

CONTENTS

APPLICATION

NEW MUSICAL EXPRESSIONS We look at the development of the sequencer **509**

HARDWARE

ONE STEP BEYOND How well does the Sinclair QL measure up to expectations? **501**

SOFTWARE

BLACK MAGIC Necromancer is a game demanding skill and fast reactions **517**

COMPUTER SCIENCE

ADVANCE TO LOGO The start of a new language series **506**

JARGON

EAPROM TO ELECTROSENSITIVE A weekly glossary of computing terms **508**

PROGRAMMING PROJECTS

SWINGTIME A program to play Hangman **504**

PROGRAMMING TECHNIQUES

THE HUMAN FACTOR We look at the importance of user-friendly program design **512**

MACHINE CODE

HIGHLY PROCESSED CODE The first in a new course for Dragon and Tandy owners **518**

PROFILE

NEW HORIZONS Psion are a versatile and forward-looking team **520**

WORKSHOP

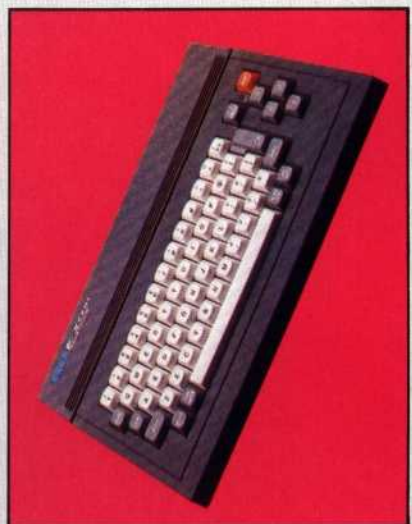
HOT WIRED We relaunch our practical series with a new project **514**

Next Week

● We review the SEGA SC 3000, a colourful new Japanese computer with a wealth of manufacturer's software.

● Having made up the user port lead, we begin to build the BBC Micro/Commodore 64 universal interface.

● Ergonomics in design engineering has gradually changed the look and functions of offices, houses and factories: we examine its impact on computers.



QUIZ

- 1) What is the infamous 'kludge'?
- 2) What does IDC stand for?
- 3) What is the advantage of digitising a sound, such as a drumbeat?
- 4) What is an emulator?

Answers To Last Week's Quiz

A1) Fillsub's parameters are the start-point co-ordinates, and the minimum and maximum X co-ordinates.

A2) MUSIC Simulator Interpreter for COMpositional Procedures was designed by Lejaren Hiller to aid musical composition on computers.

A3) The central character of Lords of Midnight is Luxor the Moonprince, Lord of the Free.

A4) The programming technique, 'firewalling', is the process of checking parameters as they pass between routines.

QUIZ

CLUBSPOT A guide to the micro user's **INSIDE**
Prestel pages **BACK COVER**

Editor Jim Lennox; Managing Editor Mike Wesley; Art Director David Whelan; Technical Editor Brian Morris; Production Editor Catherine Cardwell; Art Editor Claudia Zeff; Chief Sub Editor Robert Pickering; Designer Julian Dorr; Art Assistant Liz Dixon; Editorial Assistant Stephen Malone; Sub Editor Steve Mann; Researcher Melanie Davis; Contributors Andrew Stark, Geoff Bains, Harvey Mellor, Martin Wheatcroft, Mike Curtis, Steve Colwill, Steve Malone, Rory Forsyth, Jim Lennox, Richard Pawson, Graham Storrs; Group Art Director Perry Neville; Managing Director Stephen England; Published by Orbis Publishing Ltd; Editorial Director Brian Innes; Project Development Peter Brookesmith; Executive Editor Chris Cooper; Production Controller Peter Taylor-Medhurst; Circulation Director David Breed; Marketing Director Michael Joyce; Designed and produced by Bunch Partworks Ltd; Editorial Office 14 Rathbone Place, London W1P 1DE; © 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, 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 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, 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, 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.