

CONTENTS

APPLICATION



CHARACTER CRUNCHING We take a general look at word processing and its application for home micros

261

HARDWARE



ORIC'S OFFSPRING The Atmos is the greatly enhanced successor to the Oric-1

269

SOFTWARE



WATER SPORT We review the exciting Scuba Dive game on three popular micros

275

KEY POSITIONS Continuing our series on file handling we discuss two methods of organising random access files

272

COMPUTER SCIENCE



MEMORY JOGGING We see how the microprocessor handles data transfer

266

JARGON



FROM CHAIN TO CHECK DIGIT A weekly glossary of computing terms

268

PROGRAMMING PROJECTS



ASSEMBLING THE CAST We define the sprites for our Subhunter game

264

NOW HEAR THIS A simple program that produces a challenging audio game

274

MACHINE CODE



REGISTERED ADDRESS This week we look at machine code instructions for addition and subtraction

276

PROFILE

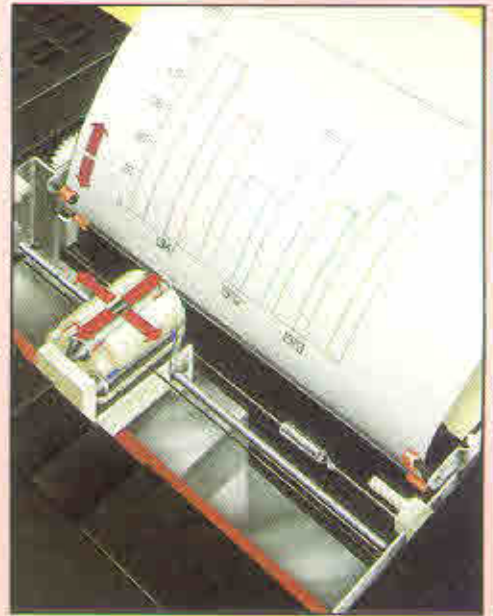


QUICK SELLERS Quicksilva is a dynamic British software company with a top-selling catalogue of games

280

Next Week

- We review a selection of low cost colour printer/plotters and explain their working principles.
- Our software classic is Quicksilva's intriguing Booga-boo cartoon game for the Commodore 64 and the Spectrum.
- We complete our graphics course for the Commodore 64. In future weeks we will set more projects for a selection of the popular micros.
- We look at the practicality of running a database on a home micro and warn against some of the common pitfalls.



QUIZ

- 1) What advantage do the Z80 registers have over the 6502?
- 2) What is the effect of simultaneously pressing the 'Z' and Function keys on the Oric Atmos?
- 3) How many points do you score for catching an electric eel in Scuba Dive?
- 4) In computer programs, user RAM is generally at a premium. Why, therefore, do we have to reduce the top of the Basic Text Area in the Subhunter program?

Answers To Last Week's Quiz

- A1)** Line 225 is forbidden to the programmer in BASICODE and CLS is replaced by the command GOSUB 100.
- A2)** Records are the same length to allow the operating system to position the read/write head in the correct place.
- A3)** The process is known as 'bit-mapping'.
- A4)** The fact that the machine runs on a Z80A microprocessor allows it to use software that runs under CP/M.

QUIZ

COVER PHOTOGRAPHY BY CHRIS STEVENS

Editor Jim Linnick, Art Director David Whelan, Technical Editor Brian Morris, Production Editor Catherine Cardwell, Picture Editor Claudia Zeff, Sub Editor Robert Pickering, Designer Julian Dorr, Art Assistant Liz Dixon, Editorial Assistant Stephen Malone, Contributors Steven Colwill, Max Phillips, David Janda, Richard Pawson, Group Art Director Perry Neville, Managing Director Stephen England, Published by Orbis Publishing Ltd, Editorial Director Brian Innes, Project Development Peter Brocksmith, Executive Editor Chris Cooper, Production Co-ordinator Ian Paton, Circulation Director David Bred, Marketing Director Michael Joyce, Designed and produced by Bunch Partworks Ltd, Editorial Office 85 Charlotte Street, London W1P 1LB; © APSIF Copenhagen 1984; © Orbis Publishing Ltd 1984; Typeset by Universe; Reproduction by Mullis Morgan Ltd; Printed in Great Britain by Artisan Press Ltd, Leicester

HOME COMPUTER ADVANCED COURSE - Price UK 80p IR £1.00 AUS \$1.95 NZ \$2.25 SA R1.95 SINGAPORE \$4.50 USA and CANADA \$1.95
How to obtain your copies of HOME COMPUTER ADVANCED COURSE - Copies are obtainable by placing a regular order at your newsagent, or by taking out a subscription. Subscription rates: for six months (26 issues) £23.50; for one year (52 issues) £47.50. Send your order and remittance to Punch Subscription Services, Watling Street, Bletchley, Milton Keynes, Bucks MK2 2BW, being sure to state the number of the first issue required.
Back Numbers UK and Eire - Back numbers are obtainable from your newsagent or from HOME COMPUTER ADVANCED COURSE. Back numbers, Orbis Publishing Limited, 20/22 Bedfordbury, LONDON WC2N 4BT at cover price.
AUSTRALIA: Back numbers are obtainable from HOME COMPUTER ADVANCED COURSE. Back numbers, Gordon & Gotch (Aus) Ltd, 114 William Street, PO Box 7676 Melbourne, Vic 3001. **SOUTH AFRICA, NEW ZEALAND, EUROPE & MALTA:** Back numbers are available at cover price from your newsagent. In case of difficulty write to the address in your country given for binders. South African readers should add sales tax.
How to obtain binders for HOME COMPUTER ADVANCED COURSE - UK and Eire: Please send £3.95 per binder if you do not wish to take advantage of our special offer detailed in Issues 5, 6 and 7. **EUROPE:** Write with remittance of £6.00 per binder (incl. p&p) payable to Orbis Publishing Limited, 20/22 Bedfordbury, LONDON WC2N 4BT. **MALTA:** Binders are obtainable through your local newsagent price £3.95. In case of difficulty write to HOME COMPUTER ADVANCED COURSE BINDERS, Miller (Malta) Ltd, M.A. Vassalli Street, Valletta, Malta. **AUSTRALIA:** For details of how to obtain your binders see inserts in early issues or write to HOME COMPUTER ADVANCED COURSE BINDERS, First Post Pty Ltd, 23 Chandos Street, St. Leonards, NSW 2065. The binders supplied are those illustrated in the magazine. **NEW ZEALAND:** Binders are available through your local newsagent or from HOME COMPUTER ADVANCED COURSE BINDERS, Gordon & Gotch (NZ) Ltd, PO Box 1595, Wellington. **SOUTH AFRICA:** Binders are available through any branch of Central Newsagency. In case of difficulty write to HOME COMPUTER ADVANCED COURSE BINDERS, Informag, PO Box 57394, Springfield 2137.
Note - Binders and back numbers are obtainable subject to availability of stocks. Whilst every attempt is made to keep the price of the issues and binders constant, the publishers reserve the right to increase the stated prices at any time when circumstances dictate. Binders depicted in this publication are those produced for the UK market only and may not necessarily be identical to binders produced for sale outside the UK. Binders and issues may be subject to import duty and/or local taxes, which are not included in the above prices unless stated.