Education

Graphics

Games

Languages

Business and Home

Books

Spectacular programs for the BBC Microcomputer from Acornsoft

Autumn 1983

Acornsoft Introduction

Acornsoft's spectacular programs open your eyes to the exciting world of personal computing. Specially designed program packs covering games, educational and home and business applications are available for your BBC Micro. You can teach yourself to program. Do your own accounting. Run your home life more efficiently. Design your garden. Play an active part in your children's education. And generally increase the pleasure you get from your computer. If games are your passion, Acornsoft offers a variety of scintillating games for all the 'children' in your family.

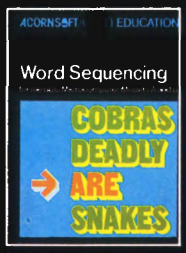
By looking at our special symbols, you can tell in what form the programs are available:

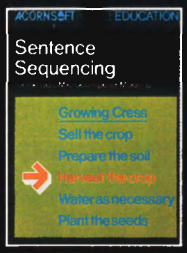
- on cassette
- on disc
- via plug-in Read Only Memory (ROM) which can be specially fitted by your dealer*
- Ⓐ suitable for Model A
- Ⓑ suitable for Model B
- indicates you can use joysticks

*To use ROM software, your computer should be fitted with the 1.0 Machine Operating System, or later versions. This will be supplied free of charge if required.

Acornsoft Education

The Acornsoft educational range includes specially developed programs for children of primary school and secondary school age, based on sound educational techniques. Putting the emphasis on making learning more entertaining, each program has been researched and developed in conjunction with specialist teachers.





The following group of five programs have been developed in conjunction with ESMTE (Educational Software for Microcomputers) and offer a range of exercises for younger students of English language and elementary mathematics.

Word Sequencing

Age range 5-8 years

This series of programs presents exercises which help young students develop an awareness of sentence structure. In each program the student is asked to put words in the correct order to make up whole sentences or phrases.

In each program a series of jumbled words must be arranged to form either a proverb, nursery rhyme title or a sensible sentence. Words are first located and selected using the cursor keys, and can then be moved to the correct position.

Word Hunt

For all age groups

Word Hunt will provide teachers with an endless source of instructive-but-fun teaching material. Each Word Hunt program contains a list of nine words. Select one word from each group, and then to try to create as many smaller words as possible from the selected word.

WORD HUNT 1 — words included are Abroad, Arctic, Earth, Europe, Foreign, Ocean, Orbit, Travel, Water.

WORD HUNT 2 — words included are Flower, Forest, Great, Hexagon, Island, Plough, Primary, Think, Weight.

WORD HUNT 3 — words included are Delight, Direct, Gifted, Heather, Holiday, Insect, Machine, Magnify, Teapot.

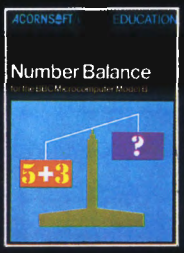
WORD HUNT 4 — words included are Careful, Castle, Fertile, Foreman, Fragile, General, Glacier, Harvest, Orange.

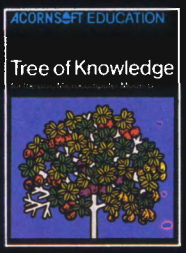
Sentence Sequencing

Age range 7-9 years

This pack consists of two programs designed to test the student's ability to order material in a logical sequence.

Each program presents a series of jumbled sentences which must be re-arranged to form a nursery rhyme or a logical sequence of sentences. Sentences to be moved are first located and selected using the cursor up and cursor down keys, and the sentences are then moved to the correct position.





Number Balance

Ⓑ

Age range 6-8 years

The two programs in this pack give practice in simple mathematical operations for numbers 1 to 20. The object of the exercise is to make a balance level by inputting the correct missing number into one side of a simple equation. Incorrect answers will tilt the balance in the appropriate direction, after three incorrect attempts the program responds with the correct answer.

Missing Signs

Ⓐ Ⓑ

Age range 9-10 years

These three programs will serve as an introduction to simple equations, providing practice in addition, subtraction, multiplication and division.

PUT IN THE SIGNS presents the pupil with incomplete sums into which he or she must insert the sign which will make the calculation correct. If two incorrect attempts are made, the program provides the correct answer.

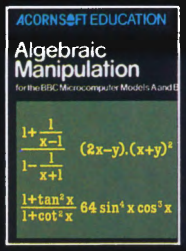
The two MISSING SIGNS programs present equations which have the balancing sign missing. The child must calculate both sides of the equation and decide whether the missing sign is greater than (ie >) or less than (ie <) or equal to (ie =). The equations contain one and two digit numbers.

Tree of Knowledge

Ⓑ

For all age groups

Tree of Knowledge is an interactive program teaching categorisation. It illustrates some of the more practical aspects of computing in that the pupil first educates the computer, building up a database or 'expert' system by answering the computer's questions, and the database is then used to play games of deduction and logic. Databases can be saved and loaded from within the program, and two sample databases are supplied with the pack.



Algebraic Manipulation

Ⓐ Ⓑ

Age range 14-15 years

This set of four programs will perform a wide range of algebraic manipulations and is intended for use in mathematics teaching or research.

POLYNOM can expand, simplify, differentiate or integrate a polynomial expression into the equivalent polynomial.

RATIONAL can expand and simplify an expression of rational terms into the equivalent ratio of two polynomials, reduced to lowest terms.

TRIGONOM can expand, simplify, differentiate or integrate a trigonometric expression including ratios of trigonometric terms, into the equivalent standard form.

FOURIER can perform trigonometric transformations into a linear combination of sines and cosines of integer multiples of X.

Peeko-Computer

Ⓐ Ⓑ

For all age groups

Peeko-Computer simulates the operation of a simplified microcomputer in order to teach the fundamentals of machine-code programming. The Peeko-Computer has ten easily-learned instructions, and the display gives a visual analogy of the operation of a real microcomputer. Programs can be entered, single-stepped or run, with the memory and register contents being displayed at every step. To aid comprehension each instruction mnemonic is displayed as it is encountered.

Peeko-Computer comes complete with a 16-page instruction manual including exercises and examples, and includes five demonstration Peeko-Computer programs.

Jars

Ⓑ

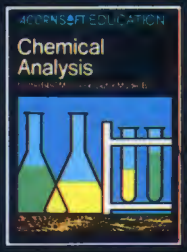
Age range 7-13 years

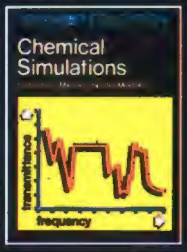
It is widely recognised by educationalists that practice with estimation gives a child a feel for mathematical principles, and Jars aims to present what are usually thought of as purely numerical problems in a visual way.

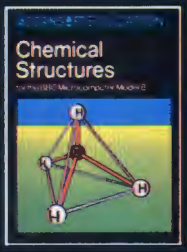
The program is in two parts, the first of which gives practice in estimating the volumes of liquids in jars. The child is asked to estimate the volume as a simple fraction, and is then asked to estimate the volume in absolute terms and also to work out how much more liquid is needed to fill the jar.

The second part of the program is an exercise in simple arithmetic. Using the computer keys, two jars can be filled or emptied and liquid poured from one to the other until one of the jars contains an amount specified by the computer. Problems are divided into two levels of difficulty.

Exercises can be arranged by teacher or parent to give a progression of problems in order of difficulty. Success, partial success or failure is noted by a scoring system and suitable comments. Sound effects can be switched off if not required.







Chemical Analysis

BBC B

Age range 15-18 years

These three programs are designed to provide practice in identifying chemical elements, inorganic compounds, and organic groups.

The programs come complete with a booklet containing instructions, and explanatory notes for each program.

ELEMENTS presents a series of mystery elements which the student is asked to identify by performing tests selected from a menu.

INORGANIC presents a series of inorganic substances which the student can identify by performing tests selected from a menu of standard tests.

ORGANIC deals with organic compounds. By selecting standard tests from a menu the student can discover which functional group is present.

Chemical Simulations

BBC B

Age range 15-18 years

These three programs present simulations of standard experiments in A-level chemistry.

The programs come complete with a booklet containing instructions, and explanatory notes for each program.

IR provides an introduction to infra-red spectroscopy by presenting the spectra of some very simple organic compounds. The student works out the number of atoms of each element contained in one molecule of compound.

PH is a four-part simulation of the titration of acids against bases. Part 1 gives a basic review together with a graph plotting facility. Part 2 is a test on elementary theory and Part 3 is a test on the mathematical theory on pH curves. Part 4 sets graded random problems with model answers.

ORGANAL is a simulation of an organic functional group analysis. By doing tests with selected reagents, the student can identify the compound. Functional group reactions are summarised in the Basic Review.

Chemical Structures

BBC B

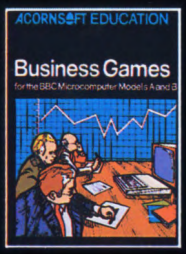
Age range 15-18 years

These two programs encourage the student to learn about the formation of chemical compounds. A representation of bonding type, or 3-D structures of molecules are drawn on the screen in response to the student's choice of elements.

The programs come complete with a booklet containing instructions, and explanatory notes for each program.

In BONDING the student chooses two elements from the first 18 elements in the periodic table, one of which must be a non-metal. The computer decides whether the simplest compound formed by the two chosen elements is ionic or covalent and then proceeds to draw the structure showing the outer shells of electrons.

SHAPE explores the three-dimensional structures of molecules. As with BONDING, the computer draws the molecular structure of the compound formed by the two elements chosen by the student.



Business Games

Ⓐ Ⓑ

Age range 12-18 years

Two business games designed for economics, business or general studies teaching.

In STOKMARK one to eight players compete in buying and selling shares. The first to turn his or her initial capital of £1200 into £5000 is the winner. The screen displays information about shares such as you would find in the City pages of newspapers: prices, dividends, yields and price earnings ratios.

TELEMARK is a business game based upon making and selling televisions, the objective being to make the largest total profit or to win more than half the total market for televisions.

By playing STOKMARK and TELEMARK the participants learn the significance of financial terms such as purchase or sale of shares, dividends, yield, price to earnings ratio, overheads and depreciation.

Acornsoft Languages

Acornsoft languages extend the power of your BBC Micro, allowing you to take advantage of software in other languages or giving you greater speed and flexibility. The languages are ideal for applications such as artificial intelligence, graphics, and system development. Each Acornsoft language comprises extensions to take advantage of the special features of your BBC Micro. Programming books which support the Acornsoft languages explain the special applications.

FORTH

B

Acornsoft FORTH is a complete implementation of the FORTH language to the 1979 standard specification for the BBC Microcomputer Model B. FORTH is a compiled language so programs run very fast (typically five times faster than BASIC).

The cassette or disc includes a FORTH dictionary and compiler, a tape interface/screen editor, a macro-assembler, and a high-resolution graphics demonstration.

In addition to a comprehensive set of arithmetic and stack operators, control transfer words, and defining words, Acornsoft FORTH includes full graphics commands and the more advanced features for defining the actions of defining words themselves. This opens the door to 'meta-FORTH' and user-defined FORTH-based languages.

LISP

A B

LISP is the fundamental language of artificial intelligence research and offers more flexibility in data and control structures than traditional languages. Acornsoft LISP includes 5.5K of machine code interpreter, plus 3K of initialised LISP workspace containing utilities and constants.

The system contains a number of extensions to basic LISP, including PEEK, POKE, CALL, and VDU, LOOP, WHILE and UNTIL functions, and disc input/output control functions.

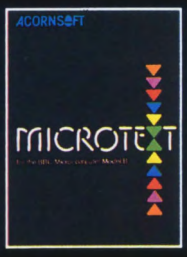
BCPL

B

BCPL is one of the most flexible of modern structured languages and is easy to learn. BCPL is particularly good at handling input and output, and is thus often used to write utility programs. It is also used to develop games programs and commercial packages, to develop system software such as screen editors, to write control systems, and to produce programs which would otherwise need to be written in assembler.

The Acornsoft BCPL system consists of the BCPL language ROM and a 40/80 track disc containing the BCPL compiler, a screen editor, a 6502 assembler, other utilities and program development aids, and some examples of BCPL code. A comprehensive 450-page User Guide is included in the package.

The BCPL language ROM can be used with either a disc or an Econet filing system, and automatically takes advantage of the second 6502 processor if fitted, claiming all available memory.



S-Pascal

A compiler for the subset of Pascal devised for teaching by Nicholas Wirth, the inventor of Pascal.

The Acornsoft implementation supports integer, character and boolean types, as well as multi-dimensional arrays. Like the full Pascal implementation it is block-structured and completely recursive. Error messages are comprehensive, aiding in teaching and debugging. It is aimed at the educational user, particularly as an introduction to structured programming languages, where the power of the full Pascal implementation is not required. Since S-Pascal compiles to 6502 machine code it is also eminently suitable for writing small fast utilities. A comprehensive User Guide is included in the pack. (The User Guide is also available separately.)

Microtext

Developed by the National Physical Laboratory.

Microtext is a programming package designed to simplify the production of a wide range of man–computer dialogues. Using Microtext's simple commands the user can draw up any number of 'frames', each containing text and/or graphics. A series of frames builds up to a complete module, whose maximum size depends on available memory. Each Microtext program can consist of more than one module, and its size is therefore limited only by the capacity of the cassette or disc.

Using Microtext, experts in any field can construct their own complete courses of computer-based instructional material. Applications include interviewing systems, teaching packages, training courses and interactive demonstrations and simulations.

The pack contains the Microtext authoring system plus a comprehensive User Guide. Also included are a series of demonstration programs and an easy-reference summary card of all Microtext facilities and commands.

6502 Development System

This package, for use with a 6502 second processor, is intended for the serious programmer developing large programs in assembly language. The system comprises five programs:

MASM — a 6502 macro-assembler. A full range of macro facilities are provided, including looping, recursive calls and conditional assembly.

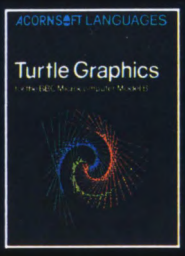
XREF — a cross-referencer to be used in conjunction with MASM.

ViewEdit — a full screen editor based on the VIEW word processor.

TRACE — a 6502 trace package for debugging all types of program.

PRINT — a program to produce formatted assembly listings without using MASM.

The package is provided with a 250-page manual describing all the facilities provided by the system.



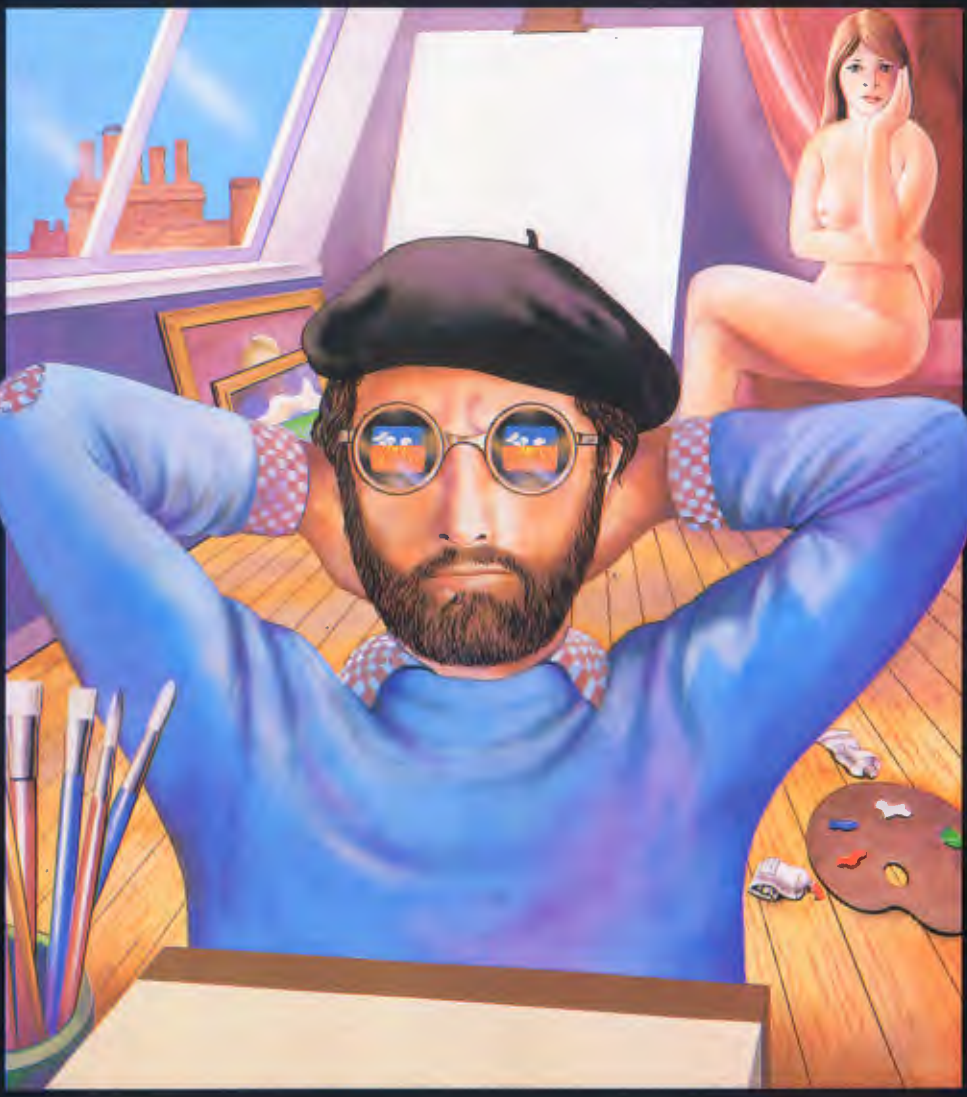
Turtle Graphics

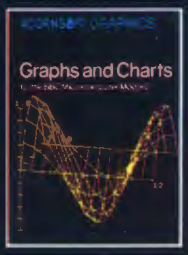
Turtle Graphics is designed as an introductory package for teaching geometry, mathematics and graphics at an elementary level.

The interpreter supports a subset of the full LOGO implementation featuring only the simpler turtle graphics facilities. The facilities provided are powerful enough to allow development of fairly complex programs, and include multiple parameter procedures, looping primitives, elementary and transcendental functions and keyword abbreviation. A user manual is included in the pack.

Acornsoft Graphics

Acornsoft graphics programs are designed to bring out the artist in you. Powerful graphics software makes maximum use of the 16 colours and superb high resolution graphics facilities on your BBC Micro. Ingenious programs draw animated pictures. You can construct intricate charts, graphs and diagrams or create your own masterpieces in dazzling colour.





Picture Maker

B

Picture Maker is a complete graphics system for preparing, on the screen, diagrams, designs, or simply pictures. Applications include the design of transparencies or overhead projector slides, thus offering scope for the professional as well as the budding artist.

Each picture is built out of units which the user defines, and which may be used repeatedly to construct more complex units with optional rescaling, rotation, or colour change. Text of any size and orientation may also be used.

Basic drawing functions include lines, solid triangles, arcs, circular sectors and shape filling. There is an automatic 'cursor home' position memory and an editing feature. Actual and logical colours can be changed easily, and pictures can be drawn in one screen mode and then replayed in another.

Pictures may be saved on disc or cassette.

Graphs and Charts

B

These programs produce a set of graphics routines which can be incorporated into programs to present data graphically in a wide range of applications. The graphs include automatic scaling, labelling of axes, and use of colours. Routines are included to draw two-dimensional graphs, three-dimensional graphs, stereo pairs, two-dimensional contour maps, three-dimensional contour maps, bar charts and pie charts.

Complete listings and detailed explanations of the programs are given in the book *Graphs and Charts on the* BBC *Microcomputer*; although sold separately we recommend the use of the book with this pack.

Creative Graphics

A B

36 programs producing a spectacular range of pictures and patterns in full colour, including animated pictures, recursively-defined curves, and rotating three-dimensional shapes. A full discussion of the techniques and principles involved plus program listings are given in the book *Creative Graphics on the* BBC *Microcomputer*, available separately.

Autumn 1983

Acornsoft Order form

Acornsoft software for the BBC Microcomputer.
The symbols tell you in what form the programs are available.
cassette disc ROM Ⓐ Ⓑ indicates suitability for Model A or B
indicates you can use joysticks

		Stock code	Price £	Price inc VAT £	Qty	Total
Education						
Word Sequencing	Ⓐ Ⓑ	SBE06	10.35	11.90		
	Ⓑ	SNE06	13.35	15.35		
Word Hunt	Ⓐ Ⓑ	SBE05	10.35	11.90		
	Ⓑ	SNE05	13.35	15.35		
Sentence Sequencing	Ⓑ	SBE07	10.35	11.90		
	Ⓑ	SNE07	13.35	15.35		
Number Balance	Ⓑ	SBE08	10.35	11.90		
	Ⓑ	SNE08	13.35	15.35		
Missing Signs	Ⓐ Ⓑ	SBE09	10.35	11.90		
	Ⓑ	SNE09	13.35	15.35		
Business Games	Ⓐ Ⓑ	SBE03	8.65	9.95		
Tree of Knowledge	Ⓑ	SBE04	8.65	9.95		
	Ⓑ	SNE04	10.00	11.50		
Algebraic Manipulation	Ⓐ Ⓑ	SBE01	8.65	9.95		
Peeko-Computer	Ⓐ Ⓑ	SBE02	8.65	9.95		
	Ⓑ	SNE02	10.00	11.50		
Jars	Ⓑ	SBE15	10.35	11.90		
	Ⓑ	SNE15	13.35	15.35		
Chemical Analysis	Ⓑ	SBE12	12.00	13.80		
	Ⓑ	SNE12	15.00	17.25		
Chemical Simulations	Ⓑ	SBE13	12.00	13.80		
	Ⓑ	SNE13	15.00	17.25		
Chemical Structures	Ⓑ	SBE14	12.00	13.80		
	Ⓑ	SNE14	15.00	17.25		
					Total	

Acornsoft software for the BBC Microcomputer **Order form**

	Stock code	Price £	Price inc VAT £	Qty	Total
Languages					
FORTH	💾 Ⓑ SBL01	14.65	16.85		
	📟 Ⓑ SNL01	17.30	19.90		
LISP	💾 Ⓐ Ⓑ SBL02	14.65	16.85		
	📟 Ⓑ SNL02	17.30	19.90		
BCPL (ROM, disc, manual)	🔌 Ⓑ SNL03	86.65	99.65		
S-Pascal *Ready 4th quarter 1983*	💾 Ⓑ SBL08	14.65	16.85		
	📟 Ⓑ SNL08	17.30	19.90		
Microtext *Ready 4th quarter 1983*	💾 Ⓑ SBL04	43.35	49.85		
	📟 Ⓑ SNL04	52.00	59.80		
6502 Development System *Ready 4th quarter 1983*	📟 Ⓑ SNL05	43.35	49.85		
Turtle Graphics *Ready 3rd quarter 1983*	💾 Ⓑ SBL07	14.65	16.85		
	📟 Ⓑ SNL07	17.30	19.90		
Graphics					
Picture Maker *Ready 3rd quarter 1983*	💾 Ⓑ SBX03	8.65	9.95		
Graphs and Charts	💾 Ⓑ SBX02	8.65	9.95		
Creative Graphics	💾 Ⓐ Ⓑ SBX01	8.65	9.95		
Business and Home					
*VIEW (including manuals)	🔌 Ⓑ SBB03	52.00	59.80		
VIEW Printer Drivers	💾 Ⓑ SBB04	8.65	9.95		
*ViewSheet *Ready 1st quarter 1984*	🔌 Ⓑ SBB07	52.00	59.80		
Database *Ready 3rd quarter 1983*	💾 Ⓑ SBB06	10.35	11.90		
	📟 Ⓑ SNB06	13.35	15.35		
Desk Diary	💾 Ⓐ Ⓑ SBB01	8.65	9.95		
Forecast	💾 Ⓑ SBB02	10.35	11.90		
Personal Money Management	💾 Ⓑ SBB05	10.35	11.90		
Shirley Conran's Magic Garden	💾 Ⓑ SBX04	8.65	9.95		
	📟 Ⓑ SNX04	10.00	11.50		
				Total	

Acornsoft software for the BBC Microcomputer **Order form**

	Stock code	Price £	Price inc VAT £	Qty	Total
Games					
Philosopher's Quest	💾 Ⓑ SBG01	8.65	9.95		
	📼 Ⓑ SNG01	10.00	11.50		
Countdown to Doom	💾 Ⓑ SBG19	8.65	9.95		
	📼 Ⓑ SNG19	10.00	11.50		
Castle of Riddles	💾 Ⓑ SBG17	8.65	9.95		
Kingdom of Hamil *Ready 3rd quarter 1983*	💾 Ⓑ SBG25	8.65	9.95		
Sphinx Adventure	💾 Ⓑ SBG07	8.65	9.95		
	📼 Ⓑ SNG07	10.00	11.50		
Monsters	💾 Ⓑ SBG03	8.65	9.95		
	📼 Ⓑ SNG03	10.00	11.50		
Snapper	💾 Ⓑ SBG04	8.65	9.95		
	📼 Ⓑ SNG04	10.00	11.50		
Planetoid	💾 Ⓑ SBG15	8.65	9.95		
	📼 Ⓑ SNG15	10.00	11.50		
Arcade Action	💾 Ⓐ Ⓑ SBG06	10.35	11.90		
Rocket Raid	💾 Ⓑ SBG05	8.65	9.95		
	📼 Ⓑ SNG05	10.00	11.50		
Meteors	💾 Ⓑ SBG13	8.65	9.95		
	📼 Ⓑ SNG13	10.00	11.50		
Arcadians	💾 Ⓑ SBG14	8.65	9.95		
	📼 Ⓑ SNG14	10.00	11.50		
Sliding-Block Puzzles	💾 Ⓑ SBG12	8.65	9.95		
Snooker	💾 Ⓑ SBG21	8.65	9.95		
	📼 Ⓑ SNG21	10.00	11.50		
Draughts and Reversi	💾 Ⓐ Ⓑ SBG20	8.65	9.95		
Cube Master	💾 Ⓑ SBG08	8.65	9.95		
Hopper	💾 Ⓑ SBG23	8.65	9.95		
	📼 Ⓑ SNG23	10.00	11.50		
Missile Base	💾 Ⓑ SBG18	8.65	9.95		
	📼 Ⓑ SNG18	10.00	11.50		
				Total	

Acornsoft software for the BBC Microcomputer **Order form**

		Stock code	Price £	Price inc VAT £	Qty	Total
Starship Command	🖭 Ⓑ 🖫	SBG22	8.65	9.95		
	🖸 Ⓑ 🖫	SNG22	10.00	11.50		
JCB Digger *Ready 3rd quarter 1983*	🖭 Ⓑ 🖫	SBG09	8.65	9.95		
	🖸 Ⓑ 🖫	SNG09	10.00	11.50		
Carousel *Ready 3rd quarter 1983*	🖭 Ⓑ	SBG24	8.65	9.95		
Chess	🖭 Ⓑ 🖫	SBG10	8.65	9.95		
Super Invaders	🖭 Ⓑ 🖫	SBG16	8.65	9.95		
	🖸 Ⓑ 🖫	SNG16	10.00	11.50		
Books						
View Guide		SBD07	2.50	2.50		
Into View		SBD08	2.50	2.50		
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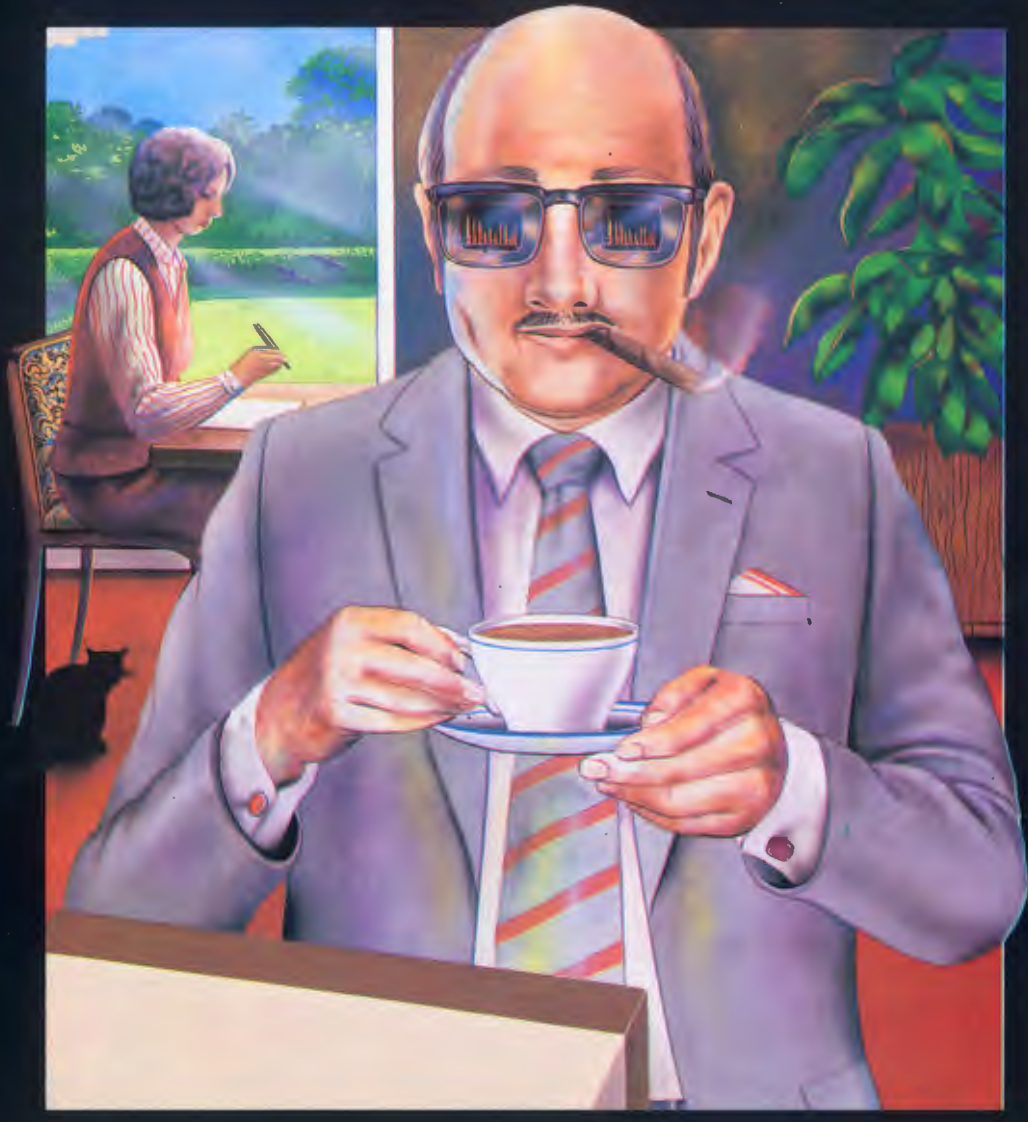
Acornsoft Business and Home

Acornsoft business and home programs allow you to plan to spend your time more profitably and enjoyably. You can take the backache out of organising your garden. Take the worry out of managing money matters. Arrange your business and social diary. Get on top of routine financial administration and business projections. And make good use of our professional text processing system, made so simple that everyone can use it.



VIEW

VIEW offers all the facilities of a professional word processor. Important features include the choice between 40 or 80 column modes, insert or over-type editing modes, the flexible search and replace commands, automatic page numbering, and global or selective formatting. VIEW supports bold or underlined type, microspacing, and has a facility for editing files larger than the text area would normally allow.

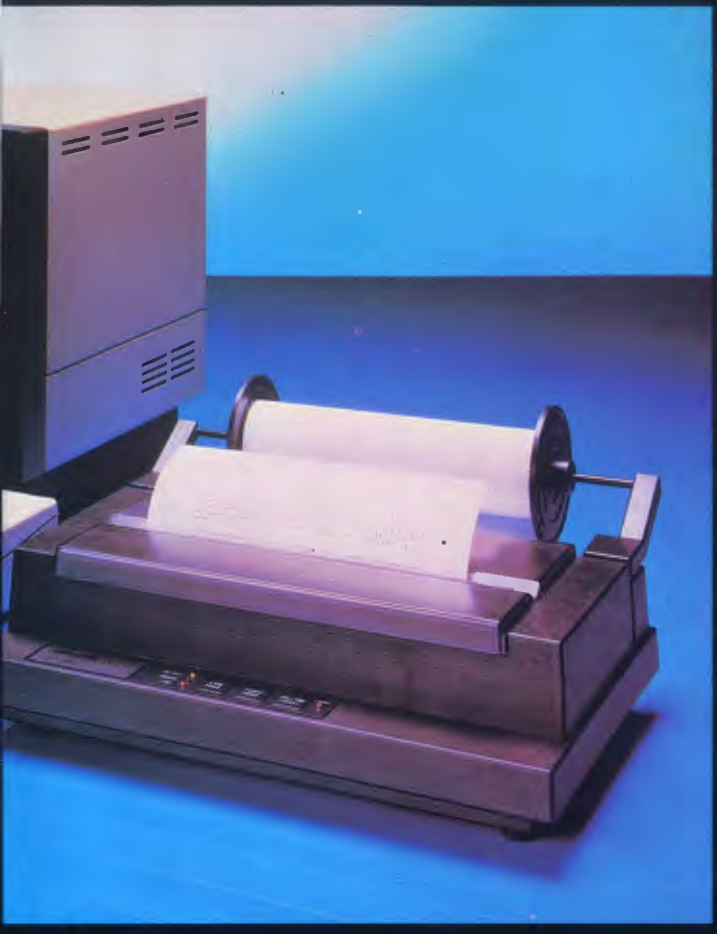
VIEW has been designed for the convenience of businesses and individuals alike. For the less experienced user, VIEW is straightforward and easy to use; no prior knowledge of word processing is necessary, and the accompanying manuals assume only that the user is familiar with the operation of a typewriter.

The VIEW package consists of a 16K ROM, the teaching manual INTO VIEW, and the reference manual, VIEW GUIDE.

Printer
You can use any printer that is compatible with the BBC Microcomputer to print out from VIEW.

Some printers offer special facilities such as bold or underline; to use these facilities you will need a 'printer driver' program. See VIEW Printer Drivers.

Installation
We recommend that your local dealer should install the VIEW ROM in your computer. However, ROM-fitting instructions are included in the pack.



VIEW Printer Drivers

There are five printer drivers on cassette designed to make facilities such as bold and underline available through VIEW. The drivers are for the following printers:

Diablo and Qume, Ricoh 1600S and NEC Spinwriter, Olivetti JP101, Epson MX80 (Mark III), Facit 8105 and 8000 typewriters.

Although supplied on cassette, full instructions are provided for making a disc copy of the required printer driver.

ViewSheet

ViewSheet is an electronic worksheet, the numerical equivalent to a word processor on your BBC Microcomputer. The ViewSheet is 255 columns wide and 255 rows deep/long, the display showing small sections of the sheet at a time.

Figures and formulae can be typed on to the sheet, and in whatever format you please. Values can be formatted in pounds and pence, ranged right or left, and with up to nine decimal places.

ViewSheet distinguishes between values, labels (usually headings), and formulae. A formula can relate to any other sheet position such that if you change any value, all other values depending on it will also change.

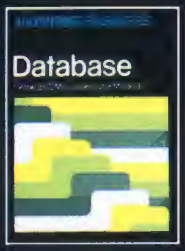
Sections of the sheet, described as 'windows', can be printed out, or moved from one part of the sheet to another.

The ViewSheet can be used with any printer that works with the BBC Microcomputer, and can also be used with any of the printer drivers in the VIEW Printer Driver package to give bold and underlined printing.

ViewSheet files can also be converted into VIEW files, and data may be transferred between BASIC (and other languages) and ViewSheet.

Operations supported by ViewSheet are: addition, subtraction, multiplication, division, exponentiation and bracketed operations.

Functions supported are: ABS, ACS, ASN, SIN, SGN, RAD, ATN, COS, DEG, EXP, INT, LN, LOG, PI, SQR, TAN, MIN, AVERAGE, MAX, SUM, CHOOSE, LOOKUP.



Database

An easy-to-use database system which displays records in filing-card format.

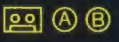
The database has a capacity for up to 800 records per file, allowing 240 characters per field and 32 fields per record.

Alphabetical or numerical sorting can be performed on up to 32 fields, and a comprehensive search facility is included which allows an arbitrary number of fields to be searched either numerically or by pattern matching. The facility to search the subset produced is also included.

The program also caters for statistical analysis: the mean and standard deviation of any numerical fields in the total file or a subset can be obtained.

Separate programs are included which allow you to change the format of records and to convert files into VIEW format.

Desk Diary



This pack consists of two programs plus instructions for an address book and diary/planner on the BBC Microcomputer Models A and B.

ADDRESS BOOK can hold a file of several hundred names, addresses, and telephone numbers which can be retrieved by name, or by matching with other information specified in the entry. Applications include mailing lists, and customer records.

PLANNER works just like a written diary but with a real-time alarm and many automatic features. There is space for 300 entries, which may be of three kinds: appointments at a specified time of day; regular events, such as birthdays and bill payments which automatically get carried forward; and exclusive entries, for trips and holidays, which prevent appointments from being made over a specified period.

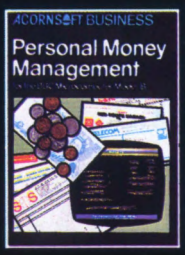
Forecast

These programs can be used at home or in the office to predict the likely outcome of any intended financial project.

FORECAST provides you with instant financial predictions which allow you to make informed decisions at a moment's notice. The program calculates trends by applying sophisticated statistical techniques to the data you supply. The results can be printed out for circulation.

CAPITAL allows you to evaluate an investment proposal by calculating its likely returns; these are based on assumptions which you can vary as you please. You are given a swift and automatic analysis of the current value of such proposals, where the costs arise in the present and the profits accrue in the future.

An instruction booklet is included in the pack.



Personal Money Management

Cassette (B)

Personal Money Management is designed to help you control your personal finances more effectively.

Entries can be recorded in up to nine expense categories. Headings are provided, but can be changed to headings of your choice. The program allows you to set budgets for each category and to compare your projections against actual expenditure.

With the information you record in these categories Personal Money Management can:

- help you set budgets for regular expenditure
- automatically record standing order payments
- compare actual versus budgeted savings
- give information about expenditure in each category for particular months over a whole year
- calculate banking requirements each month to help you keep ahead of your bills
- record your banking transactions

The pack contains a 24-page instruction booklet.

Shirley Conran's Magic Garden

Cassette (B)

Based on Shirley Conran's successful book, this is a problem-solving program which provides the complete beginner with instant answers to the questions of what to plant, and where.

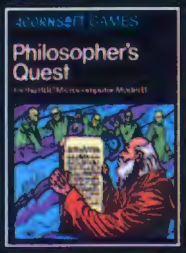
Simply tell the computer whether you prefer a shrub or a flower, the type of soil, light and shade conditions and required flowering time and the computer will come up with a selection of possible plants.

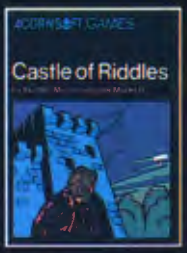
The program comes complete with two ready-made databases containing full information on 55 flowers and 47 shrubs. You can add to these and save them on cassette to build up your own library of garden and household plants.

An instruction booklet is included in the pack.

Acornsoft Games

Help is now at hand for compulsive games players. Acornsoft games take full advantage of the colour graphics and sound features on your BBC Micro. The wide variety of games test your skill, reaction speed and resourcefulness. Pit your wits against the Monsters and Meteors. Enjoy the fiendish adventure games. Challenge your intellect with chess and the dreaded Rubik Cube. Acornsoft games bring new excitement to leisure time. Make sure life's not all work and no play.





Philosopher's Quest

An advanced adventure in which you tell the computer what you want to do, and it describes in plain English your progress through a fascinating world full of fiendish puzzles to be solved. To complete your quest you need to think hard about everything you do!

Countdown to Doom

A mind-boggling adventure in which your ship has crashed on the treasure-laden but inhospitable planet Doom. Grounded on Doom, your ship is both damaged and threatened with total disintegration due to the corrosive effects of the Doom atmosphere. Repairs to the ship must be made before you can escape, and there's also a tempting array of treasure to be collected; but the clock is ticking away all the while, and it's only a matter of time before the ship will disappear in a cloud of dust...

Castle of Riddles

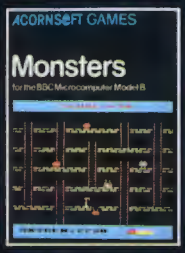
A magical adventure with wizardry and hocus pocus of all kinds. Booby traps and fiendish riddles are the least of your worries as you follow the tortuous route to the Magic Ring of Power. Your reward is to keep the treasure that you find on the way.

Kingdom of Hamil

You are the rightful heir to the Kingdom of Hamil, but, stolen from your royal parents as a child you have only just discovered your birthright. Unfortunately, many other evil people have tried to prevent you from making your rightful claim, and usually by force. Pursued by hostile beings, you have fought your way to a sanctuary, safe for the moment from the terrors outside. You seem to be trapped... but there may be more to this place than meets the eye... You must prove your identity and gather all your treasure to win — but many problems, puzzles and dangers lie in your path!

Sphinx Adventure

A full-sized classic adventure game in which you move through caves, fight with trolls, collect treasure, and finally make your way to the sphinx to collect your reward.



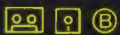
Monsters

Pursued by monsters your man is chased up and down ladders and along walls; the only hope of survival is to dig holes in the walls and trap the monsters by filling them in. Score more by dropping the monsters through several levels, but watch your oxygen level. With sound effects and table of high scores.

Snapper

This colourful game is a superb example of the best in games entertainment. Guide the Snapper through the maze eating dots and fruit and avoiding the creatures that chase you. The game gets progressively faster, and with higher scores as the fruit increase in value. Complete with full sound effects, score and a table of high scores.

Planetoid



An amazing fast-action graphics game. Save the life-forms from their attackers and return them safely to their planetoid while trying to fend off five kinds of hostile space-beings. Complete with sound effects, table of high scores and hyperspace jump.

Arcade Action

Four games in one pack for a variety of entertainment:

INVADERS — fight off the waves of advancing aliens while dodging behind four shelters to avoid being hit by their missiles.

BREAKOUT — an all-time favourite where you knock bricks out of a multicoloured wall. There are seven variations on the standard game.

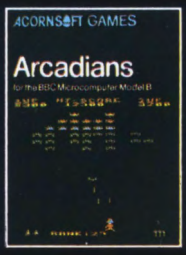
DODGEMS — your racing car has to outwit the computerised car which is programmed to crash into you.

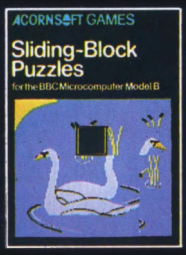
SNAKE — guide the hungry snake towards its prey and watch it grow as it consumes different kinds of food. Score as many points as possible while preventing the snake from bumping into itself or the walls.

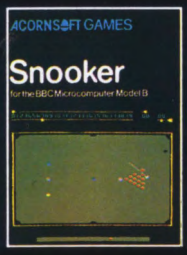
Rocket Raid

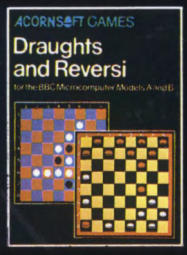
Your mission is to raid a heavily-guarded Martian fuel depot; fly your rocket over mountains and through caverns avoiding enemy missiles and dodging convoys of deadly phizzers. You have to bomb fuel tanks to replenish your fuel.

Includes full sound effects and table of high scores.









Meteors

B

Manoeuvre your laser-ship through a hail of meteors smashing them with your laser bolts as they hurtle towards you on all sides. Avoid being hit by the missiles from hostile flying saucers which fire at you as they pass. Your ship is equipped with as many laser bolts as you can fire and as a last resort you can escape through hyperspace. Complete with sound effects and table of high scores.

Arcadians

B

A fast-moving arcade-style space game, your task being to demolish an onslaught of warring aliens. Your laser-base moves along the surface of the planet while above you the arcadians fly in formation. Without warning, some of them suddenly swoop down towards you dropping bombs.

You are awarded a flag for each screen cleared, and the game gets harder as you progress. Arcadians is a challenging game, even for the expert player! Complete with music, full sound effects and table of high scores.

Sliding-Block Puzzles

B

The Sliding-Block Puzzle is based on the '14-15 Puzzle' invented by Sam Lloyd in the last century when it was the popular equivalent of today's Rubik Cube. On this cassette are six Sliding-Block Puzzles, Alphabet, Numbers, Sunscape, Logo, Pattern and Swans. You can choose how many shuffling moves are made before attempting to solve the puzzle. The computer will tell you how many moves you make, and will actually solve it for you if you get absolutely stuck.

Snooker

B

This is a game for two players and is suitable for both experienced players and learners. Full instructions and the rules of the game are contained in the pack.

You play and score as in the real game. The strength of the shot is controlled by varying the length of the cue, and you are given the option of using backspin and topspin in addition to ordinary shots.

Note: Acornsoft Snooker is unsuitable for black and white televisions.

Draughts and Reversi

A B

Try your hand against the computer with these two popular games.

DRAUGHTS – the traditional game has been faithfully reproduced on screen for you to try your hand at playing the computer. The computer will make sure you follow the rules, insisting that you make all possible jumps or suffer the consequences – the computer has the option of 'huffing' the offending piece.

REVERSI – in this board game each player tries to capture their opponent's pieces, the objective being to gain as many pieces as possible by the end of the game. (Reversi is also known as Othello.)

In both games you challenge the computer, with a choice of difficulty levels, and at the higher levels the machine plays an accomplished game.

Both programs take advantage of all available memory, and so on the Model A the board is displayed in teletext mode, and on the Model B it is displayed in screen mode 1.

Cube Master

A must for Rubik Cube enthusiasts. You can choose the number of shuffling moves made to a completed cube, and then try to solve it. The computer will tell you how many moves you make. Cube Master is special because it will also solve the cube of your choice: you colour in a cube on the screen to match the cube you are trying to solve, and then let the program take you through the solution at your chosen speed. Illegal configurations will be spotted and dealt with.

Hopper

Hop the frog across the busy motorway trying to avoid four lanes of fast-moving traffic. To get across the river to the safety of the frog's lair you must leap on to logs and turtles' backs, but beware of the diving turtles, the crocodiles and the snake.

Complete with music and full sound effects, dragonfly, timer and table of high scores.

Missile Base

As moon base commander, you must ward off the salvos of deadly neutron missiles falling from space onto your base.

Sitting at your control console, with command of three defence stations at your fingertips, you must knock out as many hostile missiles as possible.

Beware the multiple war-head missiles, as these fragment on reaching a certain height, and then devastate your bases with missile fire.

As the game progresses, intelligent missiles arrive on the scene. These avoid your fire, and must be destroyed with cunning.

Complete with satellites, planes and table of high scores.

Starship Command

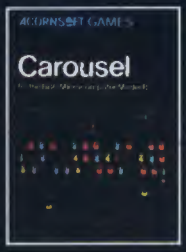
Command a starship against the attacking alien ships in this demanding high-resolution graphics game. You control the forward drive and rotational thrust on your ship which is equipped with shields, long and short range scanners and a sector display of the stars and alien ships.

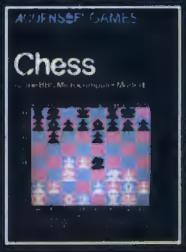
This game includes a table of high scores and comes complete with an instruction booklet.

JCB Digger

One of a range of dynamic, new arcade-style games for the BBC Micro from Acornsoft. You are put in charge of a JCB Excavator-Loader. You can move the JCB digger in four directions, or dig holes and fill them in, so you can dig traps for the Meanies who chase you. Fill the holes in quickly to kill the Meanies, or pick them up in your shovel and dump them in the sea! The action takes place on an island, with the screen acting as a 'window', which scrolls to accommodate the movement of the JCB.

Developed in conjunction with J C Bamford Excavators Ltd, this game is a must for the games connoisseur.





Carousel

A musical shooting range in which you fire at the ducks, rabbits and owls which move across the screen.

Watch out for the diving ducks — if they are allowed to land you lose ten bullets. Score more when you hit caged ducks and polar bears.

Complete with full sound effects and table of high scores.

Chess

A chess-playing program with a high-resolution graphics display of the board, and the following features:

- Play white or black against the computer, or play against another player, or in auto-mode the computer plays against itself
- Ten levels of play, giving novice to professional standards
- Computer moves in ten seconds at lowest level
- Board display with joystick, cursor, or co-ordinate entry of moves, and rejection of illegal moves
- Plays according to current FIDE-ratified rules (for example, 50-move rule etc), and displays moves as standard FIDE notation
- Continuous clock display for tournament chess
- Allows any position to be set up, and 'mate in n' problems to be solved
- Whole games or single board positions can be saved to cassette or disc

Super Invaders

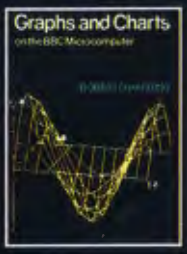
You are being bombarded by waves of invading aliens. The only way to resist invasion and avoid subsequent annihilation is to destroy the aliens before they land.

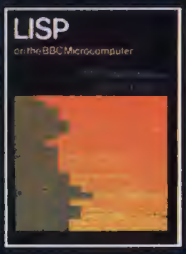
You have three defenders, whose hyper-velocity missiles will instantly vaporise their target on impact. The defenders can shelter from the onslaught behind four bastions, although even these cannot survive indefinitely.

The alien attacks can vary in their ferocity. Sometimes, you may only have a MILD ENCOUNTER; alternatively, you may find yourself in an UNCOMFORTABLE SITUATION, where a faster moving enemy releases a deadlier barrage of bombs. The worst is yet to come with the TERRIFYING EXPERIENCE, where, in addition to all the other hazards, the bombs have a homing capacity and steer themselves towards your defender.

Acornsoft Books

A specially commissioned range of books is available to help you explore the capabilities of your BBC Micro. The books will teach you to program effortlessly. You can produce stunning graphics and complex charts and graphs with the help of example programs given. And get more from your micro by experimenting with other Acornsoft languages.





Creative Graphics on the BBC Microcomputer

John Cownie, A5, 110pp plus 12 colour plates

This book explores the excellent graphics facilities provided by the BBC Microcomputer. There are complete listings for 36 programs which will run on either the A or the B Model to produce a dazzling range of pictures and patterns in full colour. Starting from first principles this book proceeds to explore more advanced routines, explaining in detail the individual procedures that go to make up whole programs.

The programs presented in the book are also available on cassette and disc.

Graphs and Charts on the BBC Microcomputer

Robert D Harding, A5, 104pp

This book describes a set of graphics routines which can be incorporated into programs to present data graphically in a wide range of applications. The graphs include automatic scaling, labelling of axes, two-dimensional graphs, three-dimensional graphs, stereo pairs, two-dimensional contour maps, three-dimensional contour maps, bar charts and pie charts. The programs presented in the book are also available on cassette.

LISP on the BBC Microcomputer

Arthur Norman and Gillian Cattell, A5, 192pp

A comprehensive guide to Acornsoft LISP, with a complete glossary describing all the pre-defined LISP functions. It includes a general introduction to LISP, with several example programs to illustrate the features of the language.

FORTH on the BBC Microcomputer

Richard de Grandis-Harrison, A5, 300pp

This book serves as a general introduction to FORTH, and includes a full description of Acornsoft FORTH with a glossary defining the actions of all the standard words. The chapters are illustrated by many practical examples. The author, Richard de Grandis-Harrison, is Chairman of the UK FORTH Interest Group.

Creative Assembler on the BBC Microcomputer

Jonathan Griffiths, A5, 150pp

This book introduces owners of the BBC Microcomputer to the additional power provided by writing programs directly in machine code.

The first section explains what machine code is, and describes the instruction set of the 6502 microprocessor as used on the BBC Microcomputer. It includes chapters on jumps, branches and loops, logical operations shifts and rotates, addressing modes and registers.

The second section on the mnemonic assembler includes a full description of the built-in assembler on the BBC Microcomputer and explains how to perform two-pass assemblies. This section also covers the use of macros, a survey of the extra facilities provided by BASIC PLUS, a catalogue of useful assembler macros, and an explanation of how large programs which will not fit into memory can be assembled by dividing them into several sections.

The third section, practical assembler routines, gives a number of useful routines together with comprehensive descriptions of how they work.

Finally, a reference section includes a list of all the instructions of the 6502 microprocessor, and a reference table of the BBC Microcomputer operating system calls.

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