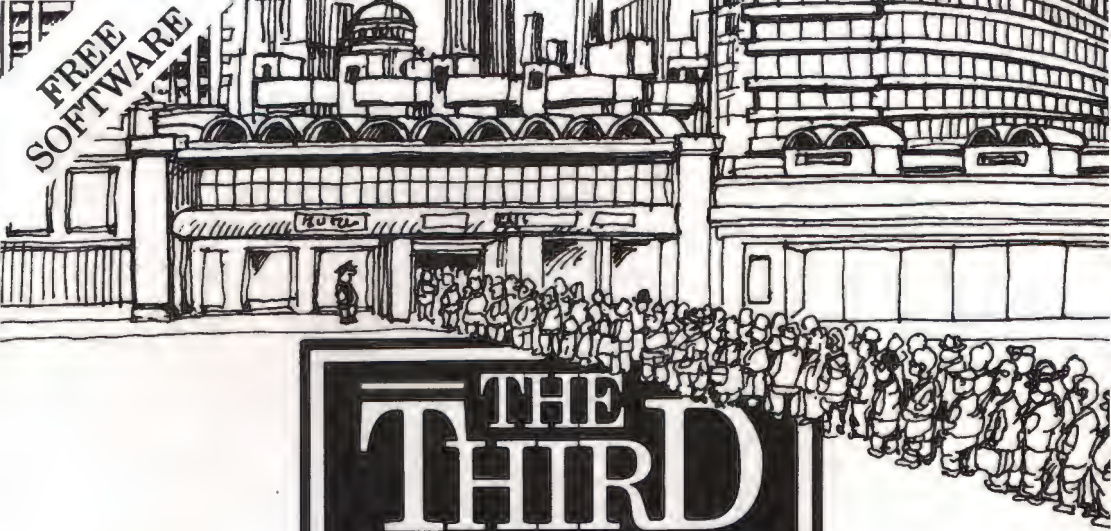

THE THIRD OFFICIAL ACORN USER EXHIBITION

25th-28th July 1985
Barbican Centre, London EC2.

BROCHURE & STAND GUIDE

50p

WIN A PRINTER
DETAILS INSIDE

'THIS one will run and run. That statement was originally made about a play, but it might just as well be applied to the BBC micro and its offspring, the Electron. As Editor of Acorn User for the past three years I have seen a devotion and enthusiasm to a product unequalled in my experience, with a commitment and growth of an industry to match.

What users of any other product would phone a magazine at eight o'clock in the evening -- on Christmas day? Car enthusiasts might spend their Sunday mornings polishing the delight of their lives, but Acorn users program, test, play, zap, enthuse and tear their hair out 24 hours a day. What other magazine can claim that 8,000 people entered a competition that required weeks of programming to win?

The BBC micro was the spearhead of a national computer literacy scheme that has yet to be matched anywhere in the world. And after more than three years it is still going strong. In its wake it has led to many firsts and introduced the British public to computer hardware in a way unheard of before. Although many will decry Acorn's disc filing system, the BBC micro introduced disc drives into our homes -- followed by monitors, printers, modems, mice, and trackballs. The software has led home computers into uncharted territory from wordprocessors to games. Teletext, telesoftware, Micronet, electronic mail, the list And what about the way the micros are used? It is difficult to walk into a school, hospital, industry or business that has not been affected -- or even revolutionised -- by a BBC micro or Electron. From astronomers to speech therapists, magicians to blast steel furnacemen, they are all using BBC

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micros and Electrons.

But after three years of outrivalled success in the computer industry, our two biggest micro manufacturers have had their troubles. And there's nothing like the British media for kicking people when they're down. However, Acorn now has Olivetti to hold its corporate hand. The BBC scheme still has three years to run, the Domesday Project has thousands of children running around Britain to expand the frontiers of video technology. Will it ever end? Not as long as people can think up ideas to stretch the capabilities of all the micros Acorn has built, and continue to develop and produce.

The results of all this trailblazing and the unstoppable enthusiasm are amply demonstrated by the commitment to Acorn User magazine and in this, the third Acorn User Exhibition. The users of half a million Acorn computers are simply not going to lie down and go away. Their micros are going to carry on RUNning. If ever there was a computer equivalent of the Volkswagon, then Acorn makes it.

Tony Quinn
Editor
Acorn User

COME AND MEET YOUR
FAVOURITE AUTHORS
AND TALK TO OUR
EDITORIAL TEAM.
WE'RE LOOKING FORWARD
TO SEEING YOU.

ACORN USER
STAND 45

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- FLEX—The Professional Operating System
- Versatile, Flexible & Powerful, the ideal operating system for industrial control
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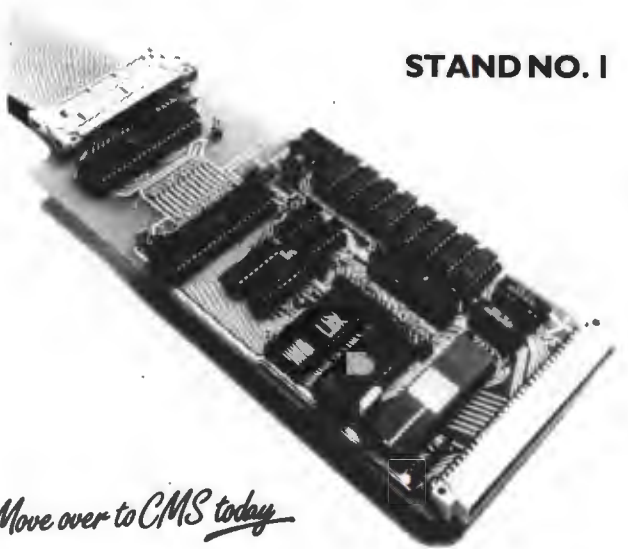

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(0223) 324141

Cambridge Microprocessor Systems Limited

THE THIRD OFFICIAL ACORN USER EXHIBITION

List of Exhibitors

ABACUS BUSINESS MACHINES LTD
The Business Centre
961 Christchurch Road
Pokesdown
BOURNEMOUTH BH7 6AZ
0202 423204
Stand No. 166a

New from Abacus Business Machines Ltd., a low cost interface dedicated to the BBC and Brother Typewriter.
This is an entirely new concept using a straightforward plug in rom and cable kit. Supplied free of charge with the purchase of certain Brother typewriters or separately for only £75 inclusive of VAT. The interface comes complete with full fitting and user instructions.
For further details telephone 0202 423204 or please visit us on stand 166a.
We look forward to welcoming you.

ACORN COMPUTERS LTD
Fulbourn Road
Cherry Hinton
CAMBRIDGE
CB1 4JN
Tel: 245 200
Stand No. 124

Acorn's main Stand (Hall A Lower) will be devoted to communications, education, business applications and third party peripherals and software. Third part demonstrations will include Clifton College's weather satellite pictures (decoded using a BBC) British Telecoms's M2105 messaging system, Econet, The Times Network for schools viewdata system, business software packages for accounts, word-processing, spreadsheets - view family etc. arabic keyboard and demonstrations.
Acornsoft's "Arcade" games stand will allow hands on REvs, Elite, Magic Mushrooms plus many more action games.
Domesday exhibition will show scheme for collecting data nationwide.

ACP LTD
6 Ava House
High Street
CHOBHAM
Surrey
0276 76545
Stand No. 26a

ACP Ltd stands for ADVANCED COMPUTER PRODUCTS and is already well known for its "ADVANCED DISC TOOLKIT".
New products available and demonstrated at the show include Electron & Plus1 "ADVANCED SIDEWAYS RAM" that plugs into the Plus1 and can be configured to take 1 x 16k or 2 x 8k software and is automatically write protected on loading. (includes FREE software support).
"ADVANCED ELECTRON DFS" adds the '1770 DFS' to the Electron Plus 3 ADFS, providing both types of Acorn DFS!
Current projects include:
** BBC B disc upgrade to 1770 DFS/ADFS **

ADVANCED MEMORY SYSTEMS LTD
Green Lane
Appleton
WARRINGTON
Cheshire WA4 5NG
Tel: 0925 62907
Stand No. 3

AKHTER COMPUTER GROUP
28 Burnt Mill
HARLOW
Essex
CM20 2HU
Tel: 0279 443521
Stand No. 21/21a

ALPHA DISC LTD
Unit 2 Crabtree Road
Thorpe Industrial Estate
EGHAM
Surrey TW20 8RN
Tel: (87) 35357
Stand No. 29

Alpha Disc Ltd./Chase Data Ltd., are a group of companies specialising exclusively in the service and sales of Computer Disc Drive sub-systems.
With some seven years experience in the maintenance of disc drives for the computer industry we feel justifiably qualified in offering a professional service for our customers.
Having established credibility in this field we are able to purchase quality products direct from Japanese manufacturers at the most competitive prices, and unlike many of our competitors, we will support our products beyond the one year all inclusive warranty.

A & B COMPUTING
1 Golden Square
LONDON
W1
Tel: 437 0626
Stand No. 39

A & B Computing has been serving the owners of BBC Micro's for over two years, upgrading from a bi-monthly publication to a monthly in September of 1984.
In the Autumn of 1983 the Electron arrived and A & B met the challenge of the demanding computer industry with Acorn themselves.
A & B enthusiastically reported and informed owners of the latest news and reviews of this ever progressing/changing industry.
The content of the magazine reflects the diverse interests of BBC and Electron owners.
Education, business, languages, games and utilities are examined by professionals and the points of view are impartial but thorough - and accurate.

BEYOND the B+!

ARIES-B32

The new ARIES B-32 gives your BBC Model B the enhanced RAM capacity of the Model B+ and more! For full details of this exciting new expansion visit us on stand 117.

SUPER SHOW OFFERS

We are offering very special prices on **MUSIC 500 and ARIES B-20.** We will also be showing the latest developments for MUSIC 500.

Aries Computers

Cambridge Science Park, Milton Road, Cambridge CB4 4BH. Telephone 0223 862614

LOWLAND DESIGNS LTD

Well road LOCKERBIE
Dumfriesshire
Scotland DG11 2EZ
Tel:05762 3399

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ZERO 2

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Intergalactic Robots Ltd
Unit 208
22 Highbury Grove
London N5 2EE

Tel: 01 359 2536

ARIES COMPUTERS LTD
Cambridge Science Park
Milton Road
CAMBRIDGE
CB4 4BH
Tel: 0223 862614
Stand No. 117

Visit Aries Computers to see the thrilling new aries-B32, the upgrade which takes your model 'B' to B+ capacity and beyond. And, take advantage of the special introductory price of £80 + VAT! Aries will also be giving excellent show discounts on MUSIC 500 and ARIES-B20, as well as showing the latest developments for MUSIC 500. Other products on show will be the ARIES-B12 ROM/RAM board and ARIES-B488, the IEEE-488 interface for the BBC Micro. If you already own an Aries board, why not drop by and pick up the latest application notes, or simply stop off for a chat!

BBC PUBLICATIONS
35 Marylebone High Street
LONDON
W1M 4AA
01-927 5617
Stand No. 23

A wide range of exciting software for the BBC and Electron machines is on sale and demonstration on this stand.
New products include Monitor, a sophisticated full-function monitor to help assembly language programmers, which comes complete with ROM, program cassette and comprehensive manual. Programmers will also need Toolbox 2, a unique package which not only provides essential programming aids on cassette. but also explains how they work in the accompanying book!
Also on demonstration will be two delightful maths packages from the highly acclaimed schools series Maths with a Story, and a new disc version of White Knight Mark 12, the strongest, most powerful chess program you can buy for the BBC machine.

BEEBUG PUBLICATIONS
PO Box 50
ST ALBANS
Herts
Tel: 56 60263
Stand No. 46 & 46a

BEEBUG and ELBUG, the independent national user groups for BBC micro and Electron users, will have their range of magazines on display together with supporting cassettes and discs of magazine programs. Members also benefit from a wide range of discounts and special offers. Visit our stand and find out more. Beebugsoft will also be demonstrating their range of utility and application software. If you use your computer in the home, business or education, you will find something of interest on our stand. Programs being demonstrated include Toolkit, Sleuth, Masterfile, Exmon, Murom, Quickcalc, and our new Function/ Procedure Library.

BEL TECH LTD
College House
St Leonards Close
BRIDGNORTH
Shropshire WV16 4EW
Tel: 07462 5420
Stand No. 57

BEL BASE	-	Database Manager with Calculation Options. Printer Control and Report Generator. MAILSHOT included.
BEL BASE 2	-	Extensive Database Manager with powerful facilities including Extension Files.
BEL CHARTS	-	Line Graphs, Bar Charts, Stacked Bar Charts, Histograms or Pie Charts. Plain or 3D.
BEL GRAPH	-	Graphs, Charts, Function Plots. Automatic scaling and drawing of axes. Compatible on Disc with BEL BASE and BEL BASE 2.
BEL CHEM I	-	'O' Level Revision Chemistry Calculations.
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BEL GEN	-	Dedicated Database for Family History and Genealogy. Many options including Male/Female Line Tree.
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BRAINSTORM COMPUTER SOLUTIONS
103a Seven Sisters Road
LONDON
N7 7QN
Tel: 263 6926
Stand No. 24a

Brainstorm Computer Solutions is involved in a wide range of activities in the professional computing field. We provide hardware, software, implementation and support.
Our particular areas of interest are:
- Communications, including our own powerful Private Viewdata System.
- Networking, we have many successful installations.
- Office Automation, Free Text Retrieval database.
- Upgrade paths, CP/M compatibility and MS/PCDOS including TORCH and UNIX, the emerging Multi-User Multi-Tasking standard.
- Training - courses, hardware and software aids.

NEW PRODUCTS
We have developed a low cost Logic Analyser, used with the BBC, for use in training Digital Electronics.
We have a low cost Expert System written to run under PCDOS, MSDOS, CP/M & UNIX as well as a version for the BBC micro.

BRITISH MICRO
Penfold Works
Imperial Way
WATFORD
Herts WD2 4YY
Tel: 0923 48222
Stand No. 70

Designed and manufactured in Watford by Hegotron Robotics, GRAFPAD II is announced by BRITISH MICRO at an incredible value for money - £69.95 including VAT. A true digitiser with 0.18mm resolution AND accuracy, a generous active area of 24cm x 18cm and three touch sensitive buttons, GRAFPAD II has new powerful graphics software included.
Also available, at a resolution and accuracy of 0.1mm, new release A3 GRAFPAD has an active area of 37cm x 30cm - £299.00 including VAT. The intelligent A3 model has RS232 interface and optional protocols - £399.00 including VAT

BROADWAY ELECTRONICS
Aston Road
BEDFORD Stand No. 120 0243 58303

CAMBRIDGE ELECTRONIC DESIGN LTD
Science Park
Milton Road
CAMBRIDGE
CB4 4BH
Tel: (0223) 316186
Stand No. 40

Cambridge Electronic Design are demonstrating their CED 1401 intelligent laboratory interface for the BBC B. This professional interface, which has its own processor and 64k byte memory, is easy to drive from the BBC and is supplied with extensive software for laboratory use.
The interface has 16 twelve bit analogue input channels (maximum rates over 67 kHz), 4 analogue outputs, digital I/O, events, 5 clocks accurate to 1 microsecond plus a calendar clock. The memory is expandable to 2 Mbytes. The standard software includes FFTs for spectral analysis and transfer function measurement, signal averaging, neurological signal capture and analysis.

BIZZELL'S BLOCKBUSTER BARGAINS

HIGH SPEED, HIGH QUALITY, FOUR COLOUR, FLATBED.

PRINTER/PLOTTER Only £399

- Prints horizontally or vertically in text.
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- Full guarantee.
- BASIC ASCII command codes and parameters.
- Full manual (cassette and commands for BBC Micro).

Ideal for graphs, drawings, symbols, axes, geometric patterns, charts, diagrams, circuits, computer art, flowcharts, 3-D, contours etc.

RD DIGITAL TRACER

Produce illustrations on your computer simply and easily using the tracer to copy existing material. Simply run the tracer head over anything you want to produce. Complete with full instructions, manual and software. BBC **£69.95** SPECTRUM **£59.50**

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400k, Double Sided, 40/80T switchable.
Single drive **£175**
Dual drive **£295**

UCHIDA DWX 305

Daisywheel printer **£295**

LEADS

Printer/Plotter **£10**
I.E.E.E to Centronic with interface **£40**
Parallel to Centronic with interface **£30**

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THE THIRD OFFICIAL ACORN USER EXHIBITION

25th-28th July 1985
Barbican Centre
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TEACHERS AND PARENTS

Send for FREE educational software catalogue covering all ages from pre-school to 'A' level. All programs listed and described.
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WALNUT TREE HOUSE,
FORNCETT ST. PETER,
NORWICH NR16 1HR.

PERSONAL CALLERS WELCOME (10.00-5.00) Phone for appointment (095389-592)

CAMBRIDGE MICROCOMPUTER CENTRE
153/4 East Road
CAMBRIDGE
CB1 1DB
0223 355404
Stand No. 164a

Following the successful publication of "The Advanced User Guide for the BBC Micro" and "The Advanced BASIC ROM User Guide", Cambridge Microcomputer Centre have released the long awaited "Advanced Disk User Guide" which will be available on stand 164a.

CAMBRIDGE MICROPROCESSOR SYSTEMS LTD
44a Hobson Street
CAMBRIDGE
CB1 1NL
Tel: 0223 324141
Stand No. 1

CARE ELECTRONICS
Unit 14
Peerglow Industrial Estate
Tolpits Lane
WATFORD
Herts Tel: 0923 777155

Stand No. 12

Products available:

1. Computer printer selector 6/1, 2/1.
2. Dual power supplies. Standard version and high rated version.
3. Monitors.
4. TV monitors.
5. TV conversion monitors.
6. Low profile ROM module system.
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8. Ready made computer leads.
9. CPX2 switcher.

CDS/BLUE RIBBON SOFTWARE LTD
Silver House
Silver Street
DONCASTER
South Yorks DN1 1HL
0302 21134
Stand No. 101

Come to our stand and see the full range of Blue Ribbon Software - a budget range for the BBC and Electron of 13 tapes.
Blue Ribbon are the first company to offer an extensive range (10 titles) for the BBC of 'pocket money' prices, as well as 3 excellent games for the Electron that have never been made widely available before.
ALL TITLES RETAIL AT £2.50.

CENTRAL TRADE EXCHANGE LTD
Ashton Lodge
Ashton Road
DUNSTABLE
Beds LU6 1NP
0582 61283
Stand No. 164

Central Trade Exchange will be showing the latest innovation in Graphics imput devices for the BBC micro. This Marconi Tracker Ball is gaining increasing popularity with Home, Educational and Business Users and is supported by a variety of software packages, from simple Utilities to Hi-Tech CAD, some supplied FREE with every unit. C.T.E. is first in the market with its new AMSTRAD Interface-Box and ICON based Graphics program allowing the standard BBC Tracker Ball to be used with the AMSTRAD range of Micros. Furthar dealer/distributor enquiries are welcome for both home and overseas markets. Contact Gerald Roll. Tel: 058261283. Telex 825115 CENTRAX

CHALICE SOFTWARE
3 Merlin Way
Covingham
SWINDON
Wilts SN3 5AN
Tel:0793 615026
Stand No. 141

CHALICE SOFTWARE are an accomplished firm, who were well received by the public on tha basis of their VECTOR range of utility software, VETOR1 (Tape to Disk) & VECTOR2 (Disk to Disk) of which new versions are on release at tha show. On tha firmware side we produce THE SCYTHE which is an advancad toolkit ROM, and our latest release ROM MASTER, on sale at what constitutes a breakthrough price for Firmware.

CJE MICROS
78 Brighton Road
WORTHING
W Sussex
BN11 2EN
Tel: (0903) 213900
Stand No. 17a

CJE Micros will be demonstrating their range of quality printer utility software and printers.
Fontaid, a recent release provides users of Canon and Kaga Taxan NLQ printers with a wide range of different style fonts, including Italic, Shadow, Gothic, Outline, Square and Bold.
It can even allow 192 column printing on 8 inch paper and 374 column on wide carriage Canon and Kaga Taxans. Fontaid does not stop there, it comes with a utility program to allow users to define their own fonts.
We will also be demonstrating our wide range of quality printers including Star, Juki, Canon and Taxan Kaga.

COLLINS EDUCATIONAL
8 Grafton Street
LONDON
W1X 3LA
Tel: 493 7070
Stand No. 130

Publishers of quality software with the emphasis on education and practical applications.
Collins Soft recently launched the highly acclaimed Brainpower series, one title recently winning a BMA award. Two titles are available for the BBC B, Forecaster and Project Planner. Hill MacGibbon publish the Pan Course Tutors in Biology, Chemistry, Maths, Physics and French, and also educational games to stretch the minds of younger micro users.
Collings/Hill MacGibbon also publish Microspecial, a unique life skills resource pack for schools.
A variety of books for the micro enthusiast is also available, published by Collins.

UP TO 32k SIDEWAYS RAM BOARD

FOR THE BBC PLUS CAPABILITY OF WRITE PROTECTION INCLUDED

This RAM board comes complete with 16k of RAM fitted and sockets available for an additional 16k RAM which can be fitted later by plugging in, this will give a total capability of 32k.

Plugs directly into socket 12 or 15 in BBC or will work in conjunction with HCR external RAM/ROM unit.

No soldering will be required and it has the extra bonus of a write protect switch to be mounted either in the reset space, rear of case or in spare LED position on right hand front of keyboard. A right protect switch is fitted to prevent corruption of data loaded into RAM.

Sideways RAM is intended to run sideways ROM type software of your own either under development or as an alternative to actually committing to expensive eproms.

Sideways software may be kept on disc and loaded into sideways RAM simply by typing *Load < NAME > 8000. The RAM can be loaded 16k at a time or by assembling to Hex 8000. A simple program is provided in the manual to transfer software (in RAM or ROM) into user RAM where it can be modified and written back to RAM or saved on disc. With suitable software RAM can be used as a printer buffer or as a data store, etc.

Supplied complete with 16k of RAM and easy fitting instructions £31.50 (£36.22 inc. VAT)
Further 16k RAM £10 (£11.50 inc VAT). **Please allow £2.00 P&P**

Also available: Internal 16 socket ROM/RAM card, External 28 socket ROM/RAM card, Eprom Programmer & eproms

ORDERS TO:
H.C.R. ELECTRONICS, Industrial Unit, Parker Road, Chelmsford, Essex CM2 0ES.
24 Hour Answer Phone Service:
Chelmsford (0245) 350188

EXTERNAL RAM/ROM CARD

THE NEW EXTERNAL 28 ROM EXPANSION SYSTEM FROM HCR ELECTRONICS

This extremely powerful but versatile machine has the capability of: 32K RAM & 24 sockets available for ROM *or* many various combinations to your personal requirements.
This machine has its own separate power supply which eliminates drain on the BBC's switched mode supply.
NO SOLDERING IS REQUIRED.

The unit consists of two modules:
1. An adaptor board to plug into the BBC sidways Rom socket 15.
2. The expansion case.

The case comes complete with an inbuilt power supply and one expansion card. This card will hold 12 Roms or a combination of Ram/Rom (Ram can be 6116's, 2016's or 6264's). This gives a total of 16 Roms (including four in machine).
A second board identical to the above can be fitted at a later date, giving a total capability of 28 available sockets for Rom or Ram.
The second board can be selected as an alternative to the first board, either by a switch on the case *or* via software control.

SOME ADVANTAGES
1. No soldering required.
2. No access into machine required after initial fitting.
3. No overheating problems.
4. Does not physically interfere with other internal expansion add-ons.
5. Built in power supply (does not overload BBC's supply).
6. Computer will still function with external box powered down or unplugged (using Roms resident in machine).
7. Will make available 32K Ram plus 24 Rom sockets at a varied combination to the customer's needs.

Cost unit complete with one board £75.00 + VAT
Second board £29.00 + VAT. Postage & Packing £3.00

HCR ELECTRONIC SERVICES
THE INDUSTRIAL UNIT, PARKER ROAD
CHELMSFORD, ESSEX CM2 6ES
Tel: Chelmsford (0245) 350188

Educational specialist
Microworld are Scotland's sole Scottish based distributor with vast experience of Econet and can offer installation, service, advice and supply throughout the U.K. Our London office is now open to service the entire country. Please call for our latest Educational Prices or phone for our list of dealers nationwide.

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Telecom Gold No. MMD 230

Come and Visit us on Stand 22 and pick up a bargain

Cumana CSXL 100 Disk Drive & DFS Kit (£146)

Cumana CD 800/s Disk Drive (Dual) & DFS Kit (£349)

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BRANCH NETWORK THROUGHOUT THE UK

Glasgow	Aberdeen	Edinburgh
041 332 1116/041 226 3011	02 224 571735	031 557 4196/031 228 1111

COMMOTION/LOGOTRON
241 Green Street
ENFIELD
EN3 9SJ
Tel; 804 1378
Stand No. 71

59 Markham Street
LONDON
SW3 3NR

Logotron and Commotion represent a new breed of companies serving the educational computing sector, with product lines designed to meet teachers needs. Logotron has built its reputation as the publisher of a powerful and extensible implementation of the programming language LOGO for the BBC Micro. Commotion sell low-cost robot arms, servo motors and vision systems to educational establishments and hobbyists. These products are complimentary: Logotrons software can be used to control Commotions hardware with specialised extensions.
Also on the stand is Logotrons sprite logo for the BBC as featured in this months Acorn User - visit the stand and you could win a sprite logo package.

COMMUNITEL
189 Preston Road
LONDON
W10 6TH

01-960 7998

Communitel Ltd make their debut at the Acorn User Exhibition.
They will display their DIY viewdata/bulletin board software as featured in the Acorn User magazine (August 1985 issue).
Launched in January this year, the software has been favourable received by over 600 educational establishments, libraries, local authorities and small businesses. The software enables any non-expert BBC Micro B user to set up an on-line information service and enter the world of electronic publishing and electronic mail painlessly.

COMPUTER BOOKSHOPS LTD
30 Lincoln Road
Olton
BIRMINGHAM
B27 6PA
Tel: 021 707 7544
Stand No. 127

Go to stand 127 where Computer Bookshops has a huge range of Beeb books on display. Computer Bookshops are the countrys largest wholesaler of computer books and this is a rare opportunity to browse their stock in one place.

COMPUTER CONCEPTS
Gaddesden Place
HEMEL HEMPSTEAD
Herts
HP2 6EX
Tel: (0442) 63933
Stand No. 104

COMPUTER USERS CLUB
69 Harlow Road
WELLING
Kent
DA16 1AA
Tel: 311 2555

The Computer Users Club on stand 1 table are offering the latest Business Disc Operating System.
This is completely compatible with existing Acorn Disc Systems and Torch/CPN/MCP or 6502 Second Processors.
For the duration of the show C.U.C. will be giving a £5.00 voucher which may be used towards the purchase of BS-DOS, and also a voucher towards a Rapid Access Database system utilising BS-DOS which costs only £4.00.
BS-DOS allows 256 files on one disc and works well with Wordwise or Prestel chips. Its files are readable both on Z80 CPN or BBC 6502 as required.

CONTROLLED ACTION
TECHNOLOGY SYSTEMS
101 St Martins Lane
LONDON
WC2N 4AZ
Tel 992 0385
Stand No. 130a

A programme pack called "ICPA" uses the successful world famous critical path analysis techniques for you to draw and calculate work schedules or project programmes as simple networks. The pack is interactive and allows you to update, modify and reschedule the networks so that critical project dates can be met.
It will enable you to describe work activities, highlight Critical Paths and give you printouts of activities, scheduled times, floats, earliest and latest starts and finishes and the network itself. You can also present the information in bar charts. All these results can be arranged in any order you want.
Using a BBC B microcomputer and second processor (Z80 or 6502) you draw your project networks in colour simply with a joystick and single or double key commands. The screen issues prompts and messages and there is a Help facility always accessible.
The complete disc pack and comprehensive user manual manual costs £150.00 + VAT.

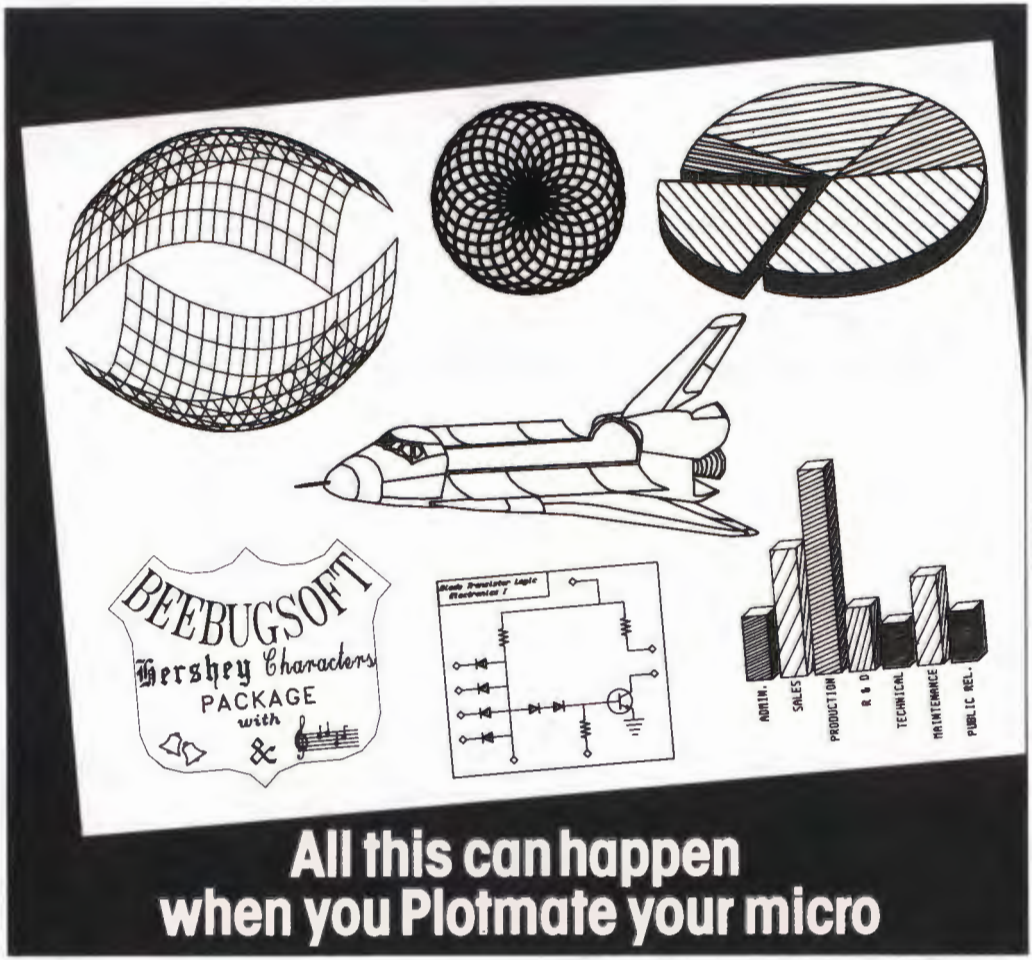
CUMANA LTD
Pines Trading Estate
Broad Street
GUILDFORD
Surrey GU3 3BH
Tel: 0483 50312
Stand No. 27

Cumana will be exhibiting their proven range of prestige, BEAB approved disk drives and peripheral devices for the BBC and Electron Micros.
QFS and the Touch-Pad (now with an improved software library) will also be featured.
Business users will be able to see and obtain information on the new and exciting O-S-9 (68008 Processor) board for the BBC B.
Most importantly, bargains will be the order of the day!

DATALINK UK
4 Hillside Street
EDINBURGH
EH7 5HB 031-5574138

DEALER DEALS LTD
20 Orange Street
LONDON
WC2H 7ED
Tel: 930 1612
Stand No. 105

The amazing Demon Modem, the magnifying Megarule and a good selection of other products will be available. Dealer Deals promises some amazing deals and prices especially for the exhibition.



All this can happen when you Plotmate your micro

Plotmate is new. Excitingly new.

It's a rugged, responsive flatbed plotter with a lot of built-in magic.

You can use it to create fantastic patterns. Some small as a postage stamp. Or big as an A2 poster.

It'll produce overhead transparencies for you. And all dimensions of graphs, diagrams and charts.

It'll also prepare maps. Then put the contours in.

And that's only part of it.

You should see its repertoire of characters – a whole sci-fi population for you to manipulate.

Plotmate software accepts all the colour, vector, character and graphics commands of your BBC micro.

You just plug it in and away you go. All for less than £300.*

Phone 0702 541664 for details. Get Plotmating soon.

LINEAR GRAPHICS LIMITED
28 Purdeys Way Purdeys Industrial Estate Rochford Essex
Telephone: 0702 541664 Telex: 995701 Ref 356

STAND NO. 63

*exc VAT

DIRECT DISK SUPPLIES LTD
29 Dagmar Road
KINGSTON UPON THAMES
Surrey
KT2 6DP
Tel: 541 1144
Stand No. 30

Direct Disk Supplies offers a comprehensive range of computer magnetic media, and items such as printer ribbons and labels. The company distributes floppy disks, tapes, and disk packs from major manufacturers such as 3M, Maxell, BASF, Verbatim, Control Dataset, Dysan and Sony.
Also available Ex-Stock: Head cleaners, storage boxes and library cases. We offer cash and carry prices by telephone.
Special exhibition prices start from £9.99 per 10 disks with extra discounts for large purchases and special tenders.
Call on Stand 30 and carry away a real bargain.

DISCO TECH (UK) LTD
Lex House
3-6 Alfred Place
LONDON
WC1
Tel: 631 0255
Stand No. 32

Will be selling their XLTRON range of 5¼ diskettes and storage boxes. They will have their complete range on display and promise to have the cheapest prices at the show.

EAGLE DISPLAY LTD
29 Hollow Way Lane
AMERSHAM
Bucks
02403 21702
Stand No. 19a

If you have or are thinking of buying a BBC or Electron you could learn French, German, Italian or Spanish from our SEE and HEAR cassettes for only £5.95 inc. You could also protect your expensive equipment with one of our dust covers or arrange it on an expandable, stackable range of high quality steel stands at a low show price.
Alternatively you could treat someone or yourself to our latest product - a power distribution unit - and have 'clean' power and no more trailing wires.
Please come and see us for details of these and other products at special show prices.

EDUCATIONAL COMPUTING
Priory Court
30/32 Farringdon Lane
LONDON
EC1
Tel: 251 6222
Stand No. 121

ELECTRONEQUIP
36-38 West Street
FAREHAM
Hants
PO16 0AW
0329 230671
Stand No. 58

Electronequip is a well established independant computer retailer, having been operating for over three years. We provide a complete range of services for the hobbyist, small business user, and corporate customer requiring consultancy or specialist software. We startnd with the Atom, progressed through the BBC and complete Torch range including being a full Torch UNIX centre. Our demonstration facilities include Level 1 and Two Econet, 10 station Torchnet, 5 user Unix system, and Graduate. We cover the full range of operating systems, including CP/M, MSDOS UNIX and of course the BBC. We also provide an extensive mail-order service often giving next day delivery.

ELECTRONICS & COMPUTING
Priory Court
30-32 Farringdon Lane
LONDON
EC1R 3AU
Tel: 251 6222
Stand No. 118

Electronics & Computing is the magazine for the serious BBC micro user. Our unique blend of articles, reviews and projects makes Electronics & Computing essential reading.
Amongst the special features in our August issue, we show you how to use a Dragon 64 as an impressive but inexpensive 6809 second processor for the BBC micro, we also have a special offer on a BBC experimenter ROM.
Throughout the exhibition we will be giving away free gifts such as the BBC circuit diagram and will hold a daily prize draw with a chance to win major prizes.

ERGON STRUCTURES LTD
Weaveland Road
Tisbury
SALISBURY
Wilts SP3 6HJ
Tel: 0747 870500
Stand No. 55

"Designed to cope with the problems which others choose to ignore" is the slogan for the Ergon computer trolley. Since its launch at last years show its many users have enjoyed its benefits in school and office - particularly the uniquely neat way the cables and leads are managed.
Thanks to a continuous slot in the upper surface, no wires hang out. Whats more, it offers really effective use of space - not just shelves - to hold printer paper, software and extra equipment securely.
The trolley is exceptionally stable and robust, has rounded edges and will pass through narrow doorways. 3-inch rubber-tyred castors, stabilising feet, and a fixed 4-gang socket block, cable and plug are provided as standard. Lockable sliding doors are available as an extra.

GEMINI MARKETING LTD
18a Littleham Road
EXMOUTH
Devon
EX8 2QG
(0395) 265165
Stand No. 162

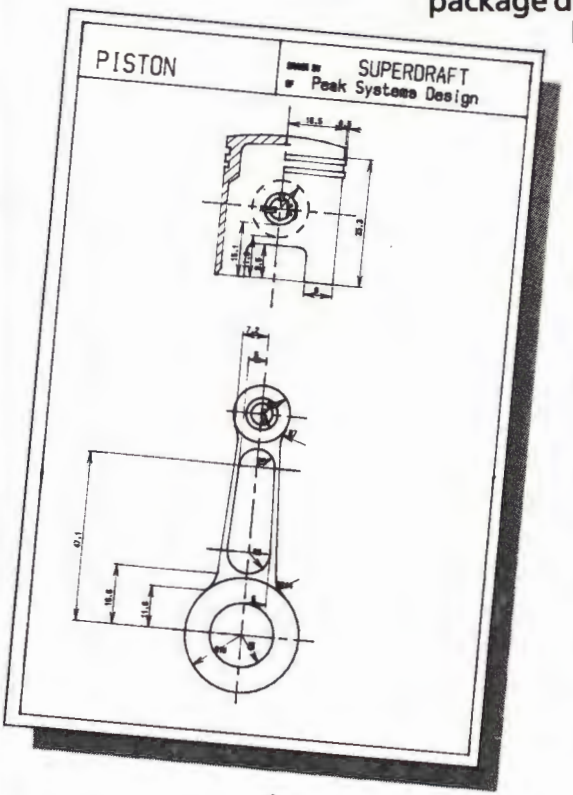
If you are a serious user of the BBC micro, then a visit to Gemini's stand is a must. We shall be demonstrating our fabulous new 'Triple-D' suite (see advertisement in this guide), comprising a disk based database, spreadsheet and business graphics - all with a common file structure. Thus for example, data from the database can be loaded directly into the spreadsheet, and data from the spreadsheet into the graphics etc.
Making use of the BBC's random access filing system, this suite of programs really must be the last word in utility software - each module is sensibly priced at £29.95 and a combination pack containing all three modules costs only £69.95.
Come and see us if youre looking for professional software - youll be glad you did.

GP PERIPHERALS
May Place House
May Place
BASINGSTOKE
Hants RG21 1NX Stand No. 26a

Superdraft

BBC/TORCH... PRECISION DRAUGHTING FOR THE ENGINEER

Superdraft is a computer aided draughting package developed for the serious user. It has functions which include



- Text at any position, size and angle
- Zoom, move, scale, rotate and reflect
- Automatic finding of objects and intersections
- Automatic parallel, perpendicular, radial and tangential lines
- Automatic crosshatching (any angle, pitch and line type)
- Automatic dimensioning (with tolerancing to ISO standards)
- Arc-blending and curve-fitting
- Symbol libraries (predefined and user-definable)
- Calculation of areas, perimeters, moments, CG and principle axes

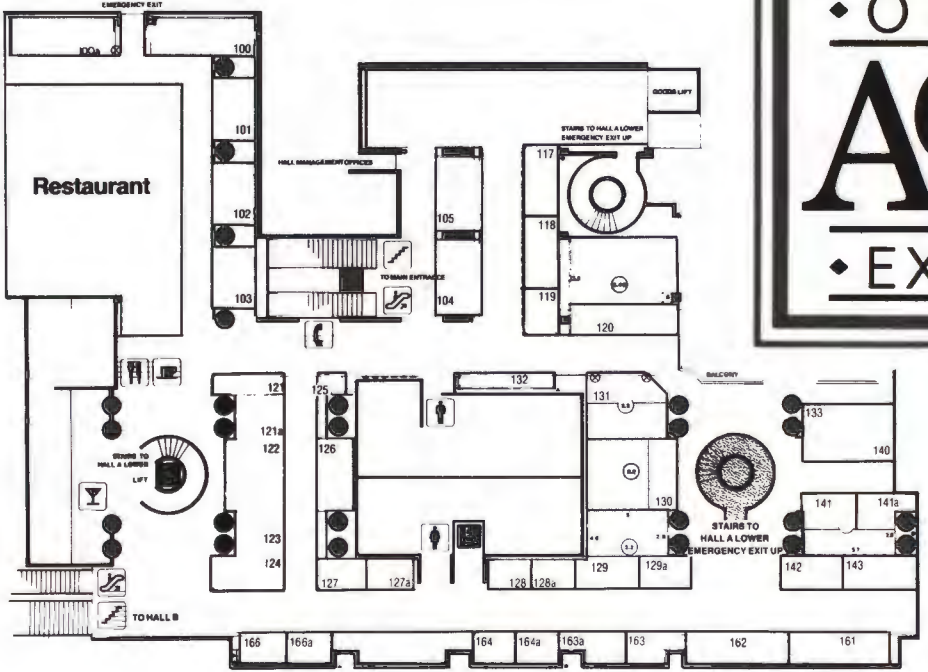
peak
SYSTEMS DESIGN LTD

1 Orgreave Way,
Handsworth,
Sheffield S13 9LS
Tel: (0742) 696863

See us on stand 62

STAND GUIDE

BARBICAN EXHIBITION CENTRE
Hall A Upper



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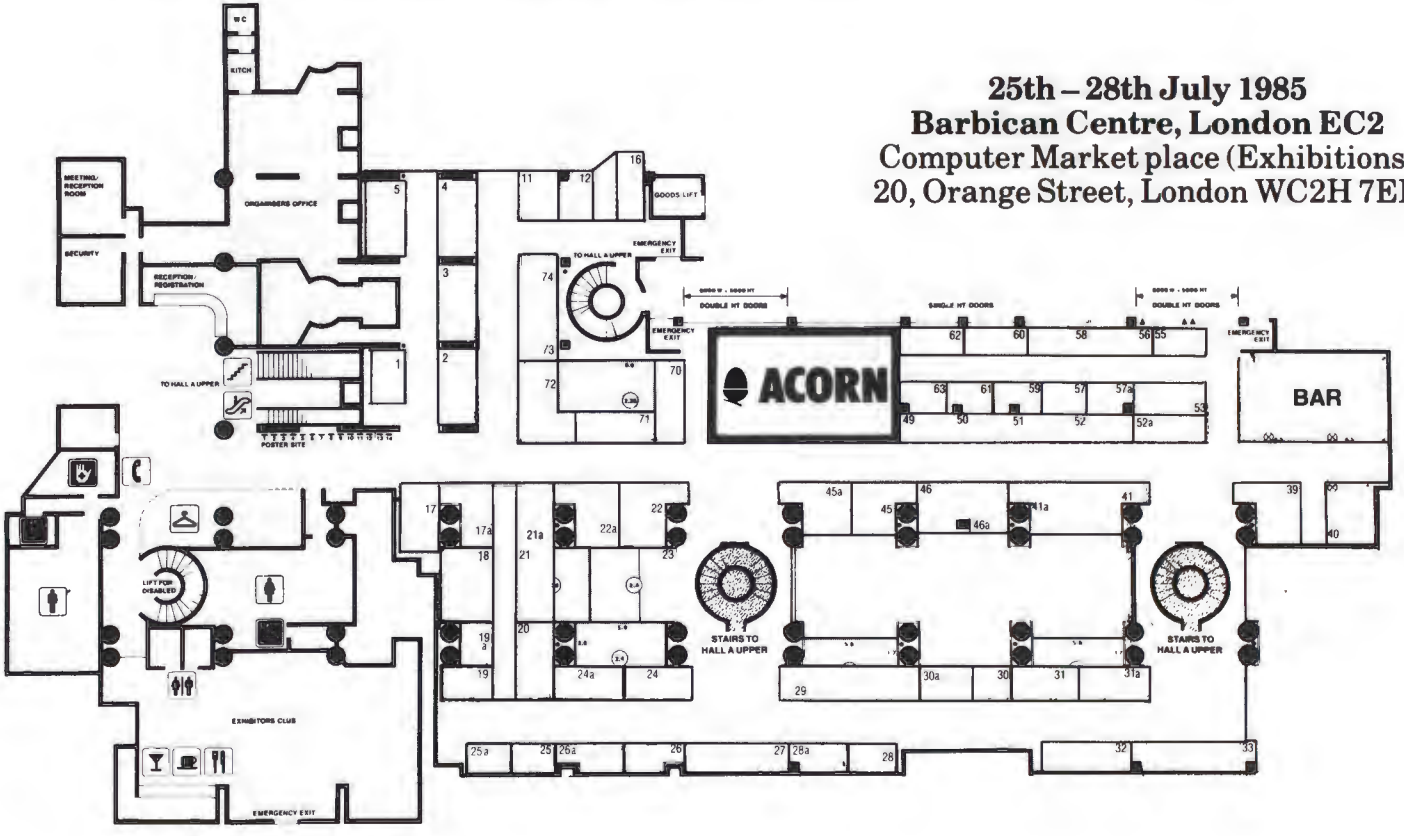
EXHIBITION

BARBICAN EXHIBITION CENTRE Hall A Lower

25th – 28th July 1985
Barbican Centre, London EC2
Computer Market place (Exhibitions)
20, Orange Street, London WC2H 7ED



GEMINI DON'T HANG AROUND

Whilst we're proud to stand and admire our tried and tested range of serious software for the BBC micro — we don't hang around. Our development team are all too aware of the need to keep up with the demands of tomorrow's user and so we are pleased to introduce to you the ***'TRIPLE-D'*** system.

At last, TOTAL INTEGRATION and data file compatibility between the three most important utility packages for your BBC micro disk system — Database, Spreadsheet and Graphics. Take a look at the specification.

THE REVOLUTIONARY 'TRI

Of great significance to businessmen, educationalists and hobbyists alike, these programs are certainly the most powerful and sophisticated of their breed, and may be used 'stand-alone' or together as a suite. Gemini have probably the most experience in writing serious software for the BBC micro, with classics such as BEEBCALC and BEEBPLOT achieving sales of tens of thousands of units. We have drawn on almost four years of experience and user feedback to produce what we are confident will be hailed as the ultimate in functional software for the BBC micro: the ***'TRIPLE-D'*** Integrated Suite. We've also brought it in at a price that should make it accessible to more of you, and most importantly, we're giving you REAL value for money.

DDD-BASE *£29.95*

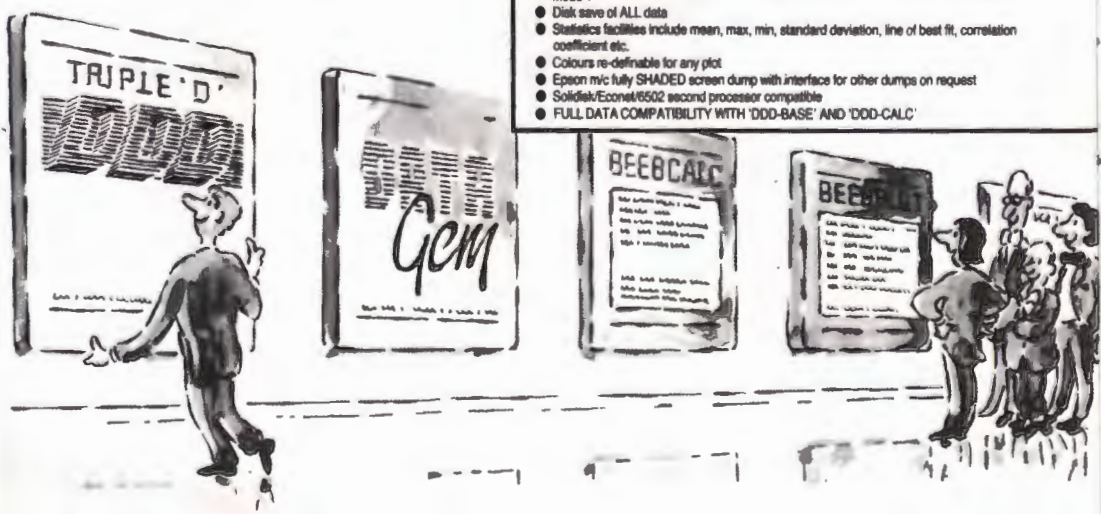
- Up to 2000 records, 1 search level subset, 26 fields/record, 2 drives, 79 chars/field
- Scrolling screen, 79 x 26. Interrupt driven real-time clock
- Layout painted on-screen to your design, including background text/graphics
- Fully menu driven, with powerful line editor and access to *OS commands
- Default entry capability, no need for tedious re-typing of repetitive data
- Lightning search using advanced 'hashing' techniques
- Powerful maths, allowing all BASIC functions, on any field
- 10 user-defined variables to simplify complex calculations
- Multiple level 'intelligent' sort — program only sorts 'out-of-order' data
- Printed reports in record or summary format. Data spool option for transfer to other files
- Solidisk/Econet/6502 second processor compatible
- FULL DATA COMPATIBILITY WITH 'DDD-CALC' AND 'DDD-PLOT'

DDD-CALC *£29.95*

- True disk-based spreadsheet, 2000 rows, 26 columns, 52000 cells. Powerful line editor
- Fast, smooth machine code screen scroll with pop-down menu
- Individually adjustable column widths with text overflow
- Full relative and absolute replication
- Find and move to a row by name
- User defined variables, delete/insert rows, SORT rows with 'DDD-Base'
- Send data from all or part of sheet to printer, or just print cell formulae
- Data over 1 or 2 drive surfaces
- Fast recalculation, even over large files
- All BASIC functions allowed, plus 'SUM', 'MAX', and 'MIN'. *OS calls, and real time clock
- Data spool option for merging with other files
- Solidisk/Econet/6502 second processor compatible
- FULL DATA COMPATIBILITY WITH 'DDD-BASE' AND 'DDD-PLOT'

DDD-PLOT *£29.95*

- Stunning menu driven colour graphics using the BBC's capability to the full
- Pie charts, histograms, scatter graphs, line graphs and function plotting
- Disk save of screen for instant recall within your own programs
- Superb data entry editor with up to 255 plottable data entries for text and x/y coordinates
- Automatic scaling with user override
- Screen customisation allowable after plotting for background text etc., with up to 64 columns in Mode 1
- Disk save of ALL data
- Statistics facilities include mean, max, min, standard deviation, line of best fit, correlation coefficient etc.
- Colours re-definable for any plot
- Epson m/c fully SHADED screen dump with interface for other dumps on request
- Solidisk/Econet/6502 second processor compatible
- FULL DATA COMPATIBILITY WITH 'DDD-BASE' AND 'DDD-CALC'



PLE-D' BBC DISK INTEGRATED SOFTWARE SYSTEM

The modules, which are formatted for both 40 and 80 track systems, are available separately, or as an economical combination pack. Each module is clearly documented with a comprehensive, indexed manual, with training sections that refer to demonstration applications provided with each disk. Remember, ***'TRIPLE-D'*** uses proper random-access files that will take advantage of your true disk capacity, even over TWO drive surfaces. Have you ever heard of a true disk-based spreadsheet before? Well it's here now in the form of the ***'TRIPLE-D'*** suite and can handle up to 52,000 FILLED cells! If you already have our 'DataGem' ROM database, you'll be pleased to know we've even included some special utilities for you!

I confidently recommend the ***'TRIPLE-D'*** suite to you. If you purchase the product from us and don't share my enthusiasm, return it to us in new condition within seven days of purchase and we'll refund your money – immediately and without quibble.

Dale Hubbard
Chairman & Managing Director
Gemini Marketing Limited

INTEGRATED

SEE US ON STAND 162

GEMINI MARKETING LTD Gemini House, Concorde Road, Dinan Way Industrial Estate
Exmouth, Devon EX8 4RS Tel. (0395) 265165 (4 lines) Telex 42956 GEMINI

Gemini

Express 24 hour credit card orders (Amex, Access) **0395 265165** immediate guaranteed despatch

Gemini, please rush me in dual 40/80 track format:

Ref.	Item	Qty.	£ each	Total
M0101	DDD-Base	.....	29.95	.....
M0104	DDD-Calc	.....	29.95	.....
M0109	DDD-Plot	.....	29.95	.....
M0118	Combo Pack All 3	.....	69.95	.....

Prices include VAT and post and packing

Cheque/P.O.'s enclosed £ .....

Or charge my Amex/Access No. .....

Signature ..... Name .....

Address .....

.....

Or available from leading software stockists

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GRIFFEN COMPUTERS
8 Rainsford Road
STANSTEAD
Essex
0279 812295
Stand No. 28a

HCR ELECTRONIC SERVICES
INdustrial Unit
Parker Road
CHELMSFORD
Essex
Tel: 357935
Stand No. 19

HCR Electronics has brought out a new 32k RAM card for the BBC PLUS. Competitively priced, this makes a welcome addition to our wide and popular range of products. We offer very keen special prices for schools, colleges and computer clubs.

HIGHLIGHT SOFTWARE
36 Sherbourne Close
BARRY
S Glam
CF6 5AQ
Tel: 0446 745482
Stand No. 129

Highlight Software have an established reputation for producting programs that combine entertainment and education in such a way that children really enjoy learning. Come along and try our range of Reading, Number and Road Safety games which will be on display at discount prices, and you could win a very special prize!

HOLLY COMPUTERS LTD
PO Box 17
BINGLEY
W Yorks
BD16 3JQ
Tel: 0274 564092
Stand No. 143

HOME TUTOR
7 Sussex Gardens
Highgate
LONDON
N6 4LY
Tel: 348 7604
Stand No. 103

"Home Tutor" the very first On Screen home tuition course for computer users from 8-80.
The 'Home Tutor' is a unique course written by professional computer teachers, in easy to understand language. It takes you step by step, with examples and exercises, through the maze of computer language and logic. It gives you the skills to create your own programs and games, and design your own computer system. You are assigned a personal tutor you can contact, to answer any problems you may have as you progress through the course.
'Home Tutor' is designed for students, housewives, the retired, people seeking new jobs or wanting promotion and for all businesses.

IDS COMPUTER SUPPLIES
PO Box 436
Bancroft
MILTON KEYNES
Bucks MK13 0QX
0908 310896
Stand No. 163

IKON
Kiln Lake
Langlane
CARMARTHAN
Dyfed 099421 515

INTERGALACTIC ROBOTS LTD
Unit 208 Highbury Workshops
22 Highbury Grove
LONDON
N5 2EE
Tel: 359 2536
Stand No. 127

Intergalactic Robots Ltd will be demonstrating the latest and greatest in personal robotics, the ZERO 2 Microrobot. The first true microrobotic system for under £100.00 with power supply, interface, software and manual will be at the show for all to see and play with.
ZERO 2 is a robot for leisure, educational and industrial training and has hundreds of applications for the enquiring mind and the hardened games player alike. ZERO 2 has dual stepper motor drive, programmable LED's, three tone beeper unit, pen attachment for Turtle graphics, and a line follower sensor unit built into the basic £99.95 unit.
ZERO 2 Microrobot is the beginning of a system of robotic add-ons: Infra Red remote Control Unit, Speech and Sound Generator, Obstacle and Hole Detectors and facilities designed in for you to add your own inventions and third party products.
Come and see ZERO 2 on Stand No. 127.

KANSAS CITY SYSTEMS
Unit 3
Sutton Springs Wood
CHESTERFIELD
Derbys S44 5XF Tel: 0246 850357

KEMPSTON MICRO ELECTRONICS
Singer Way
Kempston
BEDFORD
MK42 7AW
Tel: 0234 856633
Stand No. 20

Kempston Micro Electronics will be exhibiting an exciting new range of products at this show.
Kempston's popular Motor Racing game 'Chicane' will be available for both the BBC and the Electron.
In addition to the BBC Pro Joystick, Kempston now have two interfaces for the Electron, A Centronics, and a Joystick Interface. All of these products will be available at special exhibition prices.
You can also get some racing team merchandise at real knock down prices.
Hurry while stocks last!

KENDA ELECTRONIC SYSTEMS LTD
Nutsey Lane
Totton
SOUTHAMPTON
Hants SO4 3NB
Tel: 0703 869922
Stand No. 126

Kenda Electronic Systems Ltd is exhibiting two add-on products for BBC users: a disc filing system, and reel-to-reel magnetic tape. The Professional DMFS with PADS is a powerful package, with its own RAM, for serious users of the BBC microcomputer. Features include - double or single density, up to 379 files per disc, any file easily extended, "cant extend" never occurs, maximum file size over 700k bytes.
The B6000 intelligent magnetic tape controller allows easy connection of industry standard ¼" magnetic tape to any micro or mini computer by means of standard interfaces, including RS232.

KBNT MICRO COMPUTERS LTD
57 Union Street
MAIDSTONE
Kent
0622 62784

U2 ROM for Acorn 6502 or Z80 2nd Processors

Up to 28k Printer Buffer
Loses Mode 7 Monitor Jitters
Switches Roms on or off as required
Transfers data between processors at 64k/Sec
Simplifies saving screen Ram to disk (6502 only)
Easy access to machine code routines on your I/O Processor
Unique * prefix command
Tried and tested with numerous commercial programs
Author on stand to answer questions
The only utility Rom for 2nd Processors, essential for serious users.

LCL EDUCATIONAL SOFTWARE
26 Avondale Avenue
STAINES
Middx
Tel: (0784) 58771

Today LCL are releasing and displaying their new complete course for the first time. It is MEGA MATHS, a comprehensive 24-program, self-tuition or revision course taking users to A-level Maths. It is the long-awaited sequel to the ever-popular MICRO MATHS, so now beginners are taken step-by-step right through to A-level. They are also showing their innovative MICRO ENGLISH, the 24-program O-level course that includes real speech incorporated into the software (no extras are required). See also their other EDUCATIONAL SOFTWARE, for ages 3 up, for the BBC and ELECTRON on tapes or DISCS (40/80 track) and Econet compatible. Most software is at SPECIAL SHOW PRICES.

LINEAR GRAPHICS LTD
28 Purdeys Way
Purdeys Industrial Estate
ROCHFORD
Essex SS4 1NE
0702 541664/5
Stand No. 63

Linear Graphics manufactuje and sell a high quality, extremely versatile plotter for the education, small business and home-user markets. PLOTMATE retails at under £300.00.
In its basic form PLOTMATE is dedicated to the BBC Microcomputer. Anyone that can use BBC Basic is able to move immediately into plotting graphics; just connect PLOTMATE to your computer, load the system disk supplied and begin - no special driver software is required.
Alternatively, PLOTMATE is compatible with most commercial graphics packages, including Logotron, Beebug and Acornsoft Graphs and Charts.
PLOTMATE can also be used with other microcomputers with the addition of INTER-MATE, an intelligence module which links to either the Centronics or RS232 interfaces.
Visit Stand 63 for a full demonstration.

LOWLAND DESIGNS LTD
Well Road
LOCKERBIE
Dumfriesshire
Scotland DG11 2EZ
Tel: 05762 3399
Stand No. 18

The Tutormate computer work station Mk. 3 exhibited by Lowland Designs is designed mainly for schools but is practical for both home and office use.
Its special features are two shelves of differing heights which are interchangeable above and below the main work area (1120 x 510) which is itself adjustable to three heights to suit all ages of schoolchildren.
This unit costs £59.75 plus VAT carriage paid.
An optional extra is a sliding monitor shelf which extends the viewing distance between the user and the monitor.
We are also exhibiting a small range of commercial computer furniture.

LW STAINES & CO
Unit 2
Roding Trading Estate
London Road
BARKING
Essex IG11 8BU
01-591 2900
Stand No. 61

LW Staines & Co will be exhibiting their Ogre range of robot arms and interfaces and will also be showing for the first time the new revolutionary two-armed multi axis Troll Robot 1A new range of custom made "off the shelf" robotic parts.

MAXIM COMPUTER SYSTEMS LTD
96 Lexham Gardens
LONDON
W8

01-373 3684

Many people believe that assembler is a "professionals only" language.
This is quite untrue. ANyone who can learn basic can learn assembler.
It is faster, shorter and ideal for handling hardware.
That is why professionals use it.
Maxim is a new 16k assembly system. It brings some of the most advanced assembly facilities to the microcomputer. It makes machine-code manageable.
It allows interactive programming from the keyboard. Labels are displayed and used during debugging.
It also allows the basic interpreter to be used.
If you would like to know more, come and ask us or try it out.

MEMOCO ELECTRON
15 Windsor Street
MELTON MOWBRAY
Leics
0664 63544
Stand No. 141a

Memoco Electron will be exhibiting the Memoco Electron Robotic Arm. This competitively priced Robotic Arm has all the features of the more expensive units with five axis of movement plus jaw control. All axis have full position feedback. The device is the ideal introduction to Robotics with computer control. Memoco will also be showing the 200 in One Electronic Lab Kits, Multimeters and other like devices. All being offered at special show prices.

MERLIN COMPUTER PRODUCTS
35/36 Singleton Street
SWANSEA
SA1 3QN
0792 467980
Stand No. 56

MICRO-AID
25 Fore Street
Praze
CAMBORNE
Cornwall TR14 0JZ
Tel: 0209 831274
Stand No. 128

MICRO-AID which was formed in 1978, helps people understand the use of micros by giving 'AID'.
COMPILER, DATABASE, SPELL-CHECK, CASHBOOK, MEMO-CALC, MAILING, PAYROLL, STATISTICS, FRENCH ABROAD, UTILITIES, FLAGS, DISTANCES, INTERNATIONAL HANGMAN and more. Valuable programs written by us for you. We also offer WORDWISE, WORDWISE-PLUS, SCRIBE, PASCAL, FORTH, LOGO/ FORTH and SCREEN DUMP ROM's.
Come and see our latest release, EXTENDED RANDOM ACCESS PAYROLL, which offers a personnel file as well as full peyroll facilities for £49.95 + VAT.
HIGH PRICES DONT MAKE GOOD PROGRAMS - GOOD UNDERSTANDING PROGRAMMERS DO - Come and discuss your personal software problems with us.

MICRO MEDIA COMPUTER SUPPLIES
Rydal Mount
Baker Street
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Herts EN6 2BP
Tel: 0707 50914
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For all your computer supplies requirements dont miss the Micro Media stand No.: 119. We have Unbeatable exhibition offers on : Floppy discs, Printer ribbons, Computer paper and Labels, Disc storage, Printer cables and Printer Sharers, Daisy wheels, Anti-glare screens and Cleaning Products.
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MICRO SIMPLEX (SALES) LTD
8 Charlotte Street West
MACCLESFIELD
Cheshire
SK11 6EF
0625-61537
Stand No. 142

Micro-Simplex is the leading computer program for small businesses. It is based on the Simplex 'D' Cash Book System as used by many thousands of businesses. It looks after all the accounts of you business and at the end of the quarter will produce you BAT Return for either retailers special schemes 'A' to 'F' or for Standard VAT.

With the introduction of Invoicing and Customers Accounts, Micro-Simplex now meets the needs of over 1,000,000 small businesses in the UK.

Simple to use and without needing to understand any double entry book-keeping you will be amazed how powerful this low-cost program is.

MICRODEAL LTD
41 Truro Road
ST AUSTELL
Cornwall
PL25 5JE
0726 73456
Stand No. 31

MICROFAST
39 Coronet Street
LONDON
N1 739 4223

MICROWORLD COMPUTER GROUP LTD
4 St Andrew Square
EDINBURGH
EH2 2 BD
Tel: 031 357 4196
Stand No. 22

THE MINIATURE TOOL CO
26 Queensbury Station Pavilion
EDGWARE
Middx
Tel: 951 1183
Stand No. 2

Suppliers of custom made cables and Memorex diskettes.

INTERNATIONALLY FAMOUS

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★ **DINING.** For those dining in our softly lit restaurant, a superb 3 course dinner is only £14.75 incl VAT plus Service Charge.

★ **DANCING.** 8.00p.m.-2.00a.m. to our resident Trios. Beautiful companions plus Tantalising Striptease Cabaret Acts every hour. Intimately arranged seating.

Entrance fee £8.50 but for those ordering dinner before 9.00p.m. (10.00p.m. Sats) — with or without a Gaslight Angel — a reduction is made on your Restaurant food bill of £5 per person.

Please inform Receptionist on entry if taking advantage of this offer.

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ST. JAMES'S, LONDON SW1.
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or a la carte
Open 12.30p.m.-3.30p.m.
MONDAY-FRIDAY
Or just sneak down and have a drink

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ST Peters Street
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IP1 1XB
0473 216141
Stand No. 31a

MIRACLE TECHNOLOGY (UK) LTD feature their multi-speed, multi-standard modem WS2000 - British Microcomputer Awards Peripheral of the Year Finalist, at a special show offer price of £119.95 Exc.
DATABEEB, Miracle Technology advanced communications ROM for the BBC computer will also be featured, and dont miss our new WS3000 range of intelligent upgradeable modems.
Our MINOR MIRACLES BBC LIGHT PEN brings out the artist in everyone. Freehand drawing in three line thicknesses and eight colours.
Lets you save and print out pictures. Includes cassette software and costs only £15.00!

MORLEY ELECTRONICS
1 Morley Place
SHIREMOOR
Tyne & Wear
NE28 8RY
Tel: 091251 3883
Stand No. 16

The Morley Electronics stand features the very latest in Teletext technology. Their state-of-the-art TELETEXT ADAPTER is the most modern tuning under software-control.
The ROM Software allows you full access to any page of the CEEFAX or ORACLE services, giving you the option to save pages to disc/tape for subsequent viewing. It also allows you to download telesoftware, thereby giving access to the wealth of free programs currently being transmitted by CEEFAX.

The current price, held for the duration of this exhibition, is £90.40 for the adapter and ROM (including VAT & P.P.)

MUSE
PO Box 43
HULL
Humberside
HU1 2HD
Tel: 0482 20268
Stand No. 102

MUSE is a national organisation which exists to help all those involved in education to make use of small computer systems in the promotion of learning.
Membership is open to all, parents, teachers and children.
MUSE educational software, written and tested by teachers, covers all age ranges and subjects.
MUSE publications include a Beginner's Guide to Basic and a Beginner's Guide to Assembly Language.
MUSE software and publications can be seen and ordered from the stand. In addition the committee present will be pleased to give help and advice on educational problems concerning microcomputers.

NATIONAL METAL COMPANY
Unit 6 National Works
Bath Road
HOUNSLOW
Middx TW4 7EA 01-572 2688

NMC has large stocks of new intergrated circuits, including the 2764 Eprom, at very competitive prices. Also on display are robot perts and add-ons, including stepper and printed circuit motors, from Y.F.PRODUCTS, and the opportunity to try the superb MALTRON Keyboard.
Details of a new range of low cost Rom software for the BBC and ELECTRON are available, and NMC welcomes enquiries from potential authors.
NMC are part of the JAYTON METAL GROUP, who are best known for computer disposal and precious metal recovery.

NORWICH COMPUTER SERVICES
6 Upper King Street
NORWICH
NR3 1HA
Tel: 0603 621157
Stand No. 125

Wordwise Plus Users! Help is here at Last! "Using Wordwise Plus" and "Wordwise Plus Programming Ideas", two new books by Paul Beverley, fill the gap between the two Wordwise Plus manuals.
Continuous Processing ROM - Handle large documents (limited only by your disc system capacity), preview in 80 column mode, print and preview specific pages or specific files and global search and replace.
Paul Beverley, will be available to answer queries about Wordwise, Wordwise Plus or any other technical matter, hardware or software.
Norwich Computer Services is at your service!

OAK UNIVERSAL LTD
20 Crofters Green
Green Lane
Idle
BRADFORD
W Yorks BD10 8RR
Tel: 0274 614167
Stand No. 11

OPUS SUPPLIES LTD
55 Ormside Way
Holmethorpe Ind Estate
REDHILL
Surrey
Tel: 65080
Stand No. 58

Watch-out for some special summer price offers from Opus Supplies at the Show. Opus, one of Britains leading suppliers of disc drives and computer equipment to the home and education markets, is currently staging a special summer pricing campaign with lots of tempting bargains reserved specially for the Acorn User event.
As usual the company will be displaying its complete range of Japanese 5¼" disc drives which all carry the longest warranty on the market - a full two years.
The Opus double density disc interface - DDOS - will also be available together with the companys price-leading high resolution colour monitor and value for money Organiser home computer desk.

PACE MICROTECHNOLOGY
Juniper View
Allerton Road
BRADFORD
W Yorks BD15 7AG
0274 488211
Stand No. 73/74

Pace will be demonstrating access to Micrelink with the Electron RS423 interface and terminal software using their modem 'Nightingale'.
On sale will be the Nightingale modem and Commstar, along with the comprehensive range of Pace 5¼" floppy disc drives.

Were it not for AKHTER DISK DRIVES

For quality brand names

the prices would probably never come down!

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- 40/80 track switchable.
- Track to track access time of 3ms.
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  - — a 6502 machine code disassembler.
  - — formatting program for 40 & 80 tracks.
  - — a number of very useful utilities covering MDUMP, MERGE, RELOCATE, SDUMP, VERIFY & MENU.

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HARLOW, ESSEX, CM20 2HU, U.K.
Tel: HARLOW (0279) 443521 Telex: 818694 AKHTER G

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PB COMPUTER SUPPLIES
PO Box 35
FAREHAM
Hants
PO15 6HL
Tel: 0329 230353

PEAK SYSTEMS DESIGN LTD
1 Orgreave Way
Handsworth
SHEFFIELD
S Yorks S13 9LS
0742 696863
Stand No. 62

Superdraft is a powerful drafting package developed by Peak Systems Design Ltd, for BBC/TORCH computers. It has functions which include:

- text at any position, size and angle
- zoom, move, scale, rotate and reflect
- location of objects and intersections
- automatic parallel, perpendicular, radial and tangential lines
- crosshatching
- dimensioning
- arc-blending and curvefitting
- symbol libraries (predefined and user-definable)
- calculation of areas, perimeters, moments, CG and principal axes.

Complete systems, including plotter, digitiser and twin 400k drives, start at around £3,500. The Superdraft software itself costs £950, all prices excluding VAT. Contact Peak Systems Design Ltd, (0742) 69683.

PILOT ONE LTD
Victoria House
46 St Augustines Road
BEDFORD
MK42 2ND
Tel: 0234 67938
Stand No. 53

A range of interfaces and software used by pupils in both primary and secondary schools.
PILOT IN CONTROL. A Course in control technology for secondary pupils utilising a simple yet robust interface and a range of models constructed from LEGO (r) and fischer Technic (r) components. The software is written in structured BASIC and provides an absorbing introduction to the world of robotics for students with a range of ability. Alternatively, BASIL - a control language that opens-up the world of robotics to children from 9 years of age.
An Educational Development Agency involved in the production of teaching materials for use in schools. A full range of course in microprocessor appreciation are planned over the next year.

RAMAMP COMPUTERS
25 Avon Drive
Whetstone
LEICESTER
Tel: 0533 864966
Stand No. 128a

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RA20 +12	20k Video + 12k or 32k sideways RAM	£67.00
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REDWOOD PUBLISHING LTD
68 Longacre
LONDON
WC2E 9JH
Tel: 836 2441
Stand No. 45/45a

ACORN USER

COME AND MEET YOUR FAVOURITE AUTHORS AND TALK TO OUR EDITORIAL TEAM. WE'RE LOOKING FORWARD TO SEEING YOU.

ROBOCOM LTD
Clifton House
Clifton Terrace
LONDON
N4 3TB
Tel: 263 8585
Stand No. 133/140

ROBOCOM, market leaders in low cost CAD, will be launching their new BITSTIK 2 Technical Drafting system at the Acorn User Show. Designed from user feedback on earlier systems, the program combines impressive drafting facilities with unique user-friendliness. BITSTIK 2 will be the first professional CAD system to operate on the Beeb.
BITSTIK 2 represents a significant step forward from the successful BITSTIK 1 Graphics System currently available for the BBC Model B.
Plotter software is now available and will also be seen at the show.
Although eminently suitable for all drafting disciplines from architecture to circuit design, BITSTIK 2 is expected to find particular favour with the educational fraternity, as many schools and colleges already use BBC Model B's in their classrooms.

SHARDS SOFTWARE
189 Eton Road
ILFORD
Essex
IG1 2UQ
Tel: 514 4871
Stand No. 8

Shards Software are one of the oldest established software houses for the BBC and Electron, specialising in high quality family adventures and a well-received series of educational software. We will be offering sizeable discounts on all software and will be featuring the three newest additions to our catalogue; namely Galilee, our historical adventure translated from the Spectrum, The Lost City, the long awaited sequel to Java Star and Middletown, a full blooded adventure mystery pecked with features. We welcome old friends and look forward to making new ones at the show.

SLOGGER LTD
215 Beacon Road
CHATHAM
Kent
ME5 7BU 0634 811634/41622
Stand No. 59

As the leading supplier of ROM software for the ELECTRON, SLOGGER will be revealing its Database to compliment its powerful Word Processor STARWORD. Also Available will be the new ROMBOX-P with built-in printer interface and Printer buffer to add to its range of Electron peripherals. This latest peripheral together with its Disk interface currently in development will maintain SLOGGER'S position as the lead support company of the ELECTRON. Also on display will be its range of support for the BBC and the OPUS DDOS. See "*TREK", SLOGGER'S latest ROM software product for the BBC being demonstrated at the show.

SOFTLIFE LTD
7 Rose Crescent
CAMBRIDGE
CB2 3LL
Tel: 0223 62117
Stand No. 57a

The Softlife stand has something to appeal to all users of the BBC micro - their PEROM PROGRAMMER for hobbyists, their NUMERIC KEYPAD, for small businesses, and their new LOGIC ANALYSER, for electronics research and development and test engineers.
You are welcome to come and try these products, and speak to our technical expert, who will be on hand throughout the show to answer your queries.
Also available will be a range of books for the BBC micro and the Acorn Electron from Adder Publishing, including the much acclaimed 'Basic Rom User Guide'
So come along to stand 57a, and see for yourself.

SOLIDISK TECHNOLOGY LTD
17 Sweyne Avenue
SOUTHEND ON SEA
Essex
Tel: (0702) 354674
Stand No. 47/50/51/52

SUNSHINE
12/13 Little Newport Street
LONDON
WC2H 7PP
Tel: 437 4343
Stand No. 161

Visit the Sunshine Books stand 161 during the show to take advantage of a great offer on all BBC and Electron titles in the Sunshine range.
All books available at the unbeatable price of £1 per copy. For £10 you can have a complete library of Sunshine's high quality Acorn titles.
This offer is open exclusively from the Sunshine stand to visitors to the Acorn User show, so make sure you grab the opportunity to pick up some great value books while stocks last!

SYSTEM
12 Collegiate Crescent
SHEFFIELD
S Yorks
S10 2BA
Tel: (0742) 682321
Stand No. 52a

UNITED DISK MEMORIES LTD
Stanhope House
Fairbridge Road
LONDON
N19 3HP
Tel: 281 2438
Stand 22a

UDM are internationally renowned for the DDFS Double Density Filing System, and our comprehensive range of both 5¼" and 3½" Disk Drives for the BBC micro.
Our product range also includes: A Rom/Ram Board with 16k Ram on board and free Rom Manager/Transfer Software. The 100% Board, which when run with the UDM DDFS, allows the use of either Acorn DFS or U.D.M. Double Density Filing System, Thus giving 100% Software compatability to the BBC User.
The 100% Board comes with a Disk Sector Editor for both single and double density.
The latest products from UDM are both enhenced versions of our two best selling lines, plus the new 100% Board.

VIGLEN COMPUTER SUPPLIES
Unit 7 Trumpers Way
Hanwell
LONDON
W7 2OA
Tel: 843 9903
Stand No. 72

Viglen offer the most comprehensive and lowest priced disc drives for the BBC micro. The drives are cased and fully tested at our factory in London where you can purchase by mail order or by calling personally at the premises. Viglen also offer full servicing capabilities and are a very helpful and friendly company.
Viglen also recently branched out to supply printers and monitors of exceptional value.
NEWSFLASH: Ask about the latest ROM Cartridge System, Remote Keyboard and Eprom Programmer.

VINE MICROS
MARSHBOROUGH
Near Sandwich
Kent
Tel: 0304 812276
St and No. 129a

Following the launch of their successfull T.D.ROM earlier in the year, Vine Micros have scored yet another first in the field of tape to disc transfer. This brand new system is more sophisticated than the T.D.ROM in-as-much that is is 100% effective and has a mid-play 'stop-and-save' facility. It will he more costly than the T.D.ROM, and is not intended to be a replacement, Vine Micros, however, will be offering an exchange facility for present users wishing to upgrade to the new system.
The T.D.ROM and the ADDCOMM Toolkit and graphics ROM will also be on show

---

WATFORD ELECTRONICS
250 High Street
WATFORD
WD1 2AN
Tel: 0923 37774
Stand No. 41/41a

SHOW TIME IS LAUNCH TIME WITH WATFORD
It is sometimes said that software 'makes' a machine, but Watford Electronics realise that of equal importance is comprehensive hardware support. Following the launch of five software packages at the last Micro Show, Nazir Jessa (Watford's MD) is pleased to launch three more hardware products to the range that has already made Watford Electronics a household name amongst BBC users. These products are 'Le Modem', 'The Delta Card' and 'Watford Real Time Clock' (RTC).
Le Modem - The complete package for auto dial, auto answer, multiband rate, totally software controlled communications with a BBC micro.
The Delta Card - 'Fourth Generation BBC Hardware', increases the speed of your BBC by up to 100% as well as providing another 48k of RAM.
The Watford RTC - with battery backup offers full dete and time facilities with extensive software support.

WESERVE
128 West Street
PORTCHESTER
Hants PO16 9XE
Tel· (0705) 325354
Stand No. 24

WESERVE is the company which you will not be familiar with it is a new company founded by Peter Coates. It's aim is to provide the best possible service at the best price. For instance all orders are processed the day they are received.
At the show they are launching a new Joystick for use with the Elite game by Acornsoft. It enables all the main functions of Elite to be controlled from the Joystick.
They will also be selling Eproms & Rams chips plus the KP810 printer at very competitive prices.

WIGMORE
32 Savile Row
LONDON
W1X 1AG
Tel: 734 0171

Wigmore House Ltd. have on sale the MEGAMOUSE and more modestly priced TRACKBALL.
MEGAMOUSE is available with either MOUSEPAINT introductory software or the more advanced and CAD orientated CADMOUSE package.
CADMOUSE is particularly powerful with features usually found only on much more expensive software e.g. Duplication, reverse, dimension lines and drag mode and operates in mode 0 (high resolution) or 1 (colour).
TRACKBALL comes with either MOUSEPAINT for BBC or Electron or CADTRACK (similar to CADMOUSE) for BBC.

KALEIDOSCOPE

For the BBC and electron, type in and run

```
   10 REM Kaleidosco
pe
   20 REM by C Johns
ton
   30 REM (c) Acorn
User 1985
   40 MODE6
   50 PROCinit
   60 MODE2
   70 PROCpattern
   80 REPEAT
   90 K%=INKEY(0)
  100 IFK%>0 THENPRO
Ckey
  110 IFD%>5 THENPRO
Cforward ELSE PROCre
verse
  120 UNTILFALSE
  130 DEFPROCinit
  140 DIMC%(15),D%(1
0)
  150 FORD%=0TO10
  160 D%(D%)=100-(D%
-5)*(D%-5)*4
  170 NEXT
  180 N%=-1
  190 REPEAT
  200 N%=N%+1
  210 READF$
  220 UNTILF$=""
  230 REPEAT
  240 PRINT"WHICH PA
TTERN (1-";N%;") ";
  250 INPUTF%
  260 UNTILF%>=1 AND
 F%<=N%
  270 RESTORE
  280 FORL%=1TOF%
  290 READF$
  300 NEXT
  310 DATA 6E6 DIV (
(X%-604)*(Y%-60)*(X%
-Y%-100))
  320 DATA 5E7 DIV (
(X%-204)*(Y%-300)*(X
%-Y%-300))
  330 DATA 5E4 DIV (
(Y%-60)*(Y%-X%+204))
  340 DATA 1.2E5 DIV
 ((Y%+1)*(Y%-X%-1))
  350 DATA 1E6 DIV (
(Y%+1)*(Y%-X%-1))
  360 DATA 1E5 DIV (
(X%-404)*(Y%-150))
  370 DATA 3E8 DIV (
(X%+500)*(Y%+500))
  380 DATA 100*(Y%+8
) DIV (X%+8)
  390 DATA 1000*(Y%+
8) DIV (X%+8)
  400 DATA 1200*(X%+
350) DIV (Y%+500)
  410 DATA X%*(Y%+1)
 DIV 40
  420 DATA X%*(Y%+1)
 DIV 80
  430 DATA X%*(Y%+1)
 DIV 200
  440 DATA X%*(Y%+5)
 DIV 1000
  450 DATA (X%*X%+Y%
*Y%) DIV 1000
  460 DATA (X%*X%*X%
+Y%*Y%*Y%) DIV 1E5
  470 DATA ""
  480 *FX9,50
  490 *FX10,50
  500 D%=10
  510 ENDPROC
```

S P I D E R

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Look out for the SPIDER

SPIDER – stamps out I/O bugs

£65.00 including VAT

A breakthrough in ease-of-use for all Control Applications

Here's what you get:

- ***Additional BASIC commands – which can be safely mixed with existing BASIC keywords.***
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THE THIRD OFFICIAL ACORN USER EXHIBITION

Name _____

Address _____

Postcode _____

Please complete in block capitals

```
  520 DEFPROCpattern
  530 VDU23,1,0;0;0;
0;
  540 VDU29,640;512;
  550 FORY%=0TO512ST
EP8
  560 FORR%=1TO3
  570 VDU19,RND(15),
RND AND 15;0;
  580 NEXT
  590 FORX%=Y%TO640S
TEP8
  600 GCOL0,EVAL(F$)
 AND 15
  610 FORA%=-1TO1STE
P2
  620 FORB%=-1TO1STE
P2
  630 PLOT69,X%*A%,Y
%*B%
  640 PLOT65,0,4
  650 PLOT69,Y%*B%,X
%*A%
  660 PLOT65,0,4
  670 NEXT
  680 NEXT
  690 NEXT
  700 NEXT
  710 ENDPROC
  720 DEFPROCkey
  730 REPEAT
  740 IF(K%=46 OR K%
=62) AND D%<10 THEN
D%=D%+1
  750 IF(K%=44 OR K%
=60) AND D%>0 THEN D
%=D%-1
  760 IFK%=32 THEN D
%=5
  770 IFK%=13 THEN P
ROCblack
  780 K%=INKEY(0)
  790 UNTIL D%<>5
  800 *FX15,1
  810 ENDPROC
  820 DEFPROCforward
  830 P%=FNrnd(0)
  840 FORL%=0TO15
  850 FORW%=1TOD%(D%
)
  860 NEXT
  870 VDU19,L%,P%;0;
  880 C%=C%(L%)
  890 C%(L%)=P%
  900 P%=C%
  910 NEXT
  920 ENDPROC
  930 DEFPROCreverse
  940 P%=FNrnd(15)
  950 FORL%=15TO0STE
P-1
  960 FORW%=1TOD%(D%
)
  970 NEXT
  980 VDU19,L%,P%;0;
  990 C%=C%(L%)
 1000 C%(L%)=P%
 1010 P%=C%
 1020 NEXT
 1030 ENDPROC
 1040 DEFFNrnd(C%)
 1050 R%=(RND AND 3)
*(RND AND 1)
 1060 IFR%=3 THENR%=
4
 1070 =C%(C%) EOR R%
 1080 DEFPROCblack
 1090 FORL%=0TO15
 1100 FORW%=1TO200
 1110 NEXT
 1120 VDU19,L%,0;0;
 1130 C%(L%)=0
 1140 NEXT
 1150 FORW%=1TO2000
 1160 NEXT
 1170 ENDPROC
```

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· PROFESSIONAL · CAD · FOR · PROFESSIONAL · RESULTS ·

New Robo Bitstik 2 tunes in to the BBC...

At last a full Computer Aided Drafting System for your BBC Model B Micro.

Introducing Bitstik 2, the first system to bring sophisticated CAD techniques to the desk of the BBC Model B user.

Bitstik 2 is the affordable solution to your technical drafting problems. Designed to take full advantage of your BBC's powerful graphics facility, the system is easy to learn and fast to operate.

Bitstik 2 incorporates a range of impressive functions, clearly displayed on-screen as Menus and Palettes. These are selected via the Bitstik hand controller, which also controls the dynamic 'rubber-banded' drawing cursors.

Among the system's impressive list of capabilities are:

- ▶ Auto Dimensioning
- ▶ Adjustable Curves
- ▶ Precision Grids & Angle Locks
- ▶ Powerful Zoom And Pan
- ▶ Scale Drawing & Text
- ▶ Graphic Library Index

These advanced features represent a significant step forward from the existing and very successful Bitstik Graphics System. Yet Bitstik 1 users can obtain Bitstik 2 at a Special Upgrade Price.

Bitstik 2 is produced in the UK by Robocom, the people behind the best-selling Robosystem family of CAD packages for the Apple II (+ or e) micro. To run Bitstik 2 you will need a BBC Model B with 6502 Secondary Processor, Twin Disk Drives and colour or monochrome monitor. Quality hard copy can be produced from a wide range of supported plotters.

So whether you need to produce complex architectural plans, detailed circuit diagrams or teach CAD on a fully implemented CAD set-up (with scope for advanced project work) you ought to be tuning into Bitstik 2 for your BBC...

Hotline Support
With Robo, advice doesn't stop when you've purchased a system. A small yearly subscription ensures that lifting your phone puts you in touch with expert help on any problem.

Test draw a Bitstik
See how the Bitstik can make your drafting projects easier. Just try it out, with no obligation to buy. Ask your local Robocad Centre for details of our free Test Draw a Bitstik Offer.
DIAL 100 AND ASK THE OPERATOR FOR FREEPHONE ROBO. WE'LL PUT YOU IN TOUCH WITH YOUR LOCAL ROBOCAD CENTRE.

SEE US ON STAND 133 ON THE BALCONY ABOVE ACORN

ROBO SYSTEMS

Robocom Limited, Clifton House, Clifton Terrace, London N4 3TB. Telephone 01-263 8585/272 8417. Telex 297137 ROBO G