

APPLICATION

CHESS ON CHIPS We look at how one of the most popular board games has been programmed for home micros

301

HARDWARE

GOING DOTTY The first of a short series that takes an in-depth look at dot matrix printers

304

WISH FULFILMENT The Colour Genie is an inexpensive machine for all the family

309

SOFTWARE

IN FORMATION Largely ignored by home micro owners, spreadsheets can be used for a variety of non-financial tasks

306

MINESHAFT MANIA We look at a program that has taken the charts by storm

313

JARGON

FROM COLD START TO COMPILER A weekly glossary of computing terms

308

PROGRAMMING PROJECTS

RIDDLE OF THE SANDS We present a program that poses a sticky problem

312

RUN SILENT, RUN DEEP Our Subhunter project has reached its target

314

MACHINE CODE

THE GREAT DIVIDE We briefly look at how division is programmed, before rounding off this introductory section

316

PROFILE

WELSH RARE BIT Dragon Data is one of the great success stories in the British microcomputing industry

320

Next Week

- We compare some of the more popular television monitors used with home micros.

- Our machine code course begins a new section with an article about programming high resolution graphics on the Commodore 64. In future weeks, we will look at the Assembly languages used by other processors, such as the 6809 at the heart of the Dragons.

- A home computer operating on its own has limitations. By linking into networks, however, a wealth of possibilities materialise.



QUIZ

- 1) Why do the printer speeds specified by the manufacturers seem faster than those experienced by the user?
- 2) When a human player uses "brute force" in a game of chess it probably means kicking over the board. What does it mean to a computer?
- 3) What are the call addresses of the print routines on the Commodore 64, BBC Micro and Spectrum?
- 4) What connection is planned between the Welsh Dragon and its far eastern cousins?

Answers To Last Week's Quiz

- A1) The variable H3 is set to zero and the bit that controls sprite three is reset to zero.
- A2) AS(0,0) contains the header record and the number of files held on the tape.
- A3) Because calculations are not performed on membership numbers.
- A4) The X-axis is restricted by the width of the paper, which limits the plotting range to 480 steps.

QUIZ

COVER PHOTOGRAPHY BY MARCUS WILSON-SMITH

Editor Jim Lennox; **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, Matt Nicholson, Sue Jansons, Mike Wesley, Geoff Nairn, Martin Hayman, Rose Deakin, Richard Pawson; **Group Art Director** Perry Neville; **Managing Director** Stephen England; **Published by** Orbis Publishing Ltd; **Editorial Director** Brian Innes; **Project Development** Peter Brooksmith; **Executive Editor** Chris Cooper; **Production Co-ordinator** Ian Paton; **Circulation Director** David Breed; **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) £23.80; for one year (52 issues) £47.60. 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, Gordon & Gotch (Aus) Ltd, 114 William Street, PO Box 767G 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 £5.00 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, 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, Interimg, 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.