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A 16-page pull-out guide to the first Commodore Horizons Show, including a full list of exhibitors, a floor plan, and details on how to get to the new venue — the TECH WORLD CENTRE, 9 Apple Way, Shepherd's Bush, London W12. Be there on Saturday and Sunday, 28th-29th October, for the Year's best computer show!

Editorial

THIS MONTH'S editorial is about things which aren't where you expect them to be. Lots of people expected the Amiga to be an Commodore's stand at the PCW Show, but instead it was in the Royal Kensington Hotel up the road. More on that in our PCW Show report on page 7. Many of you will be expecting the Commodore Horizons Show to take place in the Novotel, but, due to contractual problems, the venue has been changed.

The new venue is the **TECH WEST CENTRE**, Wimpole Way, Shepherd's Bush, London W12. Tech West is a new exhibition facility in easy reach of Tannem Green tube, Acton Central bus station, and Underhill Road. There are also car parking facilities on site. Ticket prices, at £1 for adults and £1 for under sixpence (£2 and £1 in advance) remain the same, as do the times and dates, from 10am-6pm October 28th and 29th (Saturday and Sunday). All existing tickets and travel bookings will be valid.

There will be a free bus service between the Novotel, Shepherd's Bush tube, and TECH WEST for anyone who turns up at the wrong venue. For any further enquiries about the Show, contact Commodore Horizons on 01-871 6343 or Howard Heath at Edlinborough, 188 House, 467 High Road, Finchley, London N12, 01-468 6166.

Next Month

Chrissy Prezziosi!

The Editor fills his stockings

Prizes Galore!

Hardware and software to win

Plus

News, views and reviews

EDITOR Christopher Justice **PRODUCTION EDITOR** Barbara Hajek **EDITORIAL SECRETARY** Cavelline Smyth **C64/CPM ADVERTISEMENT MANAGER** David Lutz **ADVERTISING MANAGER** Simon Langston **MANAGING EDITOR** Beverley Gore **PUBLISHING DIRECTOR** Duncan Scott **TELEPHONE** (ALL DRYTNS 01-477 4543) **FLEX** 286279 **SUBSCRIPTION ADDRESS** Commodore Horizons, 12-13 Little Newport Street, London WC1H 7PP **US ADDRESS** Commodore Horizons, c/o Business Press Inc, 200 East 42nd Street, New York, NY 10017 **SUBSCRIPTIONS** UK £10.00 for 12 issues, overseas surface (including US and Canada) \$16.00 for 12 issues, US and Canada airmail US\$19.95 for 12 issues.

Commodore Horizons is published monthly by Best Press Ltd. Typeset by In-Press Ltd, 15-17 Gillingham Green, London EC1. Printed by Grosvenor Hamilton Ltd, Southend-on-Sea, Essex. Distributed by HBI Distribution, 14-18 Trinity Gardens, London W9P, telephone 01-274 8411, telex 26160, Commodore Books 091.

ABC

SUBMITTING ARTICLES Commodore Horizons invites readers' contributions, either program listings or articles. Articles should be typed, double spaced with a wide margin. Where possible programs should be submitted on cassette or disk with a printout on plain white paper. Please keep a copy of your submission — do not send your only copy. Please enclose an S.A.E. if you wish your submission to be returned. All submissions must be your own original work.

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Polish logic

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I can seem to notprecise need beautiful newcdrom from Poland, I will to very happy if you will published my letter in Commodore Horizons.

RAWIBOZ JAWOZ,
skrytka 12,
70-400 Jaszczew 2,
Poland.

A COMMERCIAL ad? What do the Poles know that they're not telling us?

Unlock the 64

I THOUGHT I'd let you know my method for recovering control of your 64 after a keyboard lock up. Firstly press the "shift" key and "CTRL" key together. The screen should flash between the two modes very rapidly. Next press the "shift lock" key, and then press

down as many keys as possible with the palms of both hands until the screen displays "loading" and "press play on tape". Press play, and then break out of the load with the "reset" key. It might not be very elegant, but it works! (Well, it does on my 64 anyway.)
S. Ambury,
Jantowice-Trosz,
Suffol.

Horizons weakly

COULD YOU please tell me, why Commodore Horizons is published only once every month. I am sure there are many of your readers, like myself, who would like to read such a great magazine perhaps every fortnight.

Gratiano Akat
New Haven
Herts

THANKS FOR the complimentary. We'd love to publish every week, but our servers wouldn't stand the pace. The one national sister publication, *Popular Computing Weekly*, which has plenty for the Commodore owner and should keep you amused while you're waiting for the next Commodore Business.

Auto-run defeated?

YOUR ARTICLE about Paging I liked very much. I managed to make an ANTI-AUTO-RUN program which is printed here. It'll work with most A-R programs. To use it, first load the A-R program and run it. Then load the auto-running program. Instead of running, the BASIC part of the program will fire.

100 print "wait - - - time."
110 for s = 49998 to 49150
120 goto 100
130 next s
140 goto = 21944 to 41503

150 print print 10
160 next s
170 print 10 print 10
180 print 10
190
200 print 49999,49201,49142001,2
210 print 200
220 print 49999,4942011,1500
230 print "finished"
240 end
Michael Peters,
Marsden,
Belgium.

WE HAVEN'T checked it out ourselves — but we'll take your word for it, Michael!

Cheatmode Superbase

HERE ARE a few useful game tips for the 64. **Revenge of the Mutant Camels.** Whilst in play, press control and type GOANTS. Now if you fall again or knockout the next screen will appear.

Zoom: When the screen came up type 8482 this should make you invisible to the remaining attack waves.

Footy Pages: While on the title page, hit a number key to change levels.
Richard Benson
Ellenbury Parc, Cheshire

IN THE October feature on Plus/4 software you made no mention of Superbase, which has been reviewed as the leading database on the 64 and runs in its upgraded form on the Plus/1. The price of Superbase on the Plus/4 and 64 is being reduced to £79.95 from 1st October 1985. Please let both your readers and John Cochrane know that Superbase is available on the Plus/4.
Nigel Lewis-Turner
Precision Software



Betting on the 64

BETTING FANS will be pleased to see the release of two Collins books which explain how to use your 64 to improve your performance.

Football Facts with the Commodore 64, and Horse Racing with the Commodore 64, are both by Frank George, co-head of the Department of Cybernetics at Brunel University. Each book costs £7.95, and uses flow charts and simple BASIC programs to apply principles of statistics and probability to the problems of picking winners.

The author has adapted programs produced on mainframe computers especially for the book, and the programs are available separately on cassette or disk. For more details contact Collins Books, 3 Grosvenor Street, London W1A 3AA, 01-491 1070.



Frank George puts his bets on the 64

Ariola signs Minter

IN A SURPRISE announcement shortly after the PCW Show, Ariola's top distributors of American games

October 19th, and on cassette at £1.95 from October 26th. Banaya consists of six sub-games, each based on favourite

remaining subgames are *Brick Blast* and *Clippo on the Run*, featuring the creature from *Arctipod*.

Previewed at the PCW Show, Banaya has already drawn interest from public and dealers alike. Ariola's MD Ashley Gray said of the marketing agreement, "We are delighted to be working closely with one of the UK's leading software houses."



My young Minter — now into my destiny

titles, revealed details of a marketing deal with Jeff Minter's Llamasoft.

The agreement means that selected Llamasoft titles will be packaged, advertised and marketed by AriolaSoft. The first such title will be the recently completed *Banaya*, which will be available on disk for the 64 at £12.95 from

Minter's other, *Hallucination* bundles features arcade action with a fast-moving joystick. *AM: II* is a follow-up to *Attack of the Mutant Camels: Sotero II* is a version of the program published in the October issue of *Commodore Horizons*; there's a "Panic" routine which is a subset of the light synthesiser *Psychodelia*, and the



Jeff Minter has been approached many times in the past to write games for other software houses, but up till now has declined. The AriolaSoft agreement leaves him free to continue producing games on the Llamasoft label, while providing what one industry source called "an unprecedentedly large" financial reward for lending his name to AriolaSoft.

Horizons Show on in TECH WEST

THE COMMODORE Horizons Show in October is going ahead, but with a change in venue. Due to various contractual problems, the Show will no longer be held at the Norwest, Manchester. The new venue is the TECH WEST CENTRE, Warple Way, Shepherd's Bush, London W12.

As planned, the Show will be held on Saturday 26th and Sunday 27th October, from 10am to 6pm. Tickets already purchased will be valid, and ticket prices remain the same, £5 for adults, £2 for under 16s on the door, £2 and £1 in advance. All ticket holders will be sent details of the change in venue, and in case anyone turns up at the Norwest, there will be a free bus service from the Norwest to TECH WEST and back.

For any further details about the Show, you should now contact Howard Heath, Exhibitions Ltd, HR House, 447 High Road, Finchley, London N12 6NF, 01-446 6596. TECH WEST is a new development with excellent facilities, situated in Warple Way off Edgware Road. The nearest British Rail station is Acton Central, the nearest tube, Turnham Green. There are car parking facilities on site.

Exhibitors confirmed at the time of going to press include Amiga, Argus Press, Epoch/Micro, Flag Link, Galsonics, KPCAC, Llamasoft, Mammoth, Microdeal, Precision, Robocom, Trojan, Valcon Electronics, and many more. See the Show Guide in this issue for full details.

Commodore
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SHOW

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Prolog on the way

ONE OF THE most powerful programming languages yet developed, Micro Prolog, is to be available on the 84 Logic Programming Associates, best known for work in artificial intelligence and MS-DOS software, has developed a version of Prolog for 802-based machines including the 84.

LPA's Keith Clarke and Frank McCabe plan to launch the package on September 1st at £66.50 plus VAT. The package comes complete with a ring-bound manual and a copy of the book *Learning Prolog: Solving with Prolog*.

Prolog, the language adopted for the Japanese 5th generation mainframes, is designed to use facts and rules to solve problems in a logical way. The LPA version is claimed to be a complete implementation.

For more details contact LPA, Studio 4, Royal Victoria Pavillion Building, London SW18 1SX, 01-871 2646.

128 delay — C16 to go?

COMMODORE'S C128 has been delayed, and speculation as to the fate of the C16 and Plus/4 has increased. Following the PCW Show, where public reaction to the new machines from Commodore, Atari and Aminal enabled the marketing men to judge the state of the industry, the C128 launch has been delayed until the end of September so that a cheaper disk drive can be developed.

The new disk drive, the 1570, is a single-head high speed unit, designed to complement the more expensive double-head 1571. The 1570 will sell at £199, as opposed to the 1571's £299. This means that the C128/1570 combination will sell for £468, £70 more than the price for the Amstrad 4128, which also includes a colour monitor.

Meanwhile, speculation mounts that the C16 and Plus/4 have had their day. At a PCW Show which saw very little in the way of new software for the

machines, Commodore's marketing and sales manager Paul Welch was quoted as saying "I don't think there will be any Plus/4's or C16's

Thomas TV's Database programme that "The C16 and Plus/4 are alive and kicking — we're just concentrating on the C128 this year."



available after Christmas — by then we will have built out all our remaining component stocks." This confirms doubts over the C16 and Plus/4 prompted by widespread High Street discounting and price software support, but contradicts Pink Berry's statement on

Chain stores such as Direct's and Lucky's are offering attractive deals on the Plus/4 at the moment; Plus/4, datasets, joystick and software run-pack for £99, or Plus/4, 1551 flat disk drive, MPS800 printer and business software package for £299.

PCW Show: promises, promises!

Chris Jenkins looks at the Olympia show which, despite an excellent audience, featured lots of previews but little in the way of products

THE PERSONAL Computer World Show, held at London's Olympia from September 4-6th, was more remarkable for what wasn't there than for what was. The gratifying large crowds — estimated as high as 70,000 — backed in to see the C128, the Atari 5095, and the new machines from Amstrad, but the big talking point was Commodore's Amiga, which was notably absent from the Commodore stand.

The show — divided into a business section in Olympia 2, and a home section in the National Hall — was packed with novelties including Rambo lookalikes, video-clips, dancers, music shows and, inevitably, hundreds of computers.

Commodore's stand included a good dozen C128's, running 64 software and CP/M programs. But there was no sign of the 124D, the version with a built-in disk drive, though the machine is said to be on schedule for a possible release at

Christmas. Price will be around £260, according to Commodore's sales and marketing manager Paul Welch.

The C128 proved great interest from purchasers,



purchasers, kept to computer to Amstrad's 128ST and Aminal's CPC602 and PCW526. Apart from running existing 64 software such

as Melbourne House's *Way of the Exploding Fox*, the C128 was seen

running the program *Mars Club*. 64's were lined up to

Compaq, and, in one of the most interesting previews of the show, running Music Sales' latest products. These include the *Sound Sampler*, with the latest music from Mac-style software. The Sampler can digitise and copy sounds at a wide range of pitches, create echo and harmonising effects, and produce waveform plots. It's MIDI compatible, and is due in the shops before Christmas. Also on the way from Music Sales is an *FM Voice Module* for the 64, which, at £99, gives the same sort of musical effects as a £700 synthesiser such as Yamaha's 02G1. The realistic sounds are eight-note polyphonic, can be split into different sounds at different ends of the keyboard, and can be accompanied by a range of automatic rhythms and riffs. The sounds are preset, but sound editing software is also on the way. The next program will be a sequencer package for the MIDI-compatible FM module. Demonstrator Richard Watts

also showed a four-octave full-size music keyboard, to be priced at \$89, though the FM module can also be played with the £29 Music Maker keyboard.

Commodore's biggest draw, the Amiga, was absent from the main stand — perhaps because it would have overshadowed the C128, and is, in any case, not due until next year. Trade and press visitors were shown the machine both in Microsoft's hospitable suite, and in an official Commodore demonstration tent in the Royal Kensington Hotel.

Amiga

Here, Commodore's Gail Wellington and Chris Kaley put the machine through its paces and answered technical and marketing queries. Demonstrations included hi-res graphics displays of almost photographic quality; music tracking; IBM software emulation (with the promise of an inexpensive add-on to provide real high-speed emulation shortly); sound sampling; synthesized music; animation; video interfacing (superimposing computer images over signals from a video-camera); mouse control and command line interface; and so forth. A videotape of the American launch included demonstrations of the Amiga playing accompaniment for a saxophone, speaking, displaying animated graphics of a ballerina, and more. The assembled cognoscenti were "well blown away", in the words of one journalist.

On the software side, the PCW Show was more a case of the PCW preview: very few



With one finished game in store, Gail (left) is about to go for the early display crowd . . .

products were finished, though many were promised.

AmigaSoft's game videography dominated the gallery, and their latest releases *Kastrika*, *Nautilus*,



Commodore's PCW Show stand drew excited crowds to see the C128

De Cooop and *Racing Destruction* set were playing. The company is diversifying into utility programs, and forthcoming products include *PaperUp*, the popular word processor from Ballistic included, and a range of database, business graphics and interfacing products.

US Gold previewed an enormous range of titles including *The Goonies*, based on the forthcoming Steven Spielberg film, *Donald Duck*, *Kernal*, *Zorro*, *The FBI*, and *Desert Fox*.

Doran showed clips from the film *Rambo*, but of the game there was no sign.

Melbourne House's Lord of the Rings was similarly there in film form only.

Activision's Activision titles were up and running, and some Winter games were previewed, including *After Burn*, a "3D simulation" game, and *Fast Tracks*, a slot car racing program, congratulations to Activision's gorgeous Clara Tetter, who took the Saturday off to get married . . .

Amig presented a business package and computer for the 64, and a range of peripherals including a mouse, a disk center, and a range of disk covers.

Argus Specialize Press announced the closure of six of their computing magazines, and on a brighter note their Software wing showed a new game from QuikSoft, *SchlockSteak*.

Bevsoft previewed *Outgun Fozes*, a sequel to *ShadowFly* including more sophisticated animation and music, and *Snapman*, the game of the film of the



Novogon's novices . . .

comic book.

Doran's presented the £25,000 prize for solving *Enigma*, and previewed the 64 version of *Centaurus M&I*.

Wirednet showed the Telecom version of *MRU*, and demonstrated the *Island Logic Music System* for the 64, which Wirednet has just licensed. The 64 versions of *Ultimate's Palace Wolf* and *Unbreakable* were also shown.

ClareSoft, with our eyes cast Jeff Minter, put on the usual welcome display, featuring the latest 64 title *Bambos*. This multi-phase extravaganza defies description in such a short space, so we'll save it for later . . .

Merlok previewed *Zelda*, *Gruff Gaffer Superwoman Challenge*, and *Crash Comics*.

Novogon's *Mercenary*, the long-awaited follow-up to *Encounter*, failed to appear again . . .

Doran's learning department



and GDFP's sound of music

had a field day, with clips of *Bambos*, *Transformers*, *Knight Rider* and so forth, but no actual games . . .

Orpheus previewed *The Young Ones*, *Tajad*, *Electro-sound 64* and *CAD 64*.

And on the business software front, *Proclaim* launched the C128 versions of *Superwrite* and *Superbase*.

New Commodore peripherals were remarkably thin on the ground, with only *Baboon's* revolutionary Turbo cartridge offering any excitement. There wasn't even any decent joystick . . .

On the whole, the PCW Show itself was a success. So far as Commodore and Commodore's mere contacts were concerned, *Amiga* and *Amiga* tended to overshadow the glory, if the Amiga had been on public show, the story might have been different — but the wonder machine will have its day soon.

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1	1-1 Formula 1 Simulator	Mastertronic	£1.99
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1	Vegas Jackpot	Mastertronic	£1.99
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1	021 PBP	Mastertronic	£1.99
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1	Psycho Shopper	Mastertronic	£1.99
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3	Laser Zone	Utopiasoft	£5.95

Data compiled by Gallup from a panel of specialists and chain stores, for the month ending September 28.

Mole in a hole

Aaaaaaaa! Not yet another *Money Made* battles-and-platforms effort? Well, it is, but there are a few mitigating factors which make *Money on the Run* a little more enjoyable. Firstly, there's an astonishing made score. I've already taped

it and play it continually on my Walkman — there's an intro theme, main game theme, an end title, and variations throughout the game including a boss theme VFF which will get your feet tapping. All this is done in what sounds like much more than three part harmony: absolutely incredible.

As for the game — well, what can you say? If you like this sort of thing, you'll find the usual runabouters, wobbly animals,



poofs of acid, hidden treasures, sideways, ropes, and so on and so forth. If this isn't your sort of thing, or if you get fed up of

Wanted, Money Made or *Money is Interest*, you won't find much that's new or exciting as *Money* demonstrates his way through this latest adventure. But then again...

Program: Money on the Run, 84
Supplier: Gamma Graphics
Price: £8.95

Graphics: ★★★★★
Sound: ★★★★★
Gameplay: ★★★★★

Blood and guts

Originally, and perhaps more graphically, entitled *Death or Glory*, *Who Dares Wins* looks like *Aligora's* best effort for some time.

The pre-production copy we reviewed was full of excitement despite being obviously unfinished. *Who Dares Wins* resembles the arcade game *Commando*, though it's by no means a copy. The screen scrolls downwards, showing a landscape of bushes, emplacements, pillboxes and fortresses, which you as the lone hero, must



overcome. Your little man can move, shoot and throw grenades in eight directions, as can the opposition. The graphics and

animation are in a nice "cartoon" style, and the backgrounds quite well detailed.

As you shoot your way through the scene, boxes of

grenades can be found if you look around carefully. Without the grenades it's hard to obliterate some of the defences, who are dug into various trenches and emplacements. There are also mines and bazookas to use your progress.

As each level is finished there's an enormous fire-fight to get through the gate to the next one.

Great Fun — I look forward to seeing the finished version.

Program: Who Dares Wins, 64
Supplier: Aligora
Price: £7.95

Graphics: ★★★★★
Sound: ★★★★★
Gameplay: ★★★★★

Wobbly bits

Tony Crowder's latest effort — "Loon-4", as some wits would have it — is in fact more of an "arcade adventure" than any of his previous shoot-'em-up programs. Unfortunately, arcade adventures don't seem to be Tony's forte. About the



only imaginative part of *William Wobbler* is the

spontaneous hero, a sort of elongated ET with a head which seems to move independently of his body.

As *William* makes his way around a series of underground caverns, he has to duck or leap to avoid flying frogs and wriggling snakes. There, and other hazards such as lakes and razor blades, can make him lose his head in spectacular fashion.

There are ten clues to find, and collecting them all will give you a solution, which can be

stored on a disk (provided with the disk or cassette versions of the game) and submitted for the £1000 competition. What's the prize? Tony isn't saying. Not much cop, I'm afraid.

Program: William Wobbler, 64
Supplier: Wizard
Price: £12.99 case, £14.95 disk

Graphics: ★★★★★
Sound: ★★★★★
Gameplay: ★★★★★

higher in the points table they rank, the harder they are to beat. So far I've spent more time examining the games than anything else, but I'm working on it. Excellent fun — the "Expanding Fun" of boxing simulations.

Program: Barry McQuigan's World Championship Boxing, 64
Supplier: Activision
Price: £9.99

Graphics: ★★★★★
Sound: ★★★★★
Gameplay: ★★★★★

Fezagood boybarry

I'm pretty fed up with sports simulations generally, and especially those coloured by previous experience, but I loved myself to play Barry McQuigan's *World Championship Boxing*, and gratefully admit that I liked it.

Apart from the fact that it's a good fight simulation, it also adds the elements of training and fighter characteristics which

lead an extra dimension to the game.

There are five styles of boxing to contend with: slugs, sloggers, bullpups, and so-on. In choosing your opponent from the range available, you can tailor your training program to build your stamina, agility and strength as appropriate. In the fight sequence, your punches and defences are controlled with the joystick, and your remaining energy is indicated at the side of the screen. The sound effects and crowd reactions are excellent, and the

deal of a solid blow is very satisfying. Points are racked up once time you hit your



opponent, but punching wildly will sap your own strength. There are sixteen boxes to take on, and obviously the

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ROBCOM

Turbo Series

Kicked into touch

I don't see the point in this game. For a start, Commodore has sold so many copies of *International Soccer* that I can't believe there's any more market for a football simulation. Secondly, *World Cup 2* doesn't even try to make an improvement on the standard set by *International Soccer*, apart from having an

imitating those fans which is better enjoyed by switching it off.

The players, blue and yellow



you can't change the skin colour represent any of twenty or so teams competing in the

World Cup. One player can take on the computer, or you can play with up to eight human beings.

The graphics and animation are OK but so more, and the movement logic for the players isn't up to much at all — half the time, they just stand there as if it was half-time and they're already sucking their lemons. Control is of the player nearest to the ball, and their colour changes to indicate possession (familarly The FIRE button serves to pass or shoot, change

the player controlled, or make the goalkeeper dive. There are automatic free-kicks, goal kicks, and so on.

A peculiar game to release at this stage — something original next time, Airtel?

Program: *World Cup 2*, 64

Supplier: Airtel

Price: 16.95

Graphics: ★★★★★

Sound: ★★★★★

Gameplay: ★★★★★

Plant life

As always, are understandably relevant to push the merits of their CIB titles — claiming that they are "as much an advance in software terms as the CIB was over the 64 is hard-

ware". Still, with Commodore on the verge of killing the CIB it's marvellous to see anything coming out for the poor little mice.

Kakemon can claim, if nothing else, the month's most bizarre scenario: a horde of giant wasps is attacking a desert oasis, and only you can stop them. Your little man moves through underground tunnels, surviving to



shoot at the wasps and larger, more dangerous enemies. Additional dangers include

moles and wasp droppings (both), and on least scores are averaged beyond.

The product of a deranged mind. Approach with caution.

Program: *Kakemon*, CIB

Supplier: Analeptic

Price: 14.50

Graphics: ★★★

Sound: ★★★★★

Gameplay: ★★★★★

Karate killers

Fine graphics and a brilliant filmic storyline and sound-track make *Karateka* a remarkable game. Though the beautiful beam graphics no longer look as outstanding as they did when the game came out in the States, they're still very striking. You play a karate-chopping hero, who sets out to rescue his beloved from the clasp of an evil wizard. The combat with progressively tougher enemies are punctuated with cartoon-like sequences showing the weeping princess

and the wizard wailed. The combat sequences are



starting as you use the joystick to choose high, middle or low

choops or kicks. A bar chart at the bottom of the screen shows

your remaining strength. Comparisons with *Way of*

the *Exploding Fist* are inevitable. Well, *Karateka's* graphics are better, but there are fewer possible moves and the play is slower. *Karateka* has a wider range of problems to solve: a vicious hawk, a dangerous partygirl, an impenetrable portal, and so on. The karate version suffers from having to be relocated after each game. Otherwise, *Karateka* is well worth playing. Run out and get it cheap-cheap.

Program: *Karateka*, 64

Supplier: Aristonsoft

Price: 19.95

Graphics: ★★★★★

Sound: ★★★★★

Gameplay: ★★★★★

D.I.Y. monster kit

More jolly violent fun than *Arkanoid* is the three of a dot-matrix monster kit. *Mail Order Monsters* allows you to create a fighting monster, then pit it against the creations of another player, or the computer, in a battle to the death.

The whole program is joystick-driven. You start by selecting a basic "morph" —



transformations, linebars, hexamoids, or whatever — each of which are charmingly

illustrated on the display. You can then allocate features such as strength, intelligence, speed, and stamina, and equip your monster with weapons.

There are several battle options, you can fight an opponent face-to-face, battle to collect flags which are guarded by hostile monsters, or collaborate against a horde of enemies. In each case the battle takes place in a disappointingly plain landscape, magnified from part of the battle map when opposing monsters collide. Combat is

controlled by selecting weapons and defence options from a menu as you fight.

Nice idea, a little let down by the combat screen — couldn't we have had giant sprites in a *Exploding Fist* fighting in a more realistic way?

Program: *Mail Order Monsters*, 64

Supplier: Aristonsoft

Price: 19.95

Graphics: ★★★★★

Sound: ★★★★★

Gameplay: ★★★★★

Mage in a maze

Some time ago there was a Spectrum game called *Mir Maz*, by Ultimate. At the time Ultimate was thought to have supernatural powers, because the quality of their graphics and the complexity of the programming were extraordinary.

I don't think *Bubble Box* will be too upset if I compare

Wizard's Lair to *Mir Maz*, because it's almost as if



complexity — and in any case, the game is so similar that the comparison is unavoidable.

You control the bubbly hero, *Patrick Pato*, around a labyrinth of caves, seen from above. The action is fast and the design of the cave and its obstacles more detailed.

There are keys and spells to be collected, which help *Pato* to get through otherwise impassable doors, and various weapons which help to ward off the ghouls.

There are also lifts, tunnels and passages which enable *Pato*

to move from one level to another in his search for the five pieces of the *Golden Lion*, without which he can never escape from the *Wizard's Lair*.

Good fun, though not remarkable.

Program: *Wizard's Lair*, 64 Suppliers: *Bubble Box* Price: £7.99

Graphics: ★★★★★

Sound: ★★★★★

Concept: ★★★★★

Paranoid android

A excellent bit of programming doesn't automatically produce an excellent game, and I think this bit of folk wisdom is well illustrated by *Paranoid*.

You control a robot, reprogrammed once a specialist full of wayward androids. Your job is to destroy them all and release the crew from the bridge where they're imprisoned. Since your energy supplies are limited, you must transfer control from one droid to another if you are to complete your mission. This

you do by putting your droid into Transfer mode (moving

next droid you find. Once you do this, a fast



the joystick and pressing the fire button) then bumping into the

screen describing the droid you're taking over appears, and

you have to solve a quick-moving pattern-matching puzzle to transfer control before your droids blow out.

Extra features include maps of the maze, hints to capture specific droids, various status reports and excellent sound effects. Like *Wizard's Lair*, the great strength of *Paranoid* is in its excellent graphics; once you try to play the game, it becomes a little repetitive. Still, worth checking out.

Program: *Paranoid*, 64 Suppliers: *Howson* Price: £7.99

Graphics: ★★★★★

Sound: ★★★★★

Concept: ★★★★★

Steve snookered

It seems late in the day to *Steve* but with another snooker simulation, and I'm not sure of the endorsement of Steve "Interesting" Davis will be enough to make *CDS's* game stand out. Well, it is a well-programmed effort, controlled by joystick or keys through a series of screens.

The opening screen enables you to select the player options,



change the screen colour, call up the help screen, select single shot

option or start the game.

Direction and force of your shot are determined by using a bar graph, placing a target area and adjusting a "spin" indicator. Once you hit the white, balls fly everywhere, accompanied by unrealistic crashing noises. Movement seems to be accurate so far as angles are concerned, but velocity is dodgy — sometimes the balls take far too long to come to rest. There's an exit

facility which lets you set up the screen however you want to practice shots, and a number of skill levels.

On the whole, very... interesting.

Program: *Steve Davis' Snooker*, 64

Suppliers: *CDS*

Price: £8.99

Graphics: ★★★★★

Sound: ★★★★★

Concept: ★★★★★

The Max Factor

US Gold's latest heads-down (no-sometimes-it-indulges-about-ten-up) is excellent fun, though requiring very little in the way of strategy or planning.

Blue Max 2001 is what is this suggests, a fantastic follow-up to the first *World War epic Blue Max*. In this latest incarnation, programmed by Bob Paine of *Isywalk*, you pilot

a powerful saucerplane across a hostile landscape. The screen scrolls from top left to bottom right, and your ship can move up and down, and in eight directions. You can also fire in eight directions, and, at the right altitude, drop bombs on the targets below.

Fast-moving alien fighters of various shapes slip around the screen trying to zap you. While fighting them off, you must keep an eye on your fuel gauge, altitude display and bomb supply. You have a force shield

which unfortunately uses up lots of energy, and only forty bombs in which to knock out as many of the exotic alien buildings as



possible. At the end of every stage there's a runway on which you can land to refuel and re-

arm, though you must beware of ground attacks. There are various play options including skill level, gravity on/off, type of control and so on.

Not bad at all: a sort of cross between *Navios*, *Ransom* and *Future Patrol*, with decent music and sound effects.

Program: *Blue Max 2001*, 64 Suppliers: *US Gold* Price: £9.99

Graphics: ★★★★★

Sound: ★★★★★

Concept: ★★★★★

MINTER MANIA

Jeff sounds off about the awesome Amiga, ponders on video violence and picks some of his favourite new games

THIS YEAR'S NEW Show was a very significant one for me, for a variety of reasons. The main reason will be of interest to all Commodoreans, and it all started on the very first morning, while I was still getting my systems spun up and started churning. They led me off down to a private booth just down the hall. It looked fairly boring from the outside, but a single sign "Miscellaneous Demonstration Suite" on the door. I disappeared inside and emerged about an hour later with my mind completely, utterly and irrevocably BLOWN.

Amigamania

What was behind that unassuming door was Commodore's new AMIGA computer. Despite all the rave reviews that the system's been getting, I had been reserving my judgement — 'I'll believe it when I see it' was my attitude . . . Well I saw it and WOW! I believe it!

Having been programming the Atari ST for a while now, I'm used to 80000-based systems, and I figured the Amiga to be every bit. AMIGA, however, makes the ST look like a 700 in 34.0M mode. AMIGA draws fully-filled polygons, has many colours, plot pixels, AMIGA runs lots of different programs at the same time, it can draw in 6000 colours. From the files, where most systems can only display monochrome, the AMIGA displays 16 colours at a resolution of 640x400.

The AMIGA's outstanding performance comes from the support that the 68000 receives from three custom chips which were designed, incidentally, by the same guy who designed the ANTIC chip in the Atari 800. These chips handle stuff like the BITMAP for bit image manipulation, the sprites, the sound and the DMA. The system has eight sprites (theoretically). The actual limit is dependent upon the vertical positioning of your sprite objects, but suffice to say that it's easy to get more than eight sprites if you want them. Chances are, thanks to BOB, you won't even need them . . . BOB? Ah, well y'eah, there are three things called BOBs. BitMap Objects I think that means, and they behave like sprites, except that they're not, they're bitmapped objects controlled by the system. (Williams Defender machines use similar "bitmap objects" for the aliens etc.) To use any of your sprite franks figure that this method might be a bit slow, consider this, in a demo called Robot City, several robots and a dog walk around the streets of a 32-colour video city. You can pick up the picture with the mouse, and move it up and down the screen, and the animation doesn't stop . . .

AMIGA should be well-supplied with games, too. At the back-back Commodore Official Demo (given down the road from the show at the Royal Kensington Hotel), I find a partially-completed Flight Simulator.

There was none of the 'junkies' usually associated with small-computer simulators, everything was very smooth, the graphics were solid and the jet noise very realistic — perhaps because the noise was sampled for AMIGA by recording a REAL jet at an airport! The play was excellent — there was none of the usual 'lag' between control-motions and display-updates which makes most simulators so difficult to fly.

As well as the Simulator, there are a number of titles already in development from Electronic Arts, including Marble and the Pinball Construction Set, and that brilliant arcade game Marble Madness. There is no reason why MSX should not be every bit as good as the AMIGA as it is in the arcade. AMIGA in the port of machines on which most arcade favourites, would be programmed BETTER than the originals. . . . Finished one working on a 3D space shooter called Starfighter which could well be a hit. FLITE y had with solid graphics, I shall be working with the machine too, I'm hoping to get one in the next three or four weeks, till keep you informed.

Perhaps the Amiga may be, but most people won't be able to afford it at the, one it's kinda expensive. Hopefully the truth will get through though. Usually does. But I don't know if all the 'mad' and there's still work going ahead stuff about for the old world . . . Commodore had some pretty nifty new sound hardware of their which certainly seemed to level up the 'top-quality' . . . the latest LaserDisc game called (I think) *Kentucky Bill* was in the same room, running on an Atari and will doubtless make its way over to the '64 . . . quite a few '64 titles were in evidence . . . Supersoft had a rather spiffy sound sampling device which can be linked to MIDI, and which I invested in . . . at least AmigaSoft had the MEGALAMB video system and I got to do *Batavia* and *Colossus* on it! (Don't) that was really nice . . .

System 3 seems displaying results of their much-touted new King's Game, but they WERE displaying some very vivid females with wings and chains! I wish the art was better. Most of the ground floor was taken up by Atari, Amstrad and Commodore. Commodore had plenty of IT's around running stuff like *Expanding Hor.*

I'm pretty busy now, even though I've finished *Batavia*, I'm trying to get *Colossus* spun up on the Atari ST and bringing 80000 as it goes along. 80000 is definitely the machine-language to learn if you're planning to go 64-bit. It's the code behind the Mac, the Atari ST and the Amiga, and it's really nice to use. A bit like having 6502 with eight accumulators and eight index registers all of which are 16-bits long! The bases of the code are pretty easy to pick up if you've already been doing 6502. I found that after a couple of days to orient myself I could hack along fine. *Colossus* with a Mouse is great fun. I think games people will have a lot of fun

designing games to use Mouse control. There's one the 5-way directional limitation of a joystick, and you can get really fine control. Flying that Simulator on the Amiga using the mouse was really nice once you got used to the difference. Playing *Colossus*, it's possible to get a lot more expression into your display with the limitations of the joystick removed.

I shall be off on holiday this weekend, a nice chance to get my head together and start looking thoughts about my next '64 game come together. I find that I always design best when I'm on holiday. *Megabyte Llama* was designed in Portugal. *Bravura* at Creta. *Mama Llama* in Porto . . . must be the fact that I can dissipate my brain from the actual coding and render it receptive to new ideas. Or maybe they got better into me while by the sea, who knows??

Games in watch out for this month, or ones that have impressed me, are: *Necessary from Niagara* . . . I use the 3-D routine for this demo! Over a year ago on the Atari, and they were just waiting to design a game to use 'em in. I've now seen the nearly-completed game, and it's pretty carajie, you can blow up bridges and see them crumple to the ground, you can fly over a large city in first person-3D and even go inside ground for a 3000000 3D adventure! I also liked *Who Does Who*, from Alligata . . . just big complex, just a really fun thing to fly in a crazy line, but a satisfying 'shoot 'em up' with a nice spin handling of you can cope with the gratuitous violence. Now that I don't like a spot of video mayhem, it's just that I have slight misgivings about it when it's directed against like humans forms rather than the usual abstract and totally inertial ones. Even so, I loved *Way of the Exploding Hat* . . .

Frankie

Oh yea, what about all those movie-to-be that everyone's into now? It seems to me that when people do the licensing bit, more thought is given to all the fact they're going to make from the licensing deal, than to the actual design of the game (which is often fairly rudimentary). I still think that a game should still on the strength of its design rather than because it has a famous name . . . What, for example, am they going to do in the *Banana Game*? Will the objective be to bustle thousands of Commies or what? Any game based on *Banana* has just got to be extremely violent . . . Well, some people CAN do a right, the *Frankie* game would have stood alone as a decent game in its own right with or without the *Frankie* endorsement.

I shall finish now, but I'm shortly to be off down the pub, later. Hopefully I should soon be able to tell you more things about the Amiga once I get time and start learning how to fly the thing. Until then I can but dream! ■

D

OU AKE DRINKS, our master sorcerer, but a humble apprentice. For the task facing you is of such awesome magnitude that even the most experienced wizard would squall at the very prospect . . .

The Castle of Illusions, setting for The Edge's epic game *Wizardry*, is indeed a challenging prospect. Packed with battling powers, treacherous enemies and sinister traps, the Castle can only be penetrated with the help of a selection of spells and a strongly-willed wizard.

Based firmly in the world of *Dungeons and Dragons*, the role-playing fantasy in which magic and swordplay are your only weapons in a hostile world, *Wizardry* combines complex plotting with state-of-the-art graphics and music. Some comparisons are inevitable, particularly to *Ultima's Staff of Karnath* and *Emmarel*, but, if it's not hardy to say so, Simon Chapman's graphics for *Wizardry* look even better than the *Ultima* team's.

The screen display is in three major parts. To the bottom right is a list of the spells and objects which you have at your disposal. You can scroll through these using the 1 and 2 keys.

In the center are your status reports, Energy, Score, Hits and Wounds. The first two are self-explanatory. Energy goes up to 99, an 0 when it falls to 0, point — you're dead. Your energy can be replenished by using a Heal spell, but of course these are limited in number. Hits and Wounds indicate your reawakening process, by selecting



• At the first portal, you must gather your courage . . .

Sword on the scrolling mouse, pressing the fire button and wiggling the joystick, you can do battle with the snaky creepy-crawlies inhabiting the Castle — but some of them will be too strong for your sword alone.

To the bottom left of the screen is a display which can give you magical clues when you use the Tell Tale spell, or show you variations of maps which will help you on your way.

Taking up the rest of the screen is the playing area, shown in scrolling perspective with intricately designed scenery and some scarily imaginative sprites. The hero, Drives, is a small figure in a helmet and jerkin, who moves in four directions along the corridors and through the many chambers of the Castle under the control of your joystick.

The Castle is divided into several areas, each one of which is protected by a number of different ghoulish and one particularly nasty Guardian.

It isn't giving too much away to describe



WIZARDRY

Accompanied by the strains of chilling music, James Wareham ventures into the Castle of Illusions in The Edge's epic arcade adventure



• Does the magic altar contain helpful spells, or is it dangerous to your health?



the solutions to the first area, since the handbook gives them all in a "Don't Read This!" section for the easily perplexed. As Drives walks along the first corridor, he comes to a door which allows him through on pressing the CBM key. Proceeding along the next corridor, you'll come to a trumpet-looking box. Does it contain useful spells, which will be added to your arsenal, or is it harmful? Try it and see!

Further along the corridor you'll come to an impassable guardian, the fearsome Minoctaur, which will spook you mercilessly if you try to pass. Back to the start . . . Try taking a turn to the right, and

you'll find yourself in a chamber with a vicious scorpion and a skull on the wall. Try a Healall spell to invigorate the scorpion, and Tell Tale to reveal the secret of the room. You'll see a speaking mouth appearing above you, and a message . . . "Knock it on the head". Before you can solve this puzzle you must leave the chamber and face a member of honor. The Minoctaur pops up again,



• Fight off the spider in the skull room



GAME: Wizardry
MICRO: CBM 64
PRICE: £9.95
SUPPLIER: The Edge

position of a magic chest. The spell you'll find here will enable you to defeat the Minotaur once and for all, and penetrate the next area, where you'll encounter a whole new range of enemies, including a menacing phantom and a deadly thunderbolt.

All this frantic action is accompanied by a specially-written musical score which often gives you clues as to the dangers you face and the action you should take — for instance, one theme means that there's a scripton about, and warns you to line up a fireball or get ready for a bit of razzle-dazzle.

In search of the Prime Elemental, the ultimate object of your quest, you'll inevitably meet a sticky end many times.

Wizardry is as complex a series of puzzles as anything yet available for the 64.

Fans of "hardboiled" — arcade adventure games — will be entranced by the game. Even players who aren't normally attracted to this sort of program will be impressed by the graphics — brilliant both in design and execution — and the music, which for once plays an important part in the game rather than just serving as an irritating backdrop.

Moreover, Wizardry goes to prove that for all the flack of American imports, the Brits are still here when it comes to gameplay, matching the best graphics and music with imaginative plotting and fiendish complexity. ■



● *To reach the chest you'll have to defeat the death's-head*



● *Is the head on the wall your gateway to adventure?*



● *Wait for the light, with the Minotaur in her pursuit*



● *Killing the Minotaur sorts out your problems!*

another soldier bars your way, and a winged flying skull menaces you. Finally you'll find the hidden spell you're seeking — "Knock!" — and you must return to the skull chamber to use it by lining yourself up with the skull on the wall, selecting Knock from your spell list and pressing the Fire button. When completed, your jettin turns purple, a clue that you've achieved something significant!

Return to the farthest point you had reached, and you'll find a new door has opened, allowing you to penetrate further into the Castle. That's only an introduction to the complexities of Wizardry; remember the Minotaur which you failed to pass? In order to defeat it, you need to find a magic door to another part of the castle, walk over a cross in sight, and return the way you came. Right back at the doorway where you first entered the castle, a new entrance has opened.

The chamber it leads to contains the fierce Minotaur again — he certainly gets around! And somewhere, the spell you need to defeat it. Use the Find It spell — needed in several situations where a seemingly empty chamber hides a vital clue — and you'll reveal the



● *Find the second stage, and you face the phantom — only another enemy weren't it yet?*

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AS A COMMODOR APPRECIATE THESE



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To put the Triton Quick Drive through its paces we used an ordinary computer game - Jet Set Willy.

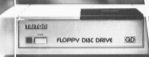
From tape it took 170 seconds to load.

When loaded from the Triton Quick Disk it took a mere seven seconds. That is 163 seconds less than the tape and certainly as quick as most disk drives on the market.

AS A WALLET APPRECIATE THESE



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Proof indeed that the Triton has all the capabilities of its more expensive rivals.

AS TEST DRIVEN BY THE EXPERTS

Now it may be, but the Triton Quick Disk is already receiving rave reviews in the computer press. For example, in a recent Home Computing Weekly article it picked up their much coveted 'Flipped' award.

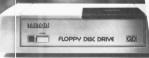
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And on the eighth day . . .

Ken Matthews saves the universe before breakfast (again), and tries to avoid becoming a tasty snack for The Rats

THIS MONTH I've so far done five new titles to look at, so without preamble — as with the job . . .

The first three titles aren't exactly new to the market, but it may well be the first you have heard of them, since Eighth Day Software don't run so glossy ads but specialise in producing quality adventures in a range of difficulty levels at a real street price of only £2.50 inc. VAT and postage!

Their beginners' game *Is (Nations Zero)* is centred around an international terrorist named Stirling who is holding New York to a billion dollar ransom. It appears that an all-out attack on the holder's polar hideout is doomed to failure but a single person might succeed — it's down to you!

Federation

The game itself is certainly of low difficulty but the underlying structure and logic is sound enough to get great enjoyment from completing the tasks despite one or two odd things you must do to a bird! There seems to be a good deal of sailing and flying to be done on the way to the various itself but this serves to give you the 'feel' of Eighth Day's games ready for the more difficult games like *Queen Tulla* . . .

This time the job is a little more awesome — just save the Universe! It seems that the Federation, at war with the evil Empire is losing ground, at speed and the time for a hero is great.

The game begins in the wreck of the flagship but there's certainly plenty to do in rescuing documents, destroying equipment and discovering a crater before you can advance to the final problems on an alien planet.

The third game, *Avie*, is certainly advanced when compared with the previous two. I would describe it as magical fantasy where you will meet the typical elves and cyclops. I found this adventure the most enjoyable of the three because of the use of characters to help and hinder and the necessity to think logically about how the odds and ends you discover are assembled into useful items. There are also a good number of magic wands to be discovered and used to get maximum score but you'll need to find the right place and time.

On the basis of the three adventures I've seen I'd be happy to recommend the Eighth Day series as well programmed, entertaining and worth a price that means they must be worth a try. You can obtain the games direct from Eighth Day Software, 18 Plas-

hill, Merston, Wilted, Newwyde, L46 7UH. Some of you will be pleased to know that they also provide him-thems in exchange for an SAE.

New from US Gold is their All-American Adventure series in *The Wizard and the Princess*. This is a rather old adventure previously available only as an import from the USA at a typically high price.

The object of the game is to rescue the fair Princess Pivella from the evil wizard Hades the Malivorian.



A new experience in adventure horror

Playing the game came at a great disappointment. The full colour graphics were most unimpressive, and looked to be of a standard most ten year olds would disdain.

Scorpion

Pictures aside the game itself was very poor and slow responding. Only two word commands are accepted and the early part of the game is simply a matter of mopping the area around the start to find a rock without a scorpion behind it to kill a snake. Then you can rapidly advance to the only real problem of the game — crossing a chasm to approach Hades's lair and the final depressing confrontation.

It is very sad that after such a promising start with the excellent action adventure *Ultima III*, US Gold has completely failed to reach the market, and now expect a game which was good for its time but is now clearly showing its age, to sell to people who

are used to getting high-quality adventures with original plots, from the likes of Infocom and Level 9, for around the same price.

So, if you were looking forward to *Wizard and Princess*, I'm afraid I'll have to suggest you keep your money in your pocket until something a little more worthwhile comes along from US Gold next month.

Finally this month I get a look at a pre-production copy of *The Rats* from Hooker and Stroupheim.

The theme is obviously the back of the same name by master horror author James Herbert, in which mutant killer rats suddenly burst forth across London in search of their new favourite meal — human flesh!

Throughout the game you will find yourself in the place of various characters, both major and minor from the book. You will need to be quite quick thinking and acting to pick the correct moves from the list of options you are given.

Rodents

The main game screen depicts a highly detailed, if rather small map of the affected part of London. Rat sightings from the public and security forces appear on the map and you have the option to read these reports and/or deploy forces to deal with the incidents. The final option on the main menu is the ability to research the origin of the rats and develop defensive and offensive weapons.

Deploying the forces gives an item driven menu which lets you choose which forces to use and what equipment to give them. Weapons research may yield very effective equipment but of course this takes time.

As an avid fan of Mr. Herbert, I found the game absorbing and fascinating from the first heading onwards, and I think that any adventurer looking for a new and original challenge will soon be caught up in the air of disaster that the game builds.

The only negative point I found was an inability to restart the game after getting killed, other than reloading. I would hope that this will be sorted out in the final version, since I can't see many people waiting 10 minutes for a game to load in order to play for about 10 minutes before dying as seems almost inevitable until you've worked out the opening moves.

That's a bit new but look out for next month's issue which will cover Activision's *Hooker and Stroupheim's Adventure Construction Set*. ■

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DA02 9JBB/3

AMIROG SOFTWARE is one of the UK's best-known games houses. Latest titles include *JumpJet*, *Magicalot* and *Firewind*, and new titles at the Show will include *Tribe*, a computer version of the popular quiz game "Trivial Pursuit". Amirog is also showing games for the C16, and a range of hardware including the *Victor Master Speech Digitiser*, a new *Mouse*, a disk cutter, disk covers, and the *Super Sketch* graphics table.

Argus Press Group

Stand 210/20/21

Liberty House,
222 Regent Street, London W1,
W1A 3PP

ARGUS PRESS is one of Europe's biggest publishers of computer magazines, one of which is the popular *Your Commodore* (recently merged with *Your 64*). The Software Group publishing games under



the *Labyrinth*, *Quickline* and *Mind Games* labels, including *Report* and the *Topmaster's* parts, *Nick Fadden's Open Golf* and *Scholarships*.

Artex Software

Stand 203/8

Unit 18, Ravenshoepe Ind Est,
Ravenshoepe, Blythburgh,
W10 5LN, W10 4RQ/2

ARTEX SOFTWARE is responsible for a wide range of

utility programs for the 64. On display at the Show will be a mouse with graphics software, a German version of the *Spektrum* package, an assembler, and an extended Basic/compiler package (marketed under license by Argus Software).

CDS Group Ltd

Stand 203/11/12



Silver House,
Silver Street, Doncaster,
South Yorks. DN9 1JQ/4

CDS SOFTWARE specialises in sophisticated simulations, such as the popular *Colossus Chess 4.0* and *Steve Davis' Snooker*. Included in this program is a computer play option which, for the first time ever, allows you to pit your snooker skills against those of the world champion. The trick shot facility allows you to set up and practice any shot you require.

CHS Software

Stand 202

42 Weston Road, Mirkham,
Surrey, GU44 1BB

CHS SOFTWARE will be showing its wide range of discount games and utility packages for the Commodore machines, along with a selection of hardware products.

Computer Bookshops Ltd

Stand 202/8

20 Lincoln Road,
Olton, Birmingham,
B11 2PT 75/4

COMPUTER Bookshops is one of the biggest specialist retailers of computer titles in the UK. The company will be displaying a wide range of titles from all the best publishers, including best-sellers, new titles, and bargains in the "annual hours corner".

Duckworth Publishers

Stand 201

The Old Piano Factory,
48 Gloucester Crescent,
London NW1, W1-8E 3AB/4

DUCKWORTH publishes a complete range of books and software for a wide range of home computers. A large number are devoted to adventure games, including a number of titles by Commodore Phoenix contributors Mike and Pete Goward. Other titles by Keith Bergin include *Impossibly Escapist* for the C64, and

The Computer of 2000 (Assembly). Visit the Duckworth stand to see these indispensable reference books and the latest titles.

Evansham Micro

Stand 209

Bridge Street, Evesham, Wore,
WR8 4JRP

EVESHAM Micro Centre is a leading utility program specialist. *Quickline+*, the hardware disk formatter, enables the 1541 to operate at five to five times its normal speed, with formatting in ten seconds and file file backup. Finally software transparent, the *Quickline+* offers a host of facilities for only £19.95. Other Evansham products include *Freeze Frame*, *Disk Director*, *Double*, and the 1541 *Physical Exam* diagnostic program. Check out all these, and Evansham's selection of computer supplies, on stand 209.



First Publishing Software

Stand 203/9



I'm blown if I can see why this damn thing isn't working...

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Welcome to the first Commodore Horizons Show! Whatever your interests, we're sure there will be something here to entertain and educate you.

Perhaps some of you will have been to shows in the past, and found that you either have to search through the entire event to find any exhibitors showing Commodore product; or, that your particular field of interest isn't well enough represented. Well, that's part of the reason for this show; all the exhibitors here are associated with Commodore software or hardware, and the wide range of products means that there should be something for everyone. Games players, business users, hardware buyers, programmers and creative computerists will all be catered for — it's the kind of balance we like to keep in Commodore Horizons.

We hope you'll all enjoy yourselves, looking at the new products, stocking up on essentials such as floppy disks and cassettes, playing the games and planning your Christmas purchases (only two months to go, remember!)

You'll find lots of competitions, promotions and special show offers to tempt you, and if you drop in on the Sunshine stand you'll have your chance to chat to the people who produce Commodore Horizons, and to win a C128 by playing Jeff Minter's *Synco 2* game.

It's an exciting time for Commodore users, with the C128 and Amiga on the horizon, and the 64 still dominating the home micro market. We hope you'll join us at the Show, and stay with us as the world of Commodore computing becomes bigger and better!

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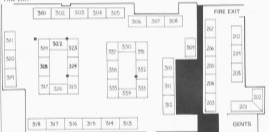
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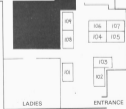


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Unit 100,

Hemel Hempstead Park,
Hemel Hempstead Road, Pangbourne,
Berks, RG26 7YW, 07071-2144

FIRST publishes an internationally renowned series of books and software specifically for the Commodore 64. Titles include *The Anatomy of the CBM 64*, *The Anatomy of the 3.5" Disk Drive*, and *The CBM 64 User Book*; and software packages including an *Assembler Monitor*, the word processor *FirstWord*, the database *FileMaster*, and the latest, *Powerplex*.

First Publishing's books and software are published in association with the successful German group Data Becker.

Flightlink Control Ltd

Stand 119

Unit 12,

The Maltings, Tack St, Alton,
Hants, GU35 0TJ

FLIGHTLINK specialise in joystick for a wide variety of industrial and commercial applications, as well as the joystick range on-display at the Show.

Twenty years' experience of switch and analogue joysticks for demanding applications goes into the low-cost reliable Flightlink range, available for all Commodore machines including the C16/Plus-1. Versions are also available for many other home computers.

All Flightlink joysticks are designed and built in the UK, and you can purchase any Flightlink product confident that the company will still be around to service them and supply new products in the years to come.

GEM Distribution

Stand 100

17 Maple Way, Harlow, Essex,
0279 448415

GEM distribution will be showing a range of discount games and utility software for the Commodore computers, including titles for the C16.

Grafton

Stand 100/101/102

280/284 Tottenham

Court Road, London W1,
01-221 3200

GRAFTON'S distributes most makes of home computer, peripherals and software. The company specialises in Epson printers, and also deals in a range of portable computers.

H&P Computers

Stand 114

UK Agents: 9 Humberston Walk,
Millington, Essex, CM9 1LZ,
0376-51471

DUTCH-BASED H&P Computers will be showing *The Final Cartridge* for the 64. This utility cartridge adds 200 extra RAM for basic programs, loads and saves disks six times faster.



provides Commodore's printer interface software, screen dump for normal and hi-res programs, an x/y/z monitor, a reset switch, new DOS commands, and a cassette turbo routine. Cost per unit is £50; talk to H&P about their special show offers.

ICPLUG

Stand 104/5

87 Chiswick Avenue,
Baling, W5 1LP, 01-993 2634

THE INDEPENDENT Commodore Products Users Group is a nationwide network of affiliated Commodore owners' clubs. For technical advice and details of ICPLUG membership, drop by the stand. ICPLUG will be organising seminars by well-known computer personalities throughout the day, covering subjects such as Basic, COMAL, and assembly; disk drives; networks; including Computer; database; legal aspects of programming; and new Commodore hardware — plus any other subjects you wish to talk.

Answer Back man Jack Cohen, author Risto West, and ICPLUG Chairman Mike Todd are among those who will be appearing on the ICPLUG stand.

IDS Computer Supplies

Stand 103

PO Box 68,
Milton Keynes, MK13 0JN,
0908-31894

IDS COMPUTER Supplies are specialists in computer consum-

ables. The company deals in a wide range of floppy disks, paper, printer ribbons, cleaning materials, and so on, and are main distributors for Control Data products.

Intergalactic Robots

Stand 100

Unit 208,

Highway Workshop,
22 Highway Green,
London W5, 01-299 2236

INTERGALACTIC Robots will be showing its wide range of robotics and interfacing devices for the C64 and other computers. The products are ideal for experienced experimenters or those wanting to learn more about robotics, and provide an inexpensive way to get into this fascinating field.

Leard Ltd

Stand 113

c/o Billings Distribution,
Star Road, Purleigh Green,
Nr Harlow, Essex, Ss9 7LD

LEARD LTD publishes a series of indispensable Commodore reference books by Risto West. Titles include *Programming the C64 64*, *Programming the VIC*, and *Programming the PET*. Programs from the books are available on tape or disk, and the author, Risto West, will be appearing at the ICPLUG seminars to answer technical questions.

Lightwave Leisure Ltd

Stand 101

2 Midway Rd, Uxbridge,
Middx, UB8 3PH,
01-438 5838

LIGHTWAVE LEISURE imports and distributes Commodore add-ons from Germany. Among the products handled by the company are *The Link*, a revolutionary busless joystick operated by motor switches; an EPROM burner,



which allows you to load your own programs into a special chip and in effect create your own "cartridges"; a motherboard, which can hold a number of programmed EPROMs; and a Test Board, which

exposes all the data, address and pilot wires from the cartridge part of the 64.

Marquest

Stand 102/3

49 Mount Pleasant, Tolly,
Hants, RG26 4JH

JEFF MENTER is probably the best-known game programmer in the business. His "Tasty" games, including *Beverage of the Mutant Cats*, *Morp in Space* and *Antipodal*, are fast and furious, don't "mooop", while *Psychobella* is a "light synthesizer" for the 64, C16 and Atari machines. Along with these titles, you'll be able to see Jeff's latest, *Master*, at the Show, and get down to some serious joystick-bashing. And



don't forget to read Jeff's monthly columns in *Commodore Horizons*...

Logic Sales Ltd

Stand 100/1

19 The Broadway, The Broomie,
Newquay, Cornwall PL4,
01-382 4162

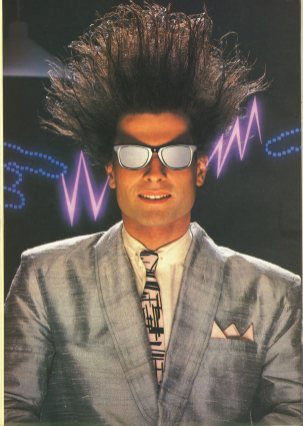
LOGIC SALES will be showing their wide range of games and utility software for the range of Commodore computers.

Maruch

Stand 100

Software Communications Ltd,
Marsh House, 4 Box Terrace,
Pursey Bay, East Sussex,
0313 768496

COME AND SEE Maruch's three major games releases: *David Copperfield's Miraculous Challenge*, a game in which strategy and skill take the place of sheer bravado; *Archie*, based on Tracy's highly successful series of monster machines, an epic of battle between the Red and Blue Zoids; and *The Planets*, a series



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of programs explaining all about the Solar System, and presented by Heather Cooper, President of the British Astronomical Association. Also look out for *Cozy Comets*, a fascinating anecdotal extravaganza.

Meroco Electron

Stand 414
13 Windsor St,
Milton Keynes, Lakes,
MK6 6JH

MEMOCO will be showing a robotic arm with six axes of movement and full position feedback, allowing closed loop control by the 64. Programmable from Basic, the ARM works with the 64, Vic 20, BBC, and shortly the IBM, Apple II and IBM PC machines. At £175, it represents an idea-ferocious introduction to the field of robotics.

Microdeal

Stand 20112
41 Truro Road, St Austell,
Cornwall, PL28 9AE, 0977-3444

MICRODEAL is one of the biggest producers of C16 software, including a series of adventure and arcade titles. Also available is *Land of Havoc* for the 64, a massive arcade adventure in which you control Sador, a reptilian warrior, in his journey around the mystical Land of Havoc, in search of the power which will enable him to vanquish the evil Dark Lords. *Land of Havoc* comes complete with a set of maps, and has over 3000 locations.

Micromedia

Stand 600
Rydal Mount, Baker Street,
Porter's Bay, Haris, EN6 2EP,
0971-62888

MICRO MEDIA Computer Supplies cover a range of computer products including data recording devices, stationary, and backup equipment. Their clients, who demand the best in quality and service, include Aric Car Hire, the BBC, British Aerospace, Metal Box, Pyle Telecommunications, Oxford University, and NTC.

To find out more about the products and service Micro Media can offer, visit the company on stand 601.

Micropride Ltd

Stand 16-4
Unit 16,
Meywood Industrial Estate,



May I thought you could only do this with the altar!

Midlogos, Essex, 0266-0-9977

MICROPRIDE manufacture and distribute a range of Commodore-compatible joysticks, data recorders and other products.

Miniature Tool Company

Stand 222/223
26 Queensway Station Parade,
Edgware, Middlesex,
01-848 1882

MTC ARE manufacturers of a wide range of connecting leads and cables for computers and peripherals. The company also markets Minicore data storage products, including the whole range of floppy disks, and a number of test-sliding joysticks.

Mushroom Software

Stand 214
190 Romney Road,
London SE17 9NR, 01-476 5533

MUSHROOM produce a range of powerful text editors, including an Extended Basic package; Repetitive; Advanced Centronics Interface; and more. There's also a game, *Sage Scramble*, and offers an Epson printer suitable for use with the Centronics option package.

Newsfield Ltd

Stand 425
1-3 King Street, Ladbroke,
Stratford, E8 1AQ,
0254-0811

NEWSFIELD publishes three of the biggest games magazines on the market: *Ezzy 64*, *Crash*, for the Sinclair Spectrum, and *Arcade* for the Amstrad machines. Newsfield will have the latest issue of *Crash* for sale

off the press, and you'll be able to catch up with all the latest in the games department, such as hoodies, T-shirts, sweatshirts, caps, and more.



You'll also have the opportunity to talk to some of the people involved in writing and producing the magazines.

Precision Software

Stand 120/1
4 Park Terrace,
Westerham Park, Sevenoys,
KT4 3JZ, 01-359 7666

PRECISION markets some of the most successful and powerful business utility programs for the Commodore machines. The latest products are for the C128; *Superscript 128*, the professional word processing system, at £79.97; and *Superbase 128*, a programmable database at £89.97.

Superbase, with over 70,000 users, is set apart from other similar products by its programming interface. Using a range of silly Basic commands, the pro-

gram can be tailored to your exact needs, rather than the user having to adjust his records to fit the database.

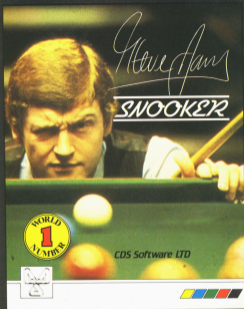
Superscript includes a spelling checker with an unmatched vocabulary (which can be extended by the user), a mail merge facility, and calculator function, apart from being one of the most powerful and easy-to-use word processing programs on the market. The two programs can be loaded into the C128 at the same time, to provide a powerful integrated office system at an affordable price.

Precision also handles the ST 10C, a 10MB hard disk drive for the CBM 8000, 64 and 128, supporting both IEEE and serial interfaces.

Rubicon Ltd

Stand 704
36 Market Place, London
NW11 6JF, 01-269 0118

RUBICON'S main product is the Turbo range of C128/64 extension cartridges. There are

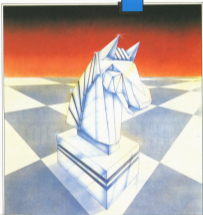


Available for the C16 £7.95
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Five cartridges in the price range £24.95 to £29.95, and facilities available include fast disk loading, fast cassette loading, graphics interface, monitor, programming utilities, reset switch, and much more. The latest Rubicon product is a cassette alignment kit, which operates on all popular home computers and sells at a price lower than that of any other comparable product.

RSC Ltd

Stand 333

RSC DISTRIBUTION Commodore-compatible data storage media and add-ons, including a selection of blank cassettes and games joysticks. Contact Mr Chopin on the stand.

Systems Micro Distribution

Stand 305

THE COMPANY distributes a wide range of Commodore-compatible software and hardware.

Software Ltd Distribution

Stand 412-3

Units 18-21, Imperial Wharves, London NW4, 01-731 6687

SID WAS formed at the beginning of the year, but has already established itself as one of the fastest-growing international distributors of titles from major software companies. The best packages are available for overnight delivery to customers, and most London orders are supplied on the same day.

Ask about overseas export, discount arrangements, and details of SID's inexpensive, speedy delivery service.

Stack 100 Products

Stand 202

Meredith Distribution, 18 Fentons Way Industrial Estate, Netherton, Merseyside, L30 4SL, 051-451 2300

STACK'S well-known range of home micro add-ons are now being handled by Meredith Distribution, under the name Stack 100 Products. The range includes many products for the Tri 20 and C1280, including disk covers, motherboards, joysticks and so on. The latest product is a trackball, complete with graphic design software offering a full range of commands, at only £29.95.

Sunshine Publications

Stand 308-7



12/13 Little Newport Street, London WC2H 3PP, 01-477 4343.

SUNSHINE publishes a range of computer books and magazines, including Commodore Horizons, Popular Computing Weekly, and a range of programming books for the 64. COME ALONG to the stand and you can play Jeff Minter's Space 2 game (and win a C128, or one of a range of prizes from Sunshine and Commodore); pick up a copy of *Horizons* and *PCW*; meet the people who put the magazines together; pick up a T-shirt or a badge; and look at the wide range of 64 programming books.

Synchromic Music

Stand 303C

25A Grove Avenue, London NW8 2AS, 01-883 1338

SYNCHROMIC Music's Vinyl 64 will be showing the *Stratus*

Engineer, which features "live" digital pre-recorded samples, turning your 64 into a high-quality drum machine with features over and above dedicated products costing many times the price. All the new sound sets will be there too.

Synchromic Music will also have first stocks of the Commodore Sound Sampler, which allows you to record your own samples and recreate and edit them on your 64.

SIEL CME 48 owners will be able to see the Sound Puggs, which turn the CME 48 into a programmable keyboard controller. Also on display will be the Commodore Sound Expander and four octave keyboard, lots of music software, and



details of show offers and packages. Come to the stand and give music to your Commodore!

Trojan Products

Stand 301

Stamens 60911 20491

TROJAN will be showing a range of hardware and software for the Vix 20 and 64, including their series of light pens and graphics software.

UK Home Computers

Stand 302-10

DISTRIBUTORS of Commodore-compatible software products.

Vulcan Electronics

Stand 310 & 311

285 Great Street, Hadden, London NW4, 01-265 6266

VULCAN Electronics distributes a wide range of top-selling Commodore-compatible hardware, including the Quakeball and Genesis range of joysticks for the C128 64 and C16-Plus/8. New products include an inexpensive, high-quality Kraft joystick and an 80-column thermal printer.

Zaxine Ltd

Stand 302

3 Orchard Cottage, Bowley Road, Hares, Widdowson, LUD 1EL, 01-448 4616

ZAXINE specialises in bilingual software. The latest products are the 64 and C128 versions of *Al-Qadim Elari*, a word-processing program which can switch from English to Arabic operation, and even mix two languages simultaneously. Also available is *Zax-64*, an Arabic/English basic language operating system, *Span 64*, a Spanish system, and *Spanchar*, a Spanish word-processor. Zaxine also produces a networking system for up to 20 computers, available for any of these programs.



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members sends up his personal favourites of the month.

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BBC full of Commies?

More like the other way around. John Coolrane looks at the software package which allows you to run BBC Basic on your 64

THE ACCORN BBC is perhaps the most important educational computer around. This is not to say that BBC computers are particularly good for educational purposes, just that the BBC is the computer most widely used in schools and colleges for teaching the fundamentals of computer science. Thus BBC Basic is the language most often used in class (officially at least) and, despite attempts to include the other machines commonly used by schools, a knowledge of BBC Basic is seen by many as vital when taking exams.



One of the unfortunate things about BBC Basic is that it is only available on Acorn machines, which have a justifiable reputation for costing more than most people can afford. Consequently many kids find themselves trying to learn a computer language at school which is not the same as the one provided by the machine which they use at home. It is very easy to become confused when trying to come to grips with computers and trying to learn two versions of Basic is an educational hurdle which can scare off even the most willing kids.

Emulator

Many Commodore owners, not just the kids, will be familiar with the Catch-22 situation of having a computer at home and access to a different computer at school or work. A program is needed for the BBC but you can't get to the thing because of all the other ones. You can use your Commodore to test out a few ideas but that's about it; you certainly can't create a full program and test it until now, that is.

Atrox Software has taken advantage of the generous RAM capacity and built-in versatility of the Commodore to produce a copy of BBC Basic running on the 64. There are some commands and facilities which could not be transferred to the 64, because of differences in hardware between the 64 and the Acorn machine; but the bulk of BBC

Basic is now available to Commodore 64 owners at a very reasonable cost. The BBC Basic Emulator (sold under the name Shado) also provides a big improvement over Commodore Basic for day-to-day programming, because BBC Basic is a more sophisticated language than Commodore Basic, and the BBC Emulator gives direct and easy access to high-resolution graphics and sound.

There are three or four areas where the BBC Basic Emulator cannot fully deliver the goods, and by looking at these in some



detail I can perhaps best show the limitations of the package. Bear in mind though that it's the things the Emulator can do which are probably more important than the things it can't.

Firstly, the Commodore screen display works in a different way to the Acorn BBC display, and thus the numerous video modes provided in BBC Basic are not fully supported. In fact the Emulator only provides two modes, a text-only mode similar to BBC Mode 6, but with 8 colours rather than just 2, and a high-resolution mode which is a sort of combination of BBC Modes 7 and 8. Its high-resolution mode the Commodore gives 8 colours (colours in low-resolution only), text in 25 lines of 80 characters, and a screen resolution of 320 by 200. There seems to be a bug in the Emulator QCLR command, (which is supposed to control the colour used in graphics commands,) and this makes it difficult to produce fancy graphics in colour, especially when the Commodore will only produce low-resolution colours in any case. The advice is to stick to two-colour graphics. Hopefully the QCOL problem is restricted to the review version of the software.

The second area of difference between the Commodore 64 with BBC Basic Emulator and the Acorn version is the way that the disc drive works. Atrox has not been able to duplicate the random-access filing provided by the Acorn BBC, and hence several of the disc commands do not work. In principle the Commodore cassette and disc storage devices are used in the same way as the Acorn equivalents but here again Atrox have been unable to produce full compatibility with the Acorn devices. You cannot transfer data or programs between the Acorn BBC and the Commodore with BBC Emulator. This is a pity, particularly as the Whitley Spectrum Emulator — reviewed in May — does permit the Sinclair Spectrum and Commodore 64 to swap basic programs by tape.

A further area of unresolvable difference between a Commodore 64 and an Acorn BBC is the handling of machine-code facilities. Again a compromise has been made between getting the Emulator working with a reasonable free space for programs left in memory (18428 bytes) and full emulation. Thus the built-in Acorn assembler has been left out and the associated commands, such as USB and CALL, are non-functional.

Education

All these areas where the Commodore BBC Basic Emulator differs from the official BBC Basic are pointed out in the small manual which accompanies the Emulator. The manual is brief and should be read alongside the Acorn BBC manual to real get the most from the package.

There are certainly differences between a Commodore 64 emulating a BBC and the real thing. Some of those differences could be important in certain situations, and Atrox has left a few bugs in the software just to keep us on our toes. All in all though I think the Shado BBC Emulator achieves what it sets out to do, that is, to allow the Commodore 64 to be used in a serious way in support of educational computing. It is possible to use the Emulator at home to practice programming skills and develop programs. It would also be possible for those schools with both BBC and Commodore computers to make better use of their hardware. ■

NOTEWORTHY: Shado BBC Basic Emulator
MS-DOS: Commodore 64
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The bit-map mouse

Can the Datas Mouse give your 68 the graphic abilities of a Macintosh?
 Bill Danakl explores the pros and cons of bit-map mode

THE DATES MOUSE system consists of a mouse which plugs into (number 1) joystick port of the C64, a system disk, a system cassette and finally a user manual. The manual consists of an explanation of the system software and maintenance of the mouse as well as a troubleshooting chart.

For those of you who are unfamiliar with a mouse, the device is essentially an upside-down trackball. By moving the mouse over a non-slip surface, coupled with the driver software loaded into the machine, the screen cursor moves in accord with the mouse. Rather difficult to describe the action, in words you either have them or have them, but the mouse is here to stay. Most of the IBM clone machines support them, and the Macintosh would be lost without its mouse. The mouse also forms a very important part of running the Amiga.

I must admit that I am not a 'mouse-man' using the C64. The likely reasons being two-fold: the obvious one being an acute lack of space around my own system, the second being here and there on the cursor keys of the machine. The first reason is of my own making and in a workspace of 6 feet by 2 feet I have just room to squeeze the monitor, 2 drives, a Plus/4, 85MB/T printer, the C64 as well as the usual mountain of impediments we all collect as time goes by. The cursor key problem is personal and does have some validity; the C128 has additional cursor keys at the top of keyboard as well as those at conventional lower right-hand corner, and try as I may I cannot get into the habit of using the upper set. I am sure I am not alone in this!

Mac-like

The software driver supplied with the Datas Mouse is a graphics creativity package. It claims to support the C128, which it does, but only in CGA resolution mode. Even since the announcement of the C128 a large amount of software has become available overnight which purports to run on the C128. True, it does, but not in the true sense of the words 'runs on', check with the retailer whether the software you are buying will run the C128 in it's native mode and not as a CGA.

IBC Distribution, the designers of the Datas Mouse, are already working on the C128 software, taking advantage of the

machine's superior abilities. Also in the pipeline is an additional graphics program giving many Mac-like features including Zoom, Expand, and a range of printer options, and a utility allowing the MS-D to be used with Precision's SuperScript word processor.

I found the basic software package to be comprehensive in it's coverage of commands. A very wide range of borders are available, and there is sufficient sophistication

supported! Only 3 colours are allowed at once on the screen. This seems to be such a fundamental drawback in a product which is marketed as a graphics device for use on a machine that can display 26 colours. All the other graphics tools in this price range support the full colour set, though admittedly they do not operate in bit-map mode.

The second problem with the Datas Mouse concerns the movement speed of the arrow which serves as the cursor. There are two user definable shift speeds, and although I did not try the slow speed, the fast speed was just not fast enough. The speed does not appear to be a logarithmic function of the distance moved by the mouse, but remains linear. In other words, you cannot reach opposite screen corners in one fast swoop of the mouse, that is unless you have eight foot arms.

I would tend to give the DATES MOUSE the benefit of the doubt on this point and try the fact at the door of the machine's hardware, but the failure to support all colours

is a drawback.

Utilities

My overall impression the Datas Mouse was very good, and I would buy one but for the criticism of the current software. The suppliers do make mention in the manual of further utilities and word processing software to come, so all may not be lost. Would have gone a small way to opening up their graphics tablet with a correspondingly expensive programming utilities on several disks.

I feel that the Mouse could overtake graphics tablets if the available software could match the inherent abilities of the C64. Given the better and faster graphics abilities of the C64 and PLUS/4, it could also eliminate most sales if these machines were supported. ■



tion to provide for the use of user-defined spray or brush patterns. The circles are truly concentric (not like those on my Kanga Pads) and the range of editing facilities I found to be very good. Text is supported on the screen with a limited range of fonts available, a word one being italics. The output of frames is well covered with disk, cassette and printer being supported. Alas, only the dreadful Commodore printers come into this category, and it would have been nice if a Commodore driver had been included.

There are two problems with the Datas Mouse software; the first diagnosed above my enthusiasm rather quickly since I discovered it. Because the software operates in 64 bit-map mode, which is necessary to provide the highest possible resolution plus print-out capability, colour is not fully

Precision Datas MS-1 Graphic Mouse
 Model: C664-64, 66-64, C128 644 model
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Just imagine your computer being able to understand what you say! Here the words initially seem to be recognised using the TransCommander. Although sophisticated software matching algorithms is used for word recognition, Voice Master opens up new horizons in all types of application software, especially in the field of education.

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VOICE MASTER comes complete with quality-head set, incorporating microphone and earphone (similar to telephone quality) plus advanced powerful software on cassette and disk.

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"Amazing to think of people still using typewriters! If you've ever wanted a speech synthesiser that simulates natural human-talking, then there's the peripheral for you. Unbelievable as this may seem, 24 initial words (with phrases) that someone else recognised by voice through the PC can be easily programmed into this product and no words can describe my amazement. If you own a 64 then buy this - you won't regret it!" HOME COMPUTING WEEKLY

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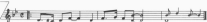
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Boom-chak-a-boom!

Hip hop, be-bop, don't stop — digital percussion sounds come to the 64 in the shape of the *Syntron DigiDrum*. Tony Mille stops his robotic dancing long enough to check it out

Practically every Top Ten single in the charts, from *W* to *World's First Funky Album*, uses synthesizers rather than relying solely on conventional instruments. What many record buyers won't realize is that the drum and percussion sounds are often electronic too — the *LeadDrum*, *DrumTrak* and *Drumulator*, for instance, are examples of digital sampling and microprocessor control applied to percussion sounds.

Now you can get the same realistic effects with your Commodore 64, using the *Syntron DigiDrum*. Like the professional instruments, the *DigiDrum* uses digital "samples" of real drum sounds, producing effects much more realistic than the old-fashioned home organ drummers — so real in fact that it can be impossible to tell whether a drum pattern is "real" or "sampled".

The *DigiDrum* consists of a cartridge-shaped box fitting into the rear port of the 64, with software on tape or disk. The existing seven sounds are of excellent quality, and because they've been defined by a software-controlled digital

to-analogue process, there's no reason why the *DigiDrum* can't be used with a large interchangeable library of sounds — and in fact more than 100 in the shops, it will come with a wider



selection.

The main menu presents you with five options: *Program Rhythm Line*, *Rhythm Track Composition*, *Set Tempo*, *Load Rhythms* and *Rhythm Track*. The first, selected with the *P* key, calls up a display showing a pattern up to 32 beats long. Also displayed are rhythm number, tempo, and the names of the seven instrument sounds available.

IC track control, *Popper* list, *(H)* closed list, *(D)* down, or small icon, *(O)* on, *(S)* stop, and *(R)* repeat icon. The various keys are used to move the pointer to the beat required, and sounds are inserted by tapping the appropriate keys. Unfortunately you can't hear the sounds playing as you write tracks.

You can compose ten rhythms in this way, defining the number of beats per bar separately for each one. Then you move to the *Track Composition* page, consisting of the columns into which you enter the notes repeats you want, for instance, 2=1, 1=2, 4=4, and so on. Capacity is around 10 patterns each of 32 beats.

You can define a new tempo at any time, and save and load rhythms, or a song, to or from disk. There's an excellent demo track included on the disk. The sounds of the *Digi-*



drum are excellent, too, though the controls are inevitably a little short, since sampling time is at a premium. The basic sounds are bright and modern, and the *DR* sound set disk contains excellent sets *Latin*, *Glam*, *Syntron*, *Clap* and other sounds and sound groups, which can be combined as you wish.

There's a major disadvantage for anyone wanting to use the *DigiDrum* with other electronic instruments — in addition to the jack audio output (which must be connected to a suitable amp and speaker system) the only other output is a photo socket, which outputs one pulse per beat. You could use it as sync to analogue sequencers, some synth applications or another drum machine, but you'd need to invest in some expensive interface in order to get it to work with MIDI or the Roland DIN sync standard.

Overall, though, the *DigiDrum* is a fascinating instrument which should find its place in the home studios of many musicians. In conjunction with a cassette-based multitrack portable and a couple of effects, or even just using the track-bouncing method with two cassette decks, *DigiDrum* can give your music recordings a professional touch which helps it happen once. ■

Hardware: Syntron DigiDrum
Model: CRM 64
Price: £55
Supplier: Syntronics, 20A, Grand Avenue, Merton 198, London SW18



THE SOUND OF THE CROWD

... it most likely made on a 64! Chris Jenkins and Harold Zeitgeist present our latest roundup of music software for the tuneful micro

YOU CAN'T avoid the sounds of Commodore 64 music — wherever you look, there's another new music product. Whether it's making music on the SID chip, controlling MIDI synthesizers, or sampling real sounds, the 64 is the world's most popular music computer — and the *Amiga* comes along!

Here are just a few of the latest C64 64 music products.

RHYTHM AND PITCH

Chalkcraft's educational programs are among the best known in the C64 64 market. The latest, *Rhythm and Pitch*, is a companion to *Note Invaders*, the music reading game.

Rhythm and Pitch is suitable for single students, or groups led by a teacher. There are two sets of tests, which can be taken separately or together. Using standard musical notation, the program will play a tune, then invite you to choose the correct note lengths, which are displayed beneath the staff. When you have done this, you must write down the correct pitches on manuscript paper. The program will then store you the correct pitches and timing, and award you marks.

Pitch tests are selected from the major scale; there are seven levels available from single notes to sequences of five notes. A card layout helps students to remember the correct keyboard controls.

Rhythm tests range from a single bar to four bars duration, and again the layout shows which controls to use. Various other options such as screen colours, volume, music speed, and score save (disk version only) are included.

Rhythm and Pitch is a well-designed educational program, though it should have

been possible to practice the Pitch exercises without having to use manuscript paper — the *Music Construction Set* shows how this could be done. Still, a worthwhile package.



which will suit many C64/XT-level students.
 • Chalkcraft, 37 Willowdale Road, Waverley W6J 7QP, 0961-8191.

time, so a sloppy performance can be pulled into shape; recording of performance information such as pitchbends, port changes, and touch response; and realistic tempo control.

At £104.34 including VAT, MIDI 8+ is hardly an impulse purchase, but for the serious electronic musician it may well be a viable alternative to dedicated MIDI sequencers such as Roland's MSQ-700 or the PolyMIDI-1.

At £26.51 including VAT, Passport's *MIDI Player* package is cheaper, but doesn't give such satisfying results. This package doesn't control MIDI (instead's graphics processor, which takes music files created using MIDI 8+ or the earlier MIDI-4+), and uses them to create dynamic patterns. The speed, density, shape and colours of the patterns can be chosen from an options screen, and "albums" of music files accompanied by graphics commands can be put together and saved to disk. As the music files control your MIDI synth, the graphics patterns appear simultaneously on the monitor. Unfortunately, none of the graphics options give staggering results — certainly nothing as good as Linnsoft's *Psychobits* or *Cubasepower* — so MIDI Player is probably only suitable for musicians with more money than sense (or Callowians).

MIDI SOFTWARE

Ritex Music is responsible for distributing some of the most powerful MIDI software for the Commodore 64 — the Passport series.

The latest additions to this American range are *The MIDI Player* and *MIDI 8+*. Using the Passport MIDI interface, the C64 64 can control any MIDI equipped synthesizer

or drum machine with this software. *MIDI 8+* is a disk-based, real-time, 8-track, 6000-note recording program. Using *MIDI 8+*, you can select a MIDI channel, sound preset, and tempo, then record any music played in real time on a MIDI controller. Then, in sync with a MIDI or Roland drum machine, you can replay the sequence at any speed or transposition, and "overdub" new sequences either played on the same MIDI channel, or on a different channel, controlling a different synthesizer. The potential of the package with a number of MIDI synths is astounding; facilities such as chaining, linking, editing and looping of sequences enable you to build up very complex compositions. *MIDI 8+* also features auto/record



Ritex promises more Passport products soon, including a music transcription package which will produce high-quality printouts using the MPE+001, and Mid MIDI music library album.
 • Ritex Music, 24 Rossmore Gardens, Edgware, Middlesex, UB8 3PH.



The Music Shop is the new Passport product from Ritex. It's a music transcription program for the 64 which handles first, repeat, triplets, and different time signatures, then prints out perfect scores.

MUSIC CONSTRUCTION SET

This disk or cassette-based program is ideal for non-musicians and experienced players alike. It's an intuitive, joystick-controlled composition package using a selection of



thirteen orchestral sounds from the SIEL chip. The control screen shows a music score with treble and bass clefs, and below it a control panel with note lengths, sounds and volumes for each voice, and options to load, save, and edit your compositions. To give you some idea what the program

can do, there are several demo tunes included with the package. Composition is easy; simply "point" at the note you want to play with the finger icon, then pull the note onto the staff and press the fire button. You can "cut and paste" by selecting the software icon, then move measures around as you wish. It's also possible to set the time signature of a piece, alter the tempo, transpose into a new key, and print out using a GDS or other suitable graphics printer.

Like Activision's Music Studio, the Music Construction Set can produce very sophisticated results. It isn't as easy to get into, and



doesn't offer any sound synthesis capabilities, so it's perhaps best suited to experienced musicians rather than beginners.

■ **Activision, Asphalt House, Palace Street, London SW1, 01-222 0833.**



Cheapest and easiest

music package on the market is Make Music With Midsamrinn, at £1.99. It gives you several instrument sounds to choose from, and using the joystick you can arrange notes to form a melodic line seven bars long, replay it, store it, and print it out. For the money, it's fabulous!



SIEL soft

SIEL is one of the best Commodore 64 suppliers in the music industry and divides its software and hardware releases now or has equally between those intended for its own range of keyboard instruments and those with wider applications. The latest releases include one package in each of these categories.

The first is labelled "Data Base Synthesizer", which is in fact properly a Synthesizer Data Base. The package stores and recalls sounds for almost any synthesizer except Yamaha's DX series fitted with the now almost-universal MIDI interface.

Despite the fact that MIDI is intended as a universal standard it's quite a feat to create

a package which can cope with all the wide variety of MIDI synthesizers on the market and run on almost any MIDI interface (SIEL's is D80). The Data Base arranges up to 256 sounds in "lantern" of 12, to which you can append any file of your own choosing up to twelve letters long (such as Strings, Brass or Effects), and allows you to transfer sounds to or from your keyboard — individually, in banks or in complete sets, depending on the capability of your synth. Sounds can be retained, shifted about and generally manipulated at will.

If you have one or more synthesizers from manufacturers such as SIEL, Roland, Korg,

Oberheim or Sequential, and have got tired of unreliable and boring tape dump routines, the disc-driven Data Base could be ideal for you. If you have a SIEL D800, on the other hand, their Graphic Editor (which simulates a whole screen load of knobs and switches for the largely knobless synth) will help you edit and create new sounds. Custom or joystick-driven, it has high-quality graphics and can "zoom in" on several sections of the synth, including the envelope shapers and waveform generators.

The software includes a short sequence and chord pattern to test out your new sounds without actually playing the keyboard, and dumps a finished sound to any spare memory on the D800 synth. It should help you find your way around the latter generation of single-control synths, the Graphic Editor and its file are ideal.

■ **SIEL UK, AHED Depot, Belgate Rd, Hookwood, Bokerly, Surrey. Tel: 893 74151/4.**

Sample and hold!

If Fairlight-type sound sampling effects intrigue you, but you don't have £20,000 to spare, Chris Whitcombe recommends Supersoft's Microvox Digital Sound Editor

THOSE OF YOU who own music synthesizers, and indeed those that just like looking at such nice toys, cannot have failed to notice the technological advances that have been made in the relationship between computers and hi-tech keyboards. Now that the MIDI system has been universally accepted the combination made possible are truly amazing, if not a little cool using sometimes fancy bits can be played by one another, or by a "Midiem" keyboard controller or, of course, by the computer using synthesizer or multi-track recording programs. What more could one ask for? Well, you know how it is. You are fiddling with the algorithms on the DSK wishing you could make it sound just a bit more like... whatever. If only you could 'lay' that sound off the record... you can, using a Digital Sound Sampler. Before

display, so it's simplicity itself to get the right setting. Different sampling rates are available from a brisk 8.822 sec at 20KHZ to a leisurely 17.28 sec at 1KHZ. The quality is obviously best at the latter rate, but even at the lower end of the scale the results are quite good enough for speech. For most musical purposes, however, 1.6 sec @ 10KHZ is suggested.

Two Filters are included, one on Input and the other on Playback, so there's no 'Cut the Top-end'. Also included is a COMPANDER which you can use or not as you desire. When ON, it really does give (initially) noise-free samples. As this goes you can, of course, LISTEN to the results of your efforts and approve them for next before moving on.

Page 2 is the Waveform Editor and, as well as drawing a pretty picture of your sound, also allows you to fiddle about with it to your heart's content. Parts can be taken out, EXPANDED, moved about, INVERTED, REFLECTED, PULSED IN and OUT and in order to help you position the Editing cursor accurately, you can change a SEGMENT of the waveform so that you can see what you are doing. You can LISTEN to the sample again (without having to change screens) and when satisfied move on to the Voice Handler.



This screen includes a table which tells you what percentage of sampling continuity you have left. If it's not all been used up, you can go back to square one and 'do' another segment or two. Here's where the real fun begins! Having filled the available memory space with samples, you can now 'layer' them together.

When you reach the PLAYBACK screen you will discover to your delight that you don't have to go out and buy that Keyboard Controller after all. Although you can (and the musician amongst you probably would) use a synthesizer keyboard to play your samples, the computer itself can do the same job, using the keys to replay the sounds. A Segments section allows the computer to allocate a sample (or sampled) to differ

ent notes and thereby build up a tune without the use of a keyboard. Screen 8 enables the user to assign sounds to specific keys or either the computer or touch for controller) over 4 octaves. This means that you could, for instance, have 3 or 4 different drum sounds on adjacent keys. A Simons Kit is one hand! The Special Effects page comprises a Digital Delay, being variable from zero up to the sampling time for the chosen bandwidth; REPEATS being varied by use of the front panel control.

Channels

Option 2 from the Main Menu is for assigning the MICROVOX to any of the 16 MIDI channels; thus it can be controlled by any one of your myriad of synths or, indeed, from any MIDI equipped Sequencer or Drum machine.

When you have finally got your sample as you would like it to be, you can SAVE it to disk, using the built in Disk Handler (Option 9), for later retrieval. There's a nice touch here too. How many times do you go to a disk to save something, only to find that there isn't one that's been formatted and you have to lose what you were working on in order to do it? (The Prepared? I hear you say. Sorry says...) Well, that won't happen with this little beauty as the routine has been included as one of the Options for forgetful people, like me.

As you may have realised (err... almost) my CH reader I was very impressed... not to mention amazed, staggered and generally bowled over. It's GREAT. All the screens are, more or less, self-explanatory helping to make MICROVOX extremely user-friendly. The sampling quality is excellent, as is the whole product... and I'm going to buy one!

By the time you read this (you did read it, didn't you?) MICROVOX should be readily available, courtesy of SUPERSOFT. If you want to find out more (or just have a fiddle with one) then try GARGOLYNDIS in Cardiff where there should be one or two on display... and For Sale! ■

Product: Microvox digital sound and music sampler
PRICE: £150
SUPERSOFT: Warehouse House,
Canning Road, Wyalabanks, MARRIS,
Salford, W. Yorkshire, M66 1JH
Tel: 0161 275 1144
GARGOLYNDIS: 22 Rector Green,
Cardiff, CF4 0JF

Cardiff 22 Rector Green will be excited to hear of Joseph's True Belief, a sound program with a graphical interface for use with the Joseph MIDI interface. Review forthcoming: contact Joseph at PO Box 20, Evesham, Warwick.

JOSEPH



you start wondering where you can get a second mortgage, don't worry: samplers are getting cheaper, and better, all the time.

One such box of tricks is Andy Train's MICROVOX, to be distributed by SUPERSOFT at a mere £150. Don't be fooled by the price tag: this is not a glorified Speech synthesis device that makes vaguely humanised notes, but a fully-fledged MIDI-compatible monophonic sound and music sampler.

On the back of the unit are sockets for Analogue In and Out, MIDI In and Out and a ribbon cable for connection to the carriage port of the 64. The front panel has a GAIN control to adjust for signal levels of varying levels (dBu/Line/Tape etc.), MIX for balancing source and sampled sounds, REPEAT for use in the Digital Delay mode and an OUTPUT level control.

Digitized

All the on-screen choices and sample data are changed by just a handful of keys, so you won't get bogged down by masses of typing or by having to remember which key does what. Option 1 is the sampling page... not difficult to guess what happens here! The sound to be digitised is fed into the MICROVOX via the Audio In, and the GAIN control is used to adjust for maximum level (before overload of course). You then set the THRESHOLD at which the sampler is to begin operating... this is so that you get a copy of the required noise, and not the sound of the cat sitting in Mandy Chanks. GAIN and THRESHOLD both use Bar

Primary Commodore home-computer users, when faced with buying a printer, have long to turn an Epson but soon got off by the problems involved? First, it's not easy to connect the two together. Secondly, even when connected, only the necessary to load their software on the printer do they become usable. Finally, Commodore-specific characteristics such as graphics and formatting commands will not be available.

New Micro Control Systems have the solution. And plug the Compact smart board into the Epson, connect the cable supplied to the Serial I/O port on the Commodore computer and you're there! The Compact handles the Commodore via its own in-house working with a Commodore printer. All the features are there - total emulation. And it even handles a 24 byte buffer as well.

What's more, all the additional options that have made Epson so successful such as extended print and other type styles, are accessible directly by the Commodore computer. For the business user the ability to use 12 inch paper on the MICROSET's 110 page program is a big or other Epson special characters will prove invaluable.

So go on - spot yourself! If you wish to order the Commodore personal computer head your order to Epson - and a Compact board!



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Reporting back

Mike Hart's utility program for the 64 and Vic serves three purposes — it counts lines, reports missing references and gives a byte total

REPORTER is a machine language utility designed for the Commodore 64 and Vic 20 machines. The loader distinguishes between the two machines, and makes adjustments to ensure that the correct version is loaded.

When activated by a call to SYS 126, REPORTER will do three things. Firstly, it will report the number of lines in a program. Secondly, and of much more importance, it will check through the entire code to see if the program contains any unreferenced lines that might have been left behind after a renumbering exercise for example. These lines may have hidden for a long time if they are only activated under strict conditions, for example, as are contained in a little-used sub-routine. REPORTER will make use of the machine's own RAM routines to signify if an unreferenced line exists by the standard message "UNDEF'D STATEMENT ERROR IN" followed by the address specifically checked for within the program are the following: CTR01, C61 T0, L60R01, T10R0, and R61R0.

However, LIST is not checked for as this command would still work if arbitrary ones of the referenced lines had not been.

Kilobytes

If all of the line references are correct then the program will report LINE: OK. Finally, the routine will compare the number of bytes in the program, and will report this number both in bytes and also as kilobytes (i.e. bytes divided by 1024). In this process, the program will count the line terminating 0 at the end of the last line but will not include the two zeros which the CBM uses in addition to signify the end of a program. Otherwise an empty machine would report a program of length 1 which is somewhat anomalous. If there is no program in the machine then REPORTER will signify NULL — this can be verified by a NEW followed by the SYS call.

REPORTER actually loads into two locations in memory. The main portion of the program (which is quite relocatable) is situated in the top 1/4K of RAM at the top of memory, and then protected by lowering the top of memory pointer. The message table is located in a different area, location 80250-8025F, which is generally safe in both VICs and the C64. This then allows the main program to call the message table by references to absolute addresses in RAM, and this considerably aids the ease with which the whole program can be relocated. The start address is the top-of-memory, and this is accessed always by a call to SYS 123 containing the code 07 (700), i.e. an indirect call to top of memory. ■

REPORTER

```

1  ROM *** REPORTER ***
2  *
3  EQU ** HOME HART **
4  *
5  EQU ** SYS 780 TO ACTIVATE **
6  *
7  EQU ** CODE LOCATED ITSELF **
8  EQU ** AT TOP OF MEMORY ... **
9  EQU ** AND BEFORE-RESET (SAFE) **
10 *
11 EQU ** VERSION FOR C-64 AND VIC **
12 EQU ** 100000 EQUALLY 04 00701 **
13 *
14 F0R0 00,PEEK(150)+0:0L0
15 THREE:051+0:000:0FE0:001
16 W0R0 IF PEEK(000)0:000 THEN W+1
17 *
18 F0R J00 TO 010:0000 0:IF 0:0:0 THEN 00
19 0:0:0:0:0:IF W+1 THEN 0:0+0:0
20 F0R0 T+J,0:0:0:0
21 *
22 F0R J00 TO 07:0000 0:IF 0:0:0 THEN 00
23 0:0:0:0:0:IF W+1 THEN 0:0+0:0
24 F0R0 000+J,0:0:0:0
25 END
26 *
27 EQU 000,44,120,100,000,0,100,100
28 DATA 100,001,100,000,000,0,177,000
29 DATA 000,07,000,001,000,0,000,000
30 DATA 000,177,100,000,17,100,000,70
31 DATA 000,177,100,100,07,000,177,100
32 DATA 100,00,04,000,0,101,000,100
33 DATA 100,144,017,000,100,170,010,001
34 DATA 041,040,00,001,017,000,00,001
35 DATA 107,040,04,001,100,000,00,001
36 DATA 000,040,0,000,100,000,100,000
37 DATA 100,000,100,000,000,000,100,000
38 DATA 0,000,100,00,110,0,100,000
39 DATA 00,107,100,00,10,100,170,100
40 DATA 70,027,100,00,010,170,000,001
41 DATA 170,001,1,000,00,100,001,000
42 DATA 0,100,000,000,100,001,100,000
43 DATA 00,000,100,100,000,100,0,00
44 DATA 000,0,00,010,170,100,170,100
45 DATA 0,00,000,0,00,100,100,000
46 DATA 00,170,100,000,000,04,100,000
47 DATA 000,1,000,100,100,000,100,000
48 DATA 00,000,100,100,000,100,0,00
49 DATA 000,0,100,000,100,000,00,140
50 DATA 170,00,10,100,000,0,100,0
51 DATA 00,140,170,00,00,107,00,100
52 DATA 100,100,100,100,0,00,000,0
53 DATA 00,100,000,00,0,00,000,0,00
54 *
55 DATA 00,70,70,70,00,00,0,70
56 DATA 70,70,00,00,00,00,70,00
57 DATA 00,70,70,10,00,00,00,00
58 DATA 00,00,00,00,00,0,00,70
59 DATA 0,0,70,00,70,70,10,0
60 DATA 00,00,170,00,0,100,00,0

```


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Unit 10	10.00	Soft 10	10.00
Unit 11	10.00	Soft 11	10.00
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