and AKF90 will not work at the same time.



AVK/3 £355.00

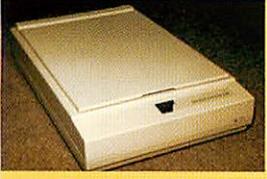
The AVK/3 will work with all computer models in all screen modes up to 800 x 600 resolution in 16 million colours. It has a remote control with facilities for zooming, freezing & panning the TV picture. Ideal for lectures and demonstrations etc. The AVK/3 includes all connecting cables including a SCART which gives TV frequency RGB O/P for large screen TV's, a phono socket for composite video and an S-VHS socket for S-Video.



ArtWorks Video Tutorial

A Brand new product from Pineapple is this VHS Video Tutorial covering the use of ArtWorks. Walter Briggs is the tutor for this 1 hour video which shows how to use all the ArtWorks tools and then goes on to show how Walter produced his famous Tiger head picture. Walter also draws an impressive landscape picture which can be copied by those with no artistic talent at all!

ArtWorks Video Tutorial £19.99



24 Bit Colour Scanners

Pineapple can offer a wide range of Flatbed A4 colour scanners starting from as low as £359 including software and vat! The Epson range is currently the most popular although Canon are expected to release a new scanner to replace their IX-4015 shortly. The cheapest in the Epson range is the GT5000 with an optical resolution of 300dpi. This is adequate for virtually all home use. The GT5000 is available with either a parallel or a SCSI interface. The GT8500 has an optical resolution of 400dpi and comes with both parallel and SCSI interfaces. Finally, the GT9000 is the top of the range with an optical resolution of 600dpi and both parallel and SCSI interfaces. Imagemaster and Twain software are included in the price, but we also offer our Studio24Pro Photo retouching software at just £80.00 inc vat with every scanner purchase.

20 : 20 Finance available on all RiscPC's
 Studio24Pro at just £49.00 with any RiscPC purchase
 Studio24Pro at just £80.00 with any colour scanner
 FREE membership of the Virus Protection Scheme with any RiscPC

Virus Protection

The Pineapple Virus Protection Scheme will allow you to detect and remove over 100 viruses from your Acorn computer.

'If you're interested in virus protection, join the pineapple virus protection scheme and buy Killer. Accept no alternatives.' - *Acorn User Feb 96*



Multimedia Speakers

Yamaha 10 Watt YST-M10 £63.00

A4 Colour Scanners

Primax Flatbed A4	£359
Epson GT5000 (parallel)	£425
Epson GT5000 (SCSI)	£499
Epson GT8500	£569
Epson GT9000	£699

All scanners include Imagemaster & Twain. Studio24Pro at just £80.00

A7000 Computers

4Mb HD425 14" Mon	£1019
4Mb HD425CD 14" Mon	£1139

RiscPC 600 Computers

4Mb HD425 14" Mon	£1325
4Mb HD425CD 14" Mon	£1450
4Mb HD425 17" Mon	£1699
4Mb HD425CD 17" Mon	£1825

RiscPC 700 Computers

5Mb HD425 14" Mon	£1550
5Mb HD425 17" Mon	£1925
5Mb HD425CD 14" Mon	£1699
5Mb HD425CD 17" Mon	£2049
10Mb HD850 14" Mon	£1949
10Mb HD850 17" Mon	£2299
10Mb HD850CD 14" Mon	£2069
10Mb HD850CD 17" Mon	£2425

PC Cards

SXL-33 Card	Separately £233.83	with RiscPC £116.32
DX2-66 Card	£289.00	£169.00
DX4-100 Card	£349.00	£229.00
586-100 Card	£579.00	£459.00

CDRom Drives

x4 Speed CDRom	£140.00
x6 Speed CDRom	£233.82

Memory Upgrades

1Mb to 2Mb Vram	£116.32
2Mb Vram	£233.83
4Mb SIMM Ram	£ 99.00
8Mb SIMM Ram	£199.00
16Mb SIMM Ram	£389.00
32Mb SIMM Ram	£775.00
RiscPC Sound Card	£70.44

All our prices INCLUDE 17.5% vat & delivery!

Printers



Citizen Printiva 600C

Citizen PRINTiva 600C	£399.00
Hewlett Packard Laserjet 5L 4ppm	£458.00
Deskjet 600	£231.00
Deskjet 660 colour	£315.00
Deskjet 850 colour	£415.00
Canon BJC600E colour	£375.00
BJC610 col 720dpi	£415.00
BJC4000 colour	£276.00
BJC4100 col 720dpi	£276.00
BJC200 mono	£205.00
BJC210 (col option)	£222.00
Epson Stylus Colour II	£329.00
Stylus Colour IIS	£244.00
Stylus Pro XL (A3)	£1079.00

3.5" Bare Harddrives

540Mb IDE	£149.00
850Mb IDE	£169.00
1.0Gb IDE	£225.75
1.0Gb SCSI	£235.00
2.0Gb SCSI	£659.00
4.0Gb SCSI	£938.00

Removable Harddrives

IDE Mounting Kit	£ 25.00
540Mb IDE	£168.00
850Mb IDE	£188.00
1.0Gb IDE	£244.00
SCSI Mounting Kit	£ 29.00
1.0Gb SCSI	£255.00
2.0Gb SCSI	£679.00
4.0Gb SCSI	£958.00
External Mounting Box	£ 89.00

SCSI Systems

SCSI Card	£116.32
SCSI Internal Cable	£ 9.99
SCSI External Cable	£ 19.99
SCSI II Card	£189.00
SCSI II Internal Cable	£ 9.99
SCSI II External Cable	£ 22.32

Monitors

14" 0.28mm DPMS	£179.00
14" 0.28mm MPRII	£189.00
15" 0.28mm MPRII	£309.00
17" 0.28mm MPRII	£556.00
21" 0.28mm MPRII	£1199.00
Illyama Visionmaster 17" 0.26mm MF8617E	£635.00
17" 0.25mm MF9017E	£699.00

!! Special RiscPC offer !!

A Quad speed CDRom drive for just £60 with any RiscPC

Pineapple Software

Suites 13 & 14
 South Park Business Centre
 310 Green Lane, Ilford
 Essex IG1 1XT

Tel 0181 599 1476 Fax 0181 598 2343
 email:- sales@pineapple.demon.co.uk

Terms:- All prices include 17.5% vat. Carriage FREE to mainland U.K. Phone for quote outside U.K. Official orders, cheques and all major credit cards accepted. Money back guarantee on all products.

'Pineapple offer some of the finest and friendliest after-sales support you will find' - *Acorn User Mar 96*

Why not come and visit us (easy parking) where you can see most of the Acorn range of computers and other hardware in action.

Monday - Friday 0900 - 1730



Let ANT software connect you ... across your networks

ANT

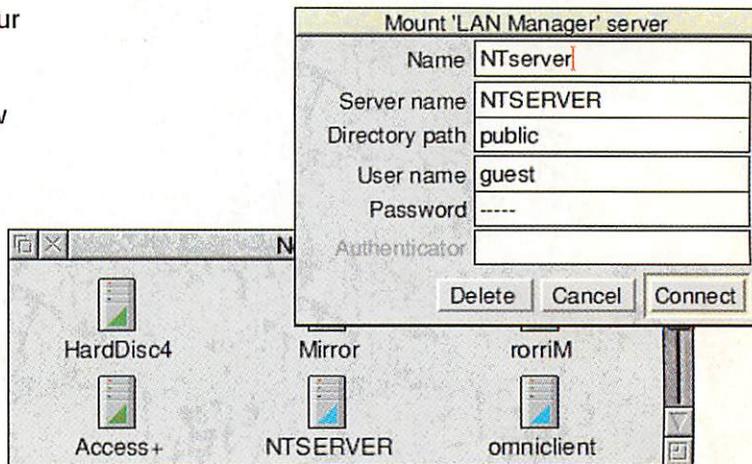


Net

YOU use your Acorn computer for most of your work. But at the next desk, or elsewhere on your local networks, are other types of computers, storing files you need to use. How can you easily get at these files?

ANT OmniClient® gives internetworking a friendly and familiar face. Log on to all kinds of servers, from Acorn Access to Windows for Workgroups, Windows NT, and AUN Level 4 and get files from standard Acorn filer windows. Use network printers through Acorn !Printers in the usual way.

Single-user copies of OmniClient are available only from ANT at £49 plus VAT. Site licences available from ANT and Acorn at £249 plus VAT.



... or all the way around the world



Internet

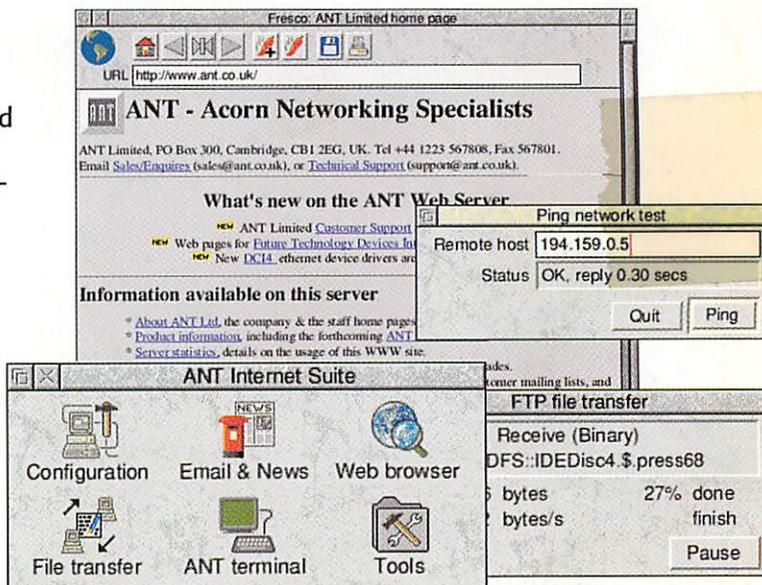
YOU'RE ready to connect to the information superhighway. But how do you start?

The ANT Internet Suite offers you an easy way to access the World Wide Web, read and participate in newsgroups, send and receive electronic mail, transfer files to and from computers around the world, and a host of other utilities to let you explore the world of the Internet.

The emphasis is on ease of use, with automatic setup for most UK service providers, drag and drop file transfer, and hotlist access from all components.

Suitable for use with commercial Internet service providers (using a 14.4k or faster modem) or with your own direct connection, the ANT Internet Suite is the easy way to access the electronic world.

The ANT Internet Suite is available now at £99 plus VAT for a single-user licence. Contact us to discuss site licence requirements.



Don't forget that ANT produces one of the widest ranges of Ethernet networking hardware for Acorn RISC computers. Our low-cost interfaces are installed at thousands of sites across the UK.

Cards are available to fit all Acorn RISC computers and are offered with a combination of connector types including 10Base2, 10BaseT, and 10Base5. Our distributor Atomwide and

our dealer network are able to offer advice on choosing the right cards and designing your network, and an installation service is available.

Contact Atomwide directly on 01689 814500 for more details.

ANT

For further information on all ANT products including price and availability, dealers, distributor and licensing information, please contact ANT Ltd using one of the following methods:

Phone: 01223 567808
Fax: 01223 567801
Post: ANT Ltd, PO Box 300, Cambridge CB1 2EG
Email: sales@ant.co.uk
WWW: http://www.ant.co.uk/