

Only 85p

DM 6.8

Commodore

October 1985

HORIZONS

RESCUE on FRACTALUS

TYPE IN JEFF MINTER'S SYNCR0 2

WIN
VOICE MASTER
from Anilog
SPEED KING
from
Digital Integration

Plus/4 software

**AMIGA
EXCLUSIVE**



WIN A C128!
Plus, hundreds of
other great prizes

AND ON THE EIGHTH DAY OF SUMMER

Experience the thrill of top international competition in your own home! Summer Games II brings it all to you with eight challenging new events. You and up to seven other contestants can compete in your favourite individual event or go for it all in the grand competition. Some events, like cycling, rowing and fencing even challenge you with realistic, head-to-head competition.

First, decide which of the 16 different countries you're going to represent. Then, in true Olympic fashion, you will need the proper strategy and mental toughness, not just speed and agility to excel in each of the eight events. That's why we included a feature that lets you practice each event until you're ready for the real competition.

Remember, it's not too early to get ready for 1988. With the right diet, proper training and lots of practice you just might make it. In the meantime, put on your seatbelt, grab that joystick and let Summer Games II give you eight new ways to Go For The Gold!

- Includes Cycling, Fencing, Kayaking, Triple Jump, Rowing, High Jump, Javelin and Equestrian Events
- Opening, Closing and Awards Ceremony With National Anthems
- Compete Against The Computer or Your Friends
- Individual and Head-To-Head Competition
- Over 2000 Events!

'SUMMER GAMES II DOESN'T LOOK SET TO BECOME A CLASSIC - IT IS A CLASSIC!'

-ZZAP 64



ZZAP 64	
PRESENTATION	99%
GRAPHICS	97%
SOUND	96%
HOOKABILITY	98%
LASTABILITY	97%
VALUE	98%
OVERALL	97%



EPYX

2

H DAY EPYX CREATED...

R GAMES II



Opening Ceremony
Trophy Jump



Cycling II

Screen shots as seen on
the Commodore 64

AVAILABLE AUGUST
for Commodore 64/128

CASSETTE **£9.95**

DISK **£14.95**

"Summer Games II now takes the
lead as the greatest sports
simulation ever created for the 64."
—Commodore User

"Summer Games II is eight
year-old games rolled into one
piece of software—100% value for
money."
—Computer Gamer



Tennis II
& Volleyball II



TRY THESE OTHER GREAT GAMES FROM EPYX

SUMMER GAMES



IMPOSSIBLE MISSION



PRESTOP II



BREAKDANCE

AND COMING SOON... WINTER GAMES

U.S. Gold Limited, Unit 10, The Parkway Industrial
Centre, Henage Lane, Birmingham.
Telephone 021-294 2000
Telex 337264



EPYX

COMPUTER GAMES



GAMES

Soft Hits

Latest for 64, Vic and C18

Video Star

Review on *Fractalus* — Activision's epic of interstellar adventure

Tower of Adventure

Ego Martens takes a look at the latest from Level 5, *Red Moon*

CREATIVE

Music Studio

A joystick-driven sound symbols and composition program


27

HARDWARE

The Amiga micro

Commodore's astonishing new machine reviewed in depth, with software news and a look at Motorola


22

UTILITIES

Summing up the Plus/4

A look at software for this neglected micro

36

PROGRAMMING

Jeff Minter's Syncro II

32

Eyo in Jeff's game for the 64, play for a high score, and win hundreds of prizes including a C128 or disk drive



REGULARS

Mail Merge

Make your voice heard on our letters page

7

News

Zeals, marketing men, and 30y off the Moon

8

Speed King

Win copies of Digital Integration's high-speed bike simulation for the 64

10

Charts

Best-selling CBM software

13

Summer Games

Win US Gold's biggest title yet!

16

Minter Mania

More fireworks from Tak the Hairy

29

Answer Back

Technical advice dealt with by Jack Cohen

43

Voice Master Contest

Win Amirog's talking box for the 64

49


Editorial

Commodore UK is showing a good deal of faith in the C128, and initial reactions from software buyers and retailers seem to indicate that this faith is justified. However, it will take good marketing to make the C128 sell; although the price of the basic unit is reasonable, at £299, adding the 1971 disk drive and a colour monitor will bump up the price of the whole system. Buying a cheaper manufacturer's monitor would be one solution. Still the complete price of a C128 system will come nowhere near that of an Amiga. This smaller machine is bound to cost around £1000, and can only be aimed at the professional market. Memory expansions, extra disk drives and other peripherals will blow the cost of the system even further.

So Commodore has two potentially world-beating systems in the pipeline, one for the upper end of the mass market and one for the low-cost end of the pro market. The two also's really competition — the cost factor alone will determine that — so perhaps Commodore UK's policy of keeping quiet about the Amiga, in case news of the machine hampers the prospects of the C128, is unadvised. We hope this issue's letter for the Amiga, and C128 competition, expresses our commitment to both systems.

Next Month

Big Show Issue!

Trade in all the exhibitors

Treat your 64

Present for your 6400

Plus

Great computers, news and reviews

EDITOR Christopher Ingham **PRODUCTION EDITOR** Barbara Hogg **EDITORIAL SECRETARY** Geraldine Smyth **GROUP ADVERTISEMENT MANAGER** David Lutz **ADVERTISING MANAGER** Simon Langston **MANAGING EDITOR** Bryanides Goss **PUBLISHING DIRECTOR** Dennis Ford **TELEPHONE (ALL DROPS) 0-477 4343 UK** **ADDRESS** Commodore Horizons, 12/13 Little Newport Street, London WC2H 7BP **US ADDRESS** Commodore Horizons, c/o Business Press Int'l, 200 First Street, New York, NY 10011 **US SUBSCRIPTIONS** UK £20.00 for 12 issues, overseas surface including US and Canada £28.00 for 12 issues, 1% and Canada airmail US\$33.95 for 12 issues.

Commodore Horizons is published monthly by Best Press Ltd, Typeset by In-Sup Ltd, 30-41 Daffodill Street, London EC2A. Printed by Riverside Press Ltd, Fraser Way, 6 Horsham, Kent. Distributed by SP Distribution, 30-31 Trinity Gardens, London SW6, telephone 01 274 8933, telex 20440. ISSN 0261-4154. Registered at the post office as a newspaper.

© Commodore Books 1983

SETTING TYPESETTERS Commodore Horizons invites readers' contributions, either program listings or articles. Articles should be typed, double spaced with a wide margin. When 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.S. if you wish your submission to be returned. All submissions must be your own original work.

ABC

Precision Software's **Business Software Family**

for your
Commodore 128

Superscript

**The Intelligent
Word Processor**

"Typewritten, sophisticated and powerful processor... this is the ultimate."
— *Steve Roberts, Commodore Magazine, July 1988*

What is Superscript?

Superscript combines word processor, spelling checker, calculator and wordwrap facility with one package. In Superscript you do all the tasks you need to produce high-quality reports, letters, lists, personalized letters and even letters quickly and efficiently. Superscript's powerful and sophisticated wordwrap feature is the popular **Key-Spacer** and **Auto-Justify** programs. Superscript has more than 200,000 words available, so you'll always find the word you need.

Simple for the beginner

If you're new to word processing, Superscript's simple command menu and easy commands let you get started quickly and easily.

Each command is a 3-letter code, and for each command there is a break line of help/description. In addition, commands are grouped, so you don't get lost in the command list.

Once you're more familiar with Superscript, you can type in the menu.

Powerful for the experienced user

Superscript gives you the ability to cut with open line minimums, saving your own commands and macros into preset storage keys. This means that with a single keystroke you can reproduce complex word processing or menu addresses from memory. You can document format or include your program's response to a situation. That's a real power!

Editing options

Superscript gives you all the editing options of a business style word processor, with automatic justification for cut and paste, copy/pe or toggle for modes, search and replace with pattern matching and optional case discrimination, backward search, case and/or word wrap, or toggle for case. And much more.

Good with numbers

Superscript allows you to extend your editing line up to 20 columns for wide documents like financial statements, and with decimal auto it's easy to enter properly justified tables of numbers.

Superscript's complete built-in calculator functions are focused interactively, or into an optional on-line spreadsheet. Based on your documents, apart from financial calculations, functions like date, add/sub, multiply, divide, percentages, etc. have the ability to add rows, columns or even whole tables.

Good with spelling, too

The built-in spelling checker goes right through your text, checking the only a word against a dictionary, and stopping at each one it doesn't recognize. You have the option to continue the word, spell the new word, ignore it. Superscript has over 75,000 word dictionary. In addition, it stores new words as it learns them.

Mailings with Superscript

Personalized mailings are easy with Superscript. You can enter the data manually or use data set taken from your spreadsheet or database. Merge your own or someone else's data into letters, forms or tags. A mailing label formatter includes help you with input forms and you can enter the template to put your own labels on, complete your mailing and you can enter the template to put your own labels on.

Attention Easy Script users!

Easy to write Easy Script, the Superscript's powerful choice. With its advanced features and more powerful facilities, you'll find the built-in commands more. There are 100+ commands, problems solved. You can run your Easy Script files in Easy-Script memory and under Superscript.

Superbase

**The Programmable
Database**

For those quality and professional,
Superbase is the choice of 200,000 users.

Easy to get started...

That's why you'll notice about Superbase is the expert 200-page owner's manual.

The total installation includes training and professional support from the start through sophisticated programming, while the maintenance and needs of companies. You enjoy the manual's easy style, its detailed illustrations and comprehensive index.

Easy to use...

You'll never have to fret at your own filing system, business information, professional data, records or articles. You always have instant access right in the screen, easily to your data base, with helpful on-screen explanations never more than a key press.

With the input screen, you can use Superbase's built-in commands to enter, change or delete individual records. Once you have built up your records, you can search, sort and output data in many ways. To design your files according to Superbase's commands through menus. The menu lets you step by step to create the requirement. Nothing could be simpler!

The hidden power...

As you become more familiar with Superbase, you'll find many ways of changing commands. One way is through the Command key. Any sequence of characters can be specified and the combination of characters, known as the command line, is used for the following.

The advantage of Superbase is that you can write any number of these commands together to form complex programs. After writing the programs, and only do you have access to the screen appears to operate commands, you can include the complete set of ordinary BASIC language commands.

This capability forms a straightforward database management system into a powerful and flexible office system.

Developing complex applications for yourself becomes a realistic proposition, with your freedom of Superbase as the only limiting factor.

The integrated office...

Superscript and Superbase are actually built into the computer's memory together. This means that you can switch between Superbase and Superscript's editing interface between the two and working on your filing system and documents without ever having to reload. That's integration!

By your own tools, and in the thousands of installed Superbase users manuals, they'll be proved to be easy, professional, and robust to handle.

- Entire database language program is memory resident
- Allowed for searching or viewing
- Built in single line built-in utility
- State of the art viewing (text retrieval any record in less than 3 sec)
- Flexibility to add, and fast operations allowed without the need to reinitialize the file
- Data types into you calculated result for on-screen fast recalculation, including built-in math functions
- Searches may be up to 127 fields deep, output to file table display
- Search/enter progressively formatted positions response to single
- Index linking across separate files
- Includes free label printing program
- Supports all standard printer interfaces

LOOK FOR THE SUPERBASE TOUCH SCREEN

Also available on Commodore 64, Atari 800XL, Atari 130XE, Apple IIc and Apple IIe.

Super TYPE

**The Professional
Keyboard Trainer**

Suitable for all ages, SuperType guides the novice typed towards computerizing professions, strengthening keyboard training techniques. All the family can learn to touch-type at home, acquiring a valuable skill.

An endlessly patient tutor helps you improve your productivity without expensive typing classes or tutors.

INFORMATION ORDER FORM

Code	Price	UK (PST)	US (PST)	US (MSL)	US (MSL)	US (PST)
Superbase	75.00	25.00	25.00	25.00	25.00	25.00
Superscript (disk)	—	25.00	25.00	25.00	25.00	25.00
Superscript (tapes)	—	15.00	15.00	15.00	15.00	15.00

Transfer cheque to £ or \$

Change my Access Yes. Details:

Name:

Address:

Postcode:

Signature:

Date:

OR CALL US ON 01-336 7166.

010



Precision Software Limited
101-103 Terrace, Warwick Park, Surrey CR1 1JZ, England
Telephone: 01-336 7166 Fax: 01-336 7167

Precision Software Limited
101-103 Terrace, Warwick Park, Surrey CR1 1JZ, England

Superbase, Superscript, Precision Software are registered trademarks of Precision Software Limited.

3

NEW COMMODORE 64 CASSETTES OUT NOW FROM ARIOLASOFT ▶▶▶

▶ KARATEKA

Karateka is also based in the 'Play of Karate', the centuries-old martial art of Japan. In this classic story of one-man-a-battle against insurmountable odds, your mission is to rescue a beautiful princess from a dungeon deep inside the palace of the evil-wizard Muma.

Brudersoft have created an arcade-action game as close to an interactive movie as computer game players are likely to see. Extremely large and realistically animated figures come alive against beautifully detailed scrolling backgrounds. You are in full control of the hero's every movement. Walking, running, boxing and all fighting movements including the strategic timing and placement of kicks, thrusts, jabs and punches are an integral part of the gameplay.

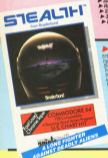
The story progresses through a series of increasingly more challenging encounters with the enemy, until you finally meet the ultimate opponent. Multi-in-surprises make trying to rescue the princess difficult and addictive.

- ▶ Suspenseful, movie-like story
- ▶ Kick, Punch & Kick ability
- ▶ Convincingly animated characters
- ▶ 3D scrolling backgrounds
- ▶ Realistic Karate fighter to the death



US No 1 HIT!!

A FABULOUS 3D MARTIAL ARTS KATAKE PROGRAM



▶ STEALTH

STEALTH has everything the arcade action player dreams of. You are right at the heart of the action as you pilot a powerful Stealth Starfighter on a mission of critical importance - to destroy the Dark Lord and win it the Merciless Council of Nine.

The sky is alive with warp-lighters closing in from all directions. The landscape battles with a domineering solar tower firing heat-seeking projectiles of doom.

Rocky-controlled position locks, high energy laser artillery... all at this and more await players of STEALTH.

- ▶ Stunning 3D effects
- ▶ Deadly Enemy Allied Planes
- ▶ 5 Levels of Death
- ▶ Vicious Heat-Seeking Missiles
- ▶ Senseless Domnant Active Voltages
- ▶ Positive/Negative Energy Fields



▶ THE CASTLES OF DOCTOR CREEP

Tenish tactics containing over 200 rooms await inspection. You will find each room filled with challenging puzzles and similar surprises. Power levels, electronic generators, death rays and wandering machines are only a few of the treats in store. THE CASTLES OF DOCTOR CREEP is a very challenging arcade challenge game, full of surprises and the Doctor's sinister, weird lair of fun and terror. There's no turning back on a visit to the Doctor's rooms. You will want to keep coming back for more of the Creepy hospitality.

- ▶ 2-Player Interactive action
- ▶ 13 Separate Castles
- ▶ Over 200 Puzzles
- ▶ Monsters and Franksteins
- ▶ Deadly Lighting Machines and Traps
- ▶ Perilous Moving Ray Gun
- ▶ 1 or 2 Players.



A CHILLING ACTION STRATEGY PROGRAM

Available from all good software retailers... if it's not there, please order it - or in case of difficulty send your crossed cheque P.O. made out to Ariolasoft M.K. Ltd., including your own name and address, to Ariolasoft U.K. Ltd., Suite 105/110, Argente House, Palace Street, London SW1E 5HS.

▶ KARATEKA ▶ STEALTH ▶ CASTLES OF DOCTOR CREEP ▶ Commodore 64 cassettes - £9.95 each.

Please allow 21 days from order for delivery.



Sorry, Solar

TWO UNFORTUNATE blunders crop into the September issue. In P Dean's Basic Recovery program on page 5, line 58 should read DATA IN\$=IN\$(M\$(A\$(I\$(I\$,1),16),16) and so on. We missed out the second 16(), in our eternal shame. Furthermore, Solar Software's budget games are not priced at £29.99 as was suggested on page 5, but at £1.99. Again, we humbly apologise. Those responsible for the mix-ups have been contacted to read Zzap! 64 until they apologise.

Plus/4 plea

I HAVE recently bought a Commodore Plus/4 computer with which I am very satisfied. However it is difficult to find books covering this machine or software.

All the magazines I do not have a disc drive, but would be pleased if you could advise me what books and software are available for the Plus 4 and also where they can be obtained.

B Hunt
Chesham

Such THIS MONTH'S Plus/4 software roundup should be of help. In the future, try our C28/Plus/4 Companion by Brian Lloyd, available mail order £3.95 + 50p p&h.

Just one thing...

HERE IS a tip for the fido game 'Thing On a Spring'. Hold down the top left arrow key on the keyboard, ENTER/DEL/JINGL all at the same time. The toaster will go black, and when you start the game you will flash and your oil gauge will flash. This means that your oil never runs out and you will be indestructible.
Simon Smith
Sheffield

Cure for anorexia

I BOUGHT my first CM because it was a very good computer magazine and there was much information in it.

But now I realise that it is beginning to get thinner and thinner and thinner ... until only the cover will be left!

Maybe you could insert some new sections like an art section, an adventure helping section of a poke section. If

there will be a poke section, here are some poke's for the CM4 64.
POKE 8026: DISABLES THE STOP KEY
POKE 8011: ENABLES THE STOP KEY
POKE 8016: DISABLES INPUTS
POKE 7610: DISABLES (RUN-STOP-RESTART)
WAIT 6044: WAITS UNTIL (CTRL) IS PRESSED
POKE 7148: LIST GIVES ONLY THE NUMBERS
POKE 8074: DISABLES ALL KEYS
POKE 8043: ENABLES THE KEYS
POKE 8016: AUTO-REPEAT ALL KEYS
POKE 8010: AUTO-REPEAT ONLY CURSOR KEYS

SYS 6474: RESET
Michael Peeters
Mortel
Belgium
Commodore Magazine will be getting larger shortly. In any case, we always feel we offer quality if not quantity ...

Perils of poking

HERE'S A tip for Vic-20 'Perils of Wily' players. Follow these steps for infinite lives:

1) Press VIC, Top POKE 8441:POKE 5879:8 (8times)
2) Restart type, type

VERIFY (8times) and start tape
3) Stop tape when cursor responses
4) Press VIC, type LOAD (8times)
5) When READY appears, press RUN-STOP and RESUME keys
6) Top POKE 8820,20 (8times)
7) To begin game, type SYS 1289 (8times)
I hope this is of some use!
Gareth Cox
Manchester

Help in Essex

I HAVE recently formed an adventure help line in Essex, a small informal club with 100 membership. Through the Club I hope to give up-to-date information on the latest adventures, and circulate a monthly newsletter to members at no cost. The Advent writer will be available each evening from 7-9 and at weekends. Help can be available for all Scott Adams adventures, Level 5, Intuition, and various other games.

The Club exists solely as a service to other adventurers. Anyone interested in joining can get more details by telephoning 0247-442266.
Roger Garner
Rogersford
Essex



CBM Int'l losses

COMMERCIAL International experts to make a loss of \$600 in the last quarter of the year. Only a year ago, the company reported record profits of \$140k.

The problems seem to have been caused by overproduction, leading to hardware stockpiles having to be devalued. Despite prospects of opening up new markets in Latin America, sales have fallen sharply, and share prices have dropped from a high of \$40 to \$20.

American commentators are now suggesting that only a major success for the Anigra machine, against the opposition of IBM and the ailing Apple Corp, can restore Commodore International to its former healthy state.

Now that's what I call . . .

VIDEO SOFTWARE is taking a leaf out of the record industry's book by releasing a "compilation album" of popular games titles for the 64.

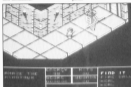


New Games will be available from August 1985. The games on the Commodore 64 version of the tape, which will sell for £29.95, are Lords of Midnight (Microgen), Everquest a Mally (Chikropod), Stronghold (Virgin), Italian Bluebird (The Edge), Arabian Nights (Intercept), and Future Pilot 2 (Virgin).

The compilation is being backed by a £200,000 advertising campaign on TV. For more details contact Virgin at 2nd Floor, Yard, Parkside Road, London W11.

The magic Edge

LATEST game product from The Edge, Wizardry, promises to set new standards for 64 graphics and animation.



Already compared favourably to games like Ultima's **hall of Karnak**, Wizardry features over 70 play levels, each with multiple chambers depicted in perspective. The game, which is expected to be shown at the PCW show, features music choreographed to

the action and composed by the team responsible for the music in CBM's **Rocky Horror** theme game.

Wizardry also features "demos" puzzles which when solved open doors to otherwise inaccessible parts of the action.

The game will cost £29.95 on cassette. Contact The Edge at 12-13 Havernia Street, Covent Garden, London, EC4A 3RT.

Audiogenic take to bat and brush

AUDIOGENIC's successful program **Graphic Artist's Tool Cabinet** has been made available on disk "to public demand". The game, which reveals all the animated graphics, player options and scoring features of the cassette version, will cost £1.95. Audiogenic's latest release is **Paintbox**, a high-resolution graphic design package with versions for the 64 on one side of the cassette and for the CBM-Plus/4 on the other.

Paintbox costs £29.95, and can be operated either by joystick or keyboard. The "dockbox" menu contains commands for freehand drawing and positioning of lines, rectangles, circles, frames and boxes. Both versions contain a range of cursor speeds and patterns of various colours.

The CBM version also contains a colour luminance command, while the 64 version can store two pictures in memory at the same time, and has an **ORPS** command which reverses colours. Both versions allow pictures to be saved to tape or disk.

Audiogenic's last bit of news is confirmation of a marketing agreement with **Intercode** based software house firm. Now known for their arcade games for the Atari machines, firm says Audiogenic will be handling marketing, sales and distribution of all current and future loan programs.

Contact Audiogenic at 35, Serrins Industrial Park, London Road, Reading, Berks, RG4 6AA6.



Anirog's designs

LEADING games software house Anirog has announced plans to enter the utility software field, and to develop the hardware range including the **Wave Master** and **Super Sketch** products.

The software product is a CAD package for the 64. The program will enable users to generate accurate 3-D images of any required object, which can be modified for design and testing applications.

Hardware plans include a Disk Writer, which allows single-sided disks to be read as double-sided by cutting an extra notch, at around £6.95, and a range of disc-covers for mirrors.

New games programs planned include **Space Pilot 2**, a sequel to the popular arcade game, **Jump Machine**, and a **Trivia Quiz** program with questions tailored to the UK audience.

Trading plans to have all the products available before Christmas. For more details, contact Tom at, Victoria Industrial Park, Victoria Road, Darford, Kent, G22 9D9A.

MM at CBM

CHRIS RADNY has been appointed Marketing Manager for Commodore UK. He will have special responsibility for

Chris Radny — the man



business systems, and will report to Paul Trivik, Manager, Marketing and Consumer Sales.

Radny was formerly with **Endemorse Business Systems**, where he gained sales experience then moved into marketing, becoming Head of Sales and Marketing and working on the launch of the K series.

Radny's role will be to "maintain the effort on home computers, and pave the way for the launch of a range of innovative business products in the business systems area, including the Commodore 900 and the Anigra."

Life in a 64

GAMES software house Activision has announced its product line-up for the period leading up to Christmas. President, Gregory Fitchbach, and UK MD Hugh Ross-Parrell believe that the software will "excite, enlighten and Gamemaster expand the minds of home computer owners around the globe."

It is, the company responsible for the four 'Wars' series. The de France is the first Activision product to be developed in Europe.

Gamemaster is a programming tool using simplified menus and instructions to enable you to design your own machine-code game. Sprites, colours, music,



War on Fracatale and **War de France** are reviewed in this issue. **Fracatale** is the first 64 game to be produced by Lucas

10-4 to Compunet

COMPUNET'S latest service is a scrolling "CB-style" chatline for real-time conversations.

The service, scheduled for launch in the late Autumn, will allow Compunet subscribers to type contributions into a "window" at the bottom of the screen. There will be a number of individual chat-lines, so that users can divide which conversation to join.

Compunet's current chatting service takes the form of a "bullet-in-board" by which contributions appear on the screen shortly after being sent. The new service takes the concept of interaction, which is central to Compunet, one step further.

At the same time, the multi-player chess game **advent** on 64UD has now been made available to non-Compunet members, anyone owning a home computer and a 1200/15 baud modem can now play the game, either at local call rates through Compunet's 12 nationwide access points.

For details contact Compunet at Market House, 15-18 Clipstone Street, London W1P 0DF.

music, scoring and scenery can all be easily designed, and a number of sample games are included to give you some ideas to work on.

Somebody's Living in my Computer is not so much a game, more a way of life — it allows you to communicate with an electronic "buddy" living in a little house in your 64. The characters and actions of the little people are sophisticated and sometimes surprising — and you might be surprised at just how much they can do for themselves.

Henry McQuigan's World Championship Bowling is a sports simulation which concentrates on skill rather than pure play — you have to design your training routine, create opponents, then fight intense contests to make it to the top.

Bullseye is another Lucasille product, a three-dimensional futuristic sport — or is it a war? — in which fast-moving deadly battle takes a scrolling landscape in an attempt to score goals.

All the programs will be in the shops by Christmas, courtesy will be £9.99, disks where available £14.99, except **Gamemaster**, which is £14.99 on tape and £19.99 on disk.

Contact Activision at 15 Harley House, Marblebone Road, London NW1.

Strongarm tactics and monster machines

MARTECH Software has announced two new games based on the video monster Zoids and strongarm Geoff Capes.

The Zoids, successful machine-monster toys marketed by Bandai, have been brought to the monitor screen by The Electric Pencil programmers, the team behind **The Fourth Protocol** game. A large-scale advertising campaign, including a launch at the PCW show, is planned for the Zoids game, which is the first of a projected series.

The **Geoff Capes Strongarm** game is a sports simulation rather than a "physical-handling" exercise — it allows you to guide Geoff through a training program, then go for the Strongarm championship.

Both games will be available in October at £9.99.



Contact Software Commodore, Market House, Bay Terrace, Princes Way, East Sussex, 0323 788416.

See the Show

USE THE voucher printed here to get 50p off the admission fee for the Commodore Horizons Computer Show at the National, Hammersmith, London, on Saturday and Sunday, 26th-27th October.

The show, arranged by Computer Marketplace in conjunction with Commodore Horizons, will offer something for every

Commodore computer user; games players, applications software users and business users. Just cut out the coupon — photocopies are NOT acceptable — and you can get 50p off the entrance fee.

Exhibitors should contact Computer Marketplace, 28 Orange Street, London WC1H 7ED, 01-630 1642.

Commodore World **show**

How to get there
By Underground
Hammersmith
(Hammersmith Line)
Hammersmith (Piccadilly and District Lines)
By Bus: 266, 774, 718, 760,
50, 72, 73, 74

26th-27th October 1985
National Exhibition Centre, Hammersmith

This voucher entitles the bearer to

50p OFF

the admission fee to The Commodore Horizons Show, applicable for one day only. To be surrendered on entry. Only one voucher per person may be used.

SPEED KING



ON YOUR BIKE!



Digital Integration's Speed King brings you all the thrills and spills of big bike racing from the safety of your 641 It's a fast and realistic simulation in which you must use all your skill and courage to defeat your opponents on the way to the world championship. We have twenty copies to give away each with a big colour poster — all you have to do to win is to answer the questions on the right, and send your entry on a POSTCARD with your name and address to **SPEED KING CONTEST**,
Coronation Horizons,
12/13 Little Newport Street,
London WC2H 7PP.

Closing date is the last day of October; winners will be announced in the December issue.



What film star rode a motor bike to freedom in the film *The Great Escape*?



What do the initials TT stand for?



What American stuntman tried to jump the Grand Canyon on a rocket-powered motorbike?

DIGITAL
INTEGRATION



COMMODORE SOFTWARE THROUGH THE POST.

(WITHOUT PAYING THROUGH THE NOSE)

Simply send off this page and you'll get:

SOFT POST MAGAZINE FREE

No more peering around the shops trying to find the software you want. Let Commodore magazines which will send you every few months (they're packed full of software information) — but there's no obligation to buy anything, if you don't want to.



WIDEST CHOICE OF COMMODORE SOFTWARE ANYWHERE

In every magazine there'll be special offers in enormous selection of great software at amazing prices — and not just games, but educational, business and home uses too. (Sometimes you'll even find peripherals at special prices.)

PLUS ONE OF THESE PROGRAMS FREE

Took the box against the software of your choice

COMMODORE 64
 Robert Charney's Menu
 Planner (basic) V.C. 20
 Know your Own G (basic) Singson's Chess (cart.)
 Holmes Moom's Road Race (cart.)
 Astronomy (basic) Harbour Attack (basic) CDMS00006 3x Plus 4
 Space Sweep (basic)

I would like to receive a regular issue of Soft Post from Commodore (please see applicable V.C. 20/64/80 Plus 4

Title (last) _____ Initials _____ in course _____
 Mr. Mrs. Miss _____ Telephone _____
 Surname _____
 Address _____
 Postcode _____ Telephone _____

OR, IF YOU INTRODUCE A FRIEND.

Fill in your name and address and your friend's below. Now you can choose one from either list, just tick a box.

V.C. 20 COMMODORE 64
 Programmers Reference Guide (book) Programmers Reference Guide (book)
 Introduction to BASIC (tutorial) Fantasy Fun (tutorial) CDMS00005 3x Plus 4
 Jack Adams (tutorial)

I would like to introduce my friend who lives at Commodore (please see applicable V.C. 20/64/80 Plus 4

Title (last) _____ Initials _____
 Mr. Mrs. Miss _____ Telephone _____
 Surname _____
 Address _____
 Postcode _____ Telephone _____

STD. Code _____ Telephone _____

ONLY ONE APPLICATION PER HOUSEHOLD.
 PLEASE ALLOW 8-9 DAYS FOR DELIVERY.

Power to SOFT POST FREEPOST Commodore Business Machines (UK) Ltd. Corby Northamptonshire NN17 8QR.

Commodore
HARD SOFT TO BEAT

OR...MADE BY ALIEN



THE FINAL CARTRIDGE®

THE FIRST OUTSIDE OPERATING SYSTEM FOR THE CBM 64

This new operating system built in a cartridge does not use any memory and is always there. Compatible with 98% of all programs.

Features:

- **DISK TURBO** - 8 times faster disk access, loading and saving.
- **TAPE TURBO** - 50 times faster save with less - reserved Commodore memory - compatible with standard turbo's.
- **ADVANCED CONTROLLED INTER-FACE** - compatible with all well-known conference printers and Commodore printer programs. First of the Commodore graphics and control codes prepared for testing.
- **Advanced screen dump facilities** - Printy, Look, Run, Fix, save and Multicolor Fullscreen! Free line numbers and page programs, like Double, Page, Find etc. Searches automatically for the memory address of the picture.
- **20K EXTRA RAM FOR BASIC PROGRAMS AVAILABLE** - Two new commands: "Memory read", "Memory write". They move 192 bytes with double memory speed anywhere in the 64K Ram of the CBM 64. Can be used with screen and variables.
- **BASIC 5 & 6 COMMANDS** - like Draw, Show, Repeat, Catalog, etc.
- **BASIC PROTECT** - with Auto, Backup, Load, Database, Show, Find, Help, Quit, etc.

- **PREPROGRAMMED FUNCTION KEYS** - Run, Load, Save, Catalog, Disk commands, list programs of the presentation.
- **KEYBOARD EXTEND 2** - Allows you to define part of a line, insert and delete lines, strings, insert cursor to letter without cursor. Files and Symbolics file. Top command operates your printer as a typewriter.
- **COMFORTABLE EXTENDED ML MONITOR** - with automatic load/unloading speed switch, font switching, etc.
- **RESET SWITCH** - resets to standard mode with old, resets to 80 Run program, erases every protected program.
- **ON-OFF SWITCH** - we hope you never need that one.

12 Months reply
warranty guarantee

14 Days money
back guarantee if
you are
dissatisfied.

SPECIAL INTRODUCTORY PRICE

FOR ONE € 50,- FOR TWO € 37,-
each

FOR THREE
OR MORE
€ 30,- each

Don't wait for your friends
ORDER ONE NOW!!!
Just pay the difference if you
order within a month.

H&P
COMPUTERS

U.K. ORDERS - Barclays and Accesscards or
Cheques should be made out to
H & P Computers, 9 Hornbeamwalk,
Wilhamstown CM9 2 5Z England.
Telephone: 0376 - 511471.

Copyright © 1984 H&P Computers. Reproduction by any means without permission is prohibited.

Top Twenty CBM 64 Games

- | | | | |
|----|--------------------------------------|--------------------|---------|
| 1 | (3) <i>Way of the Exploding Fox</i> | Melbourne House | \$8.95 |
| 2 | 1-1 <i>Hyperspace</i> | Imagine | \$9.95 |
| 3 | (2) <i>Elite</i> | Pitford/Acornsoft | \$14.95 |
| 4 | 1-1 <i>Frankie goes to Hollywood</i> | Orson | \$9.95 |
| 5 | (5) <i>Prince 2</i> | Epoch/US Gold | \$9.95 |
| 6 | (4) <i>Softball</i> | Softball | \$4.99 |
| 7 | 0-3 <i>Nick Faldor's Golf</i> | Mind Games | \$9.99 |
| 8 | 0-0 <i>Rockford's Boat</i> | Morabik | \$9.95 |
| 9 | 0-0 <i>Seamus Clavin's Cricket</i> | Acclaim | \$9.95 |
| 10 | 1-1 <i>Fourth Protocol</i> | Hutchinson | \$12.95 |
| 11 | 0-0 <i>Ms. Do</i> | Datasoft/US Gold | \$9.95 |
| 12 | (5) <i>International Tennis</i> | Commodore | \$5.95 |
| 13 | 1-1 <i>Thing on a Spring</i> | Granola | \$7.95 |
| 14 | 1-1 <i>Tour de France</i> | Acclaim | \$8.99 |
| 15 | 0-0 <i>Great American Road Race</i> | Acclaim | \$9.99 |
| 16 | 0-0 <i>Five-a-Side Soccer</i> | Amrig | \$9.95 |
| 17 | 0-0 <i>Red Moon</i> | Level 9 | \$9.99 |
| 18 | (7) <i>Drop Zone</i> | Micrografx/US Gold | \$9.95 |
| 19 | (1) <i>Dambusters</i> | Sydney/US Gold | \$9.95 |
| 20 | (7) <i>Jet Set Willy 2</i> | Software Projects | \$9.95 |



Bubblers

- | | | | |
|---|--------------------------|-------------------------|---------|
| 1 | <i>My Alley Ace</i> | Micrografx/US Gold | \$9.95 |
| 2 | <i>Skyfox</i> | Arbitrator | \$11.95 |
| 3 | <i>Beached 2</i> | Access/US Gold | \$9.95 |
| 4 | <i>Speed King</i> | Digital Integration | \$9.95 |
| 5 | <i>Robin of Sherwood</i> | Adventure International | \$9.95 |

Top Ten CBM 64 'Non-games'



- | | | | |
|----|------------------------------------------------|-----------------------|---------|
| 1 | (2) <i>Mac Office</i> | Creative Publications | \$19.95 |
| 2 | (2) <i>Master Studio</i> | Arbitrator | \$14.99 |
| 3 | (4) <i>Charlie & the Chocolate Factory</i> | HR Multimedia | \$9.95 |
| 4 | (3) <i>Mr. T Game</i> | Shy | \$19.95 |
| 5 | (4) <i>White Lightning</i> | Gen | \$14.95 |
| 6 | (4) <i>Simon's Brain</i> | Commodore | \$9.95 |
| 7 | (4) <i>Mr. Man Game</i> | Morabik | \$9.95 |
| 8 | (2) <i>VV Tool Set</i> | Commodore | \$14.95 |
| 9 | 1-1 <i>Soft</i> | Soft | \$14.95 |
| 10 | (2) <i>Enterprise</i> | Softball | \$9.95 |

Business Publications

- | | | | |
|---|----------------------|-----------|---------|
| 1 | <i>Arbitrator</i> | Liberty | \$14.95 |
| 2 | <i>HR Multimedia</i> | Education | \$9.95 |
| 3 | <i>Shy</i> | Education | \$19.95 |
| 4 | <i>Gen</i> | Liberty | \$14.95 |
| 5 | <i>Commodore</i> | Language | \$9.95 |
| 6 | <i>Morabik</i> | Education | \$9.95 |
| 7 | <i>Commodore</i> | Education | \$14.95 |
| 8 | <i>Soft</i> | Business | \$14.95 |
| 9 | <i>Softball</i> | Business | \$9.95 |



Bubblers

- | | | | |
|---|-------------------------|----------------|---------|
| 1 | <i>Mr. VV Tool Set</i> | HR Multimedia | \$14.95 |
| 2 | <i>Master Code Book</i> | New Generation | \$14.95 |
| 3 | <i>Game Center</i> | Morabik | \$12.95 |
| | | Education | |
| | | Liberty | |

Top Five C16 Games

- | | | | |
|---|---------------------------|-----------------|-------------|
| 1 | 0-0 <i>Airwolf</i> | Elite | \$5.95 |
| 2 | (3) <i>BMX Races</i> | Mastertronic | \$1.99 |
| 3 | (2) <i>Dark's Dilemma</i> | Genie | \$5.95 |
| 4 | (4) <i>Dark Tower</i> | Melbourne House | \$8.95 |
| 5 | 0-0 <i>Tower of Evil</i> | Them | \$88 \$5.95 |

Bubblers

- | | | | |
|---|----------------------|-------------------------|--------|
| 1 | <i>Granada</i> | Adventure International | \$9.95 |
| 2 | <i>Scorpius</i> | Mastertronic | \$1.99 |
| 3 | <i>Vegas Jackpot</i> | Mastertronic | \$1.99 |

Top Five Vic 20 Games

- | | | | |
|---|-----------------------------|--------------|--------|
| 1 | (1) <i>Rockman</i> | Mastertronic | \$1.99 |
| 2 | (4) <i>REP</i> | Mastertronic | \$1.99 |
| 3 | 0-0 <i>Goalblug</i> | Mastertronic | \$1.99 |
| 4 | (3) <i>King Tut</i> | Mastertronic | \$1.99 |
| 5 | 1-1 <i>Mickey the Brick</i> | Probed | \$2.50 |

Bubblers

- | | | | |
|---|-------------------------|--------------|--------|
| 1 | <i>Psycho Stripper</i> | Mastertronic | \$1.99 |
| 2 | <i>Football Manager</i> | Addictive | \$7.95 |
| 3 | <i>Flight Path</i> | Amrig | \$9.95 |

All data compiled by BANC from a panel of specialist dealers.
Sales period - 4 weeks prior to August 19th 1985

HACKER™

You've stumbled into an
unknown computer system.
Now what?

— "Logon please".

One word appears on your screen.

— What do you do now?

You don't know the password. You don't even know what computer system you've hacked into. But you do know that you must find out more.

— There are no instructions. No rules. No clues.

— You're completely on your own.

— You've found your way in. But is there a way out?

ACTIVISION
HOME COMPUTERS SOFTWARE

Available on Commodore C64, IBM Cxcel/4, Zen, Apple II, II+, IIx, Cxcel/4 Cxcel, Zen/24, Spectrum Cxcel/4, Amstrad 484 Cxcel/4.
From selected branches of Books, 99p each. 20th March, Lady's, Spectrum, Gemini, Microsoft, Jiffy/4000 and good computer software stores everywhere.
Also order: Activision (UK) Ltd., 14 Harley House, Marylebone Road, London W1P 3LP. Tel: 01-493 7445.

Vics in space

A notch from Atlantis, and well up to standard for unexpanded VIC games, Space Excort is a standard shoot-'em-up featuring fighters, alien space ships and huge space transports. You start with nine fighters, which fly around the screen

under joystick or keyboard control. Your job is to defend the



27 space liners, shown one at a time on the left hand side of the screen, from the savage attacks

of the various warships (Flies, Spheroids, Spirals, Kiamikans, Androids and Mother Ships) which shoot an screen from the right hand side. Each liner has seven force shields, which change colours as the invaders knock them out. It's just like something from a B.B. "Doc" Smith novel. You start with nine fighters and are awarded an extra four for clearing a screen.

The "graphics" are fairly well

designed, fast moving and colourful. The sound effects are well up to standard too, and as usual there are many attack waves and bonuses for completing screens.

Program: Space Excort, Vic 20
Supplier: Plover (2.80)
Graphics: ★★★★★
Sound: ★★★★★
Gameplay: ★★★★★

Burning rubber

Racing Destruction isn't one of those titles that says it all — the game simulates also car racing (like Scalextric) with options for blowing each other up. However, being an electronic ARS import from America (courtesy of Aristonoff), naturally there's more to it than that. A lot more.

The display is split screen for you (P1) and the rest with very nice Xerox-like graphics showing the action of the track you are presently occupying in glorious 3-D.

There are 80 tracks to choose from... or you can build your



own. Fancy racing more bugs? How about changing the gravity? At Vic 40 you can make the Deutsches Haxxard look like

a bunch of GAPS can for a Sander drive, as you zoom into orbit over the ramps.

This is really jolly good fun —

and with the almost endless permutations of tracks and cars again, you can modify each type in various ways, so you won't get bored with this one easily.

One reservation — owners of the faithful 20V will need a good book to read while all the different sections load — I suggest *War and Peace*.

Not suitably gripping as P101 package, but has enough merits of its own to justify a good look, if you are a racing games fan.

Program: Racing Destruction
Supplier: Aristonoff
Price: Disk (24.95)
Graphics: ★★★★★
Sound: ★★★★★
Gameplay: ★★★★★

True to type?

Type-Slayer is a good basic idea, but might perhaps have been developed much further. It's an educational arcade game which aims to teach touch-typing.

A helicopter flies across the sky dropping letters on parachutes. As the letters float to the



ground, you have to hit the appropriate key on the 64 to capture them out of the air. As you hit the correct key the letter is coded by software-generated speech.

There are 16 lessons to get

through, and you can redefine, save and reload your own exercises if you want, as well as selecting the speed at which you wish the letters to come up. This all sounds fine — adding a little reinforcement value to the common job of learning touch-typing. But there are several problems. Firstly, the software speech isn't that clear, and also has a job catching up with the less you're hitting. So the whole idea, of using the speech to allow you to take your eyes off the keyboard,

doesn't quite work. Secondly, unless I'm being misled by the lack of instructions with the review copy, all the exercises are in upper case — not much good when you're required to use lower case with shifts or upper in normal typing.

Program: Type-Slayer, 64
Supplier: Tynes
Price: ★★★★★
Graphics: ★★★★★
Sound: ★★★★★
Gameplay: ★★★★★

Hee-hee in 3-D

Is the world ready for another version of PacMan at this stage of the game? Aedogenic obviously think that the answer is yes, since they've now released a version of Supremacy's 3-D Gloopster for the C18. Fortunately, the "3-D" element of the title gives away the fact that this isn't the normal bird's eye view maze game. Although the plot is

the same — make your way around a maze, avoiding the gloopsters while collecting magic squares, solving out the power packs which enable you to turn the tables and devour the gloopsters; the screen display is an impressive perspective graphics affair seen from the viewpoint of the player.

There are 880 dots to collect as you make your way around the maze. Proceeding 81 brings up a map showing your current position and that of the nearest gloopster. You'll also hear an



alarm sound if there are gloopsters nearby.

Control is by joystick or keyboard, and though the sound effects are minimal they're quite sufficient.

The biggest problem with 3-D

Gloopster is the packaging. The artwork is so awful, resembling something done in crayon by an 8-year-old, that it could put off potential purchasers. A pity, since this is the first game of its kind for the C18, and it delivers a good deal more than the artwork suggests.

Program: 3-D Gloopster, C18
Supplier: Aedogenic/Supremacy
Price: (4.95)
Graphics: ★★★★★
Sound: ★★★★★
Gameplay: ★★★★★

WIN!
Summer Games 2



*delm galdo

*amsegy piclom

GOLD MEDAL GAMES!

SUMMER GAMES 2 looks like being the biggest success so far for US Gold — no surprise, considering the astounding graphics, amazing sound and fabulous gameplay. Now you can win a one of twenty copies of this stunning program, on tape or disk.

- Summer Games Two offers eight events:
- * **Triple Jump** — timing is critical as you leap into the second block, and set your performance replayed on the monitor screen.
- * **Rowing** — rhythm is all-important as you speed through the water, competing against the computer or another player.
- * **Javelin** — speed towards the line and time your throw exactly; judge the angle too for grand-planting results.
- * **Equestrian** — guide your horse over intimidating jumps, time your timing and

you'll take a nasty tumble.

- * **High Jump** — this bar goes higher and higher — do you have the skill to soar over it?
- * **Fencing** — lead or lead combat with strategy playing just as important a role as speed and skill.
- * **Cycling** — Keep your joyride rotating to keep those wheels turning!
- * **Kayaking** — Steer between the gates, avoid the white water, and keep an eye on the time clock.

All the games are accompanied by original music, and there are opening and closing ceremonies featuring some of the best graphics and animation yet seen on the 64. With up to eight player options, high score tables, national anthems, practice mode, and options to play any combination of events, Summer

Games 2 is the one everyone will be wanting to play.

Summer Games 2 is available on cassette at £29.95, and disk at £24.95. All you have to do to win a copy is to unsubscribe the three magazines, all of which are connected with sports.

When you've deciphered them, complete this 10-breaker sentence in an apt, original and amusing manner in fifteen words or fewer: "I want to be a US Gold medal winner because . . ." Then tell us whether you want a tape or disk version.

Send your entry with your name and address on a POSTCARD to: Summer Games 2 competition, Commodore Magazines, 12/12 Little Newport Street, London WC2E 9PP. Closing date is the last working day of October. Winners will be announced in the December issue, and all normal competition rules apply.



*anmarru tho



Allsorts

A little from a new budget software house is always likely to come in the party liney scoring, is it going to be cheap and cheerful, or just cheap and nasty? *Veronica* acquires itself fairly well, although it doesn't reach the "trick out at once and get it" status of some Phibeal or Mastermind games.

In the centre of the screen is an energy cone which is the target for the alien battles. Your task is to pilot your ship around the screen eliminating them. Your task is much more complex by the fact that the cone attracts your missiles towards itself, so to hit the battles you have to manoeuvre yourself until they are between you and the cone. As each wave is destroyed, an energy gate opens and on docking with it your ship is transported to the

next zone to be defended. Control is by joystick only and



there are nine levels of play with several waves per level, and a bonus life for every 10,000

points. Some of the sprites are quite good, resembling various *Legionnaire* aliens, insects and asteroids. *Veronica* is fine for fun as long as distraction, and an interesting introduction to the Phibeal label.

Program: *Veronica*, 64
Supplier: Phibeal
Price: £1.20

Graphics: *****
Sound: *****
Gameplay: *****

Jewel search

This month's most subtle offering as far as sophisticated programming is concerned, but a reasonable effort at the price. *Cops and Robbers* is basically a maze game, but with just enough original elements to make it worth another look. You control the figure of a jewel thief

moving around the offices of a diamond company which, with total disregard for basic security,



leaves piles of diamonds lying around for you to grab.

Once you've found your way

into the building, avoiding police and helicopters, your aim is to collect as many diamonds as possible, while knocking off policemen. You have to start at your gateway cut to deposit diamonds or retreat with bullets.

Extra elements include a vigorous policeman, hidden diamond mines, hidden keys and combination locks. You'll need too find a torch to explore the depths of the mine where the best diamonds are found and

you have to avoid being captured (in which case you'll end up in the nick) or shot (in which case you'll end up on a slab in the morgue).

Miami Vice it ain't — but at least it isn't *Julian Barnes* either.

Program: *Cops 'n' Robbers*, 64
Supplier: Atlantic
Price: £2.50

Graphics: *****
Sound: *****
Gameplay: *****

Play the games

Supposed to last year's big hit, *Summer Games 2* is an impressive graphically as anything you'll ever see on the 64. Epyx's programmers push the machine to its absolute limits, producing the most wonderfully detailed animations and excellent sound and music as well.

The format is exactly the same as SM, eight Olympic events, which can be played sequentially or individually, all joystick controlled. To give a quick rundown, *Triple Jump* requires precise timing to achieve a well-timed series of leaps. *Rowing*

is a matter of keeping up a left-right rhythm to build up speed. *Javelin* is perhaps one of the



most impressive sections, with both timing and speed combining to bring about the best result.

Squash is equally impressive, as you guide your ball over a series of leaps, while *High Jump*

is one of the most difficult to master. Fencing is original and complex. *Cycling* is dull with

nothing more than a regular electric motor joystick movement required, and *Karatka* is demanding on both timing and thought to achieve best results.

The games, along with the opening and closing ceremonies, are assembled graphically and marvellous soundly. Unfortunately the gameplay itself doesn't hold the interest — as we've all seen this kind of thing too many times before. An essential purchase, but one you'll probably enjoy watching more than you enjoy playing.

Program: *Summer Games 2*, 64
Supplier: LSI Card
Price: £24.95 (pb), £14.95 (disk)

Graphics: *****
Sound: *****
Gameplay: *****

Vroom!

Digital Integration has done a splendid job of converting this motorcycle racing game to the 64. Like the original Spectrum version, it's basically *Pole Position* on a Suzuki, the difference being that here you have a choice of two authentic racing circuits.

There are 19 competitors for

you to manoeuvre at three skill levels, with joystick or keyboard control of direction and gear



shift. There are six gears, which correspond to different speed ranges, and acceleration and

braking are affected by gear. Colliding with other riders results in a nasty fall and a time penalty while leaving the road results in you slowing down, and eventually crashing if you don't get back on the track quickly enough. Graphics are fair, with a reasonable back ground and well-animated bikes.

There are two timers, giving you your current lap time and best lap time, and your race time. New lap records or race records

are announced on a display board.

Apart from the minor fault that I'm sure you can't start a bike off in shift gear, *Speed King* is excellent and exciting. Well worth looking out for.

Program: *Speed King*, 64
Supplier: Digital Integration
Price: £24.95 (pb), £14.95 (disk)

Graphics: *****
Sound: *****
Gameplay: *****

Bits and pieces

By far the most original idea to crop up this month, Mad Doctor is a joy to play, hilariously funny and imaginatively programmed.

You play Franz Johann Black-wasp, the gnomish leech whose task is to assemble the gnomes' equivalent of a jaguar posse — stitching

together bits of bodies to make a monster. The action takes place in several dense 3-D locations, joined by a map screen through which your little figure moves under joystick control.

There's a command list through which you can enter directions such as OPEN GRAVE, GET BODY, KILL VILLAGER and so on, and lots of strategic elements to consider — for instance should you are corpses from the graveyard, knowing that the bits you require might be a little stonily, or

should you risk the wrath of the villagers (located at the bottom of the screen) by looking for



fresh ingredients? Once your monster is assembled, there remains the challenge of unearthing it, following clues from your

grandfather's old book and of demonstrating it to the villagers, at which point you'll either be hailed as a genius or flogged as a monster depending on the quality of your handwork.

Chambably funny and end-lessly inventive, dig up a copy at once.

Program: Mad Doctor, 64
Supplier: Creative Sparks
Price: 15.95
Graphics: ★★★★★
Sound: ★★★★★
Gameplay: ★★★★★

Chambers of Cylu

Just to prove that 3D-stereoscopic graphics are possible on the 64, Cylu gives a 3D screen display, the left hand side of which consists of detailed, single-colour chambers. On the right hand side are various status displays giving the fast efficiency and inventory of Cylu, the bizarre hopping biomechanoid hero.

Your task is to guide Cylu through the chambers, which are filled with mysterious artifacts, looking out for foot pads while searching for 24 hidden objects



which have to be deposited in the Master Containers. Once all the objects are found Cylu becomes

the new leader of the people of the 3D. This is presumably a Good Thing.

Fivefold for various sections of the maze, until removed by depositing the correct key items in the computer. There are also teleport terminals scattered about, if you can figure out how to use them.

Options include GET/DROP ENAMEL-USE objects, and SAVE/LOAD game, which you'll probably need since it seems pretty complex to me.

This one is brilliant. Let's hope we see more of Cylu.

Program: Cylu, 64
Supplier: Fantasy
Price: 12.50
Graphics: ★★★★★
Sound: ★★★★★
Gameplay: ★★★★★

Pedal power

Gallies of Tourmalin/En Galloway jumps' as a series of Pedaler re grand leaper/Sprint final a Farrow... Tour de France, tour de France...

Amateur's bike racing epic captures the spirit of the event just as well as Kraftwerk's song of the same name. The graphics are like those of Amadeus, as you guide your bike around the cir-

cum scrolling screen representing the stages of the course.

The competition mode allows



up to six players to compete, one at a time, each selecting a country to represent and a bike and jersey colour which will affect his performance — some

are better on corners, some on straights, and so on. Control is by joystick or keyboard, wiggling gently to get moving and using SHIFT or the fire button to allow steering.

The game is wonderful to watch, and brilliantly programmed, but once you've got the hang of controlling the bike there doesn't seem to be much to it. I couldn't imagine wanting to complete all eleven stages in one session. The title details make it all worthwhile though — the map of France from which you

select the stages you want to race in, the French screen displays, the trouble you take when you ride off the road. Check it out if you think you're ready for a marathon.

Incidentally, Ball and Florian say "Bachtopop is almost finished".

Program: Tour de France, 64
Supplier: Activision
Price: 19.99
Graphics: ★★★★★
Sound: ★★★★★
Gameplay: ★★★★★

Trumped

Another combat flight simulator, very much along the lines of Fighter Pilot or F15 Eagle, Mig Alley Ace doesn't lack many features not seen before. The graphics and animation are average at best, with a horizon line which, instead of banking smoothly as you plane

maneuvers, breaks up into a stairway effect which is worse than any other flight simulator I've seen.

Above all Mig Alley Ace has to offer which is new is the unusual split-screen effect. The top half of the screen shows the view from the cockpit of the plane you control, and the lower half shows a similar view from the cockpit of one of your wing-men.

Anyone interested in combat

flight simulators will probably already have a program more



improvisational than this one, and probably much better graphic-

ally. Since the Korean War ending adds little to the game itself, I can't see this one giving much competition to established favorites such as Digital Integration's Fighter Pilot.

Program: Mig Alley Ace, 64
Supplier: US Gold
Price: 29.95 tape, 34.95 disk
Graphics: ★★★★★
Sound: ★★★★★
Gameplay: ★★★★★

THE 64 SOFTWARE CENTRE

1 Princeton Street, London WC1

01-430 0954

SOFTWARE PRICE LIST — Prices include VAT

d = disk c = cassette r = cartridge

Accounting systems (IBM use)

Analysys Systems — Sales Ledger	d	£75.00
Analysys Systems — Purchases/Minimal Ledger	d	£75.00
Analysys Systems — Cashbook	d	£75.00
Comint — Cashbook (with minimal analysis)	d	£84.95
Comint — Cashbook (with minimal analysis)	d	£55.95
Comint — Final Accounts	d	£94.95
Comint — Final Accounts	d	£58.95
Comint — Cashbook/BS&I/Final Accounts	d	£88.95
Comint — Cashbook/BS&I/Final Accounts	d	£88.95
Comint — Accounts Package	d	£76.00
Microcomp — Cashbook	d	£155.00
Stark — Type 64 64	d	£48.95
Del — Invoice Generator II	d	£24.95

Stock Control systems

Practico — Inventions 64	d	£25.95
Comint — Stock Control	d	£24.95
Comint — Stock Control	c	£19.95
Analysys — Stock Control	d	£75.00

Home applications

Comint — Home Accounts	c	£19.95
Comint — Home Accounts	d	£24.95
Comint — Combined HomePack	d	£29.95
Comint — Combined HomePack	d	£29.95
Fieldmaster — Home Accounts	d	£19.95
Address — Checkbook Manager	d	£19.95

Database Filing Systems

Hamlet — Storyfil	d	£19.95
Fieldmaster — Mail base	d	£78.95
Bit — The Categories	d	£125.00
Practico — Practico 64	d	£64.50
Practico — Superbase 64	d	£80.00
Practico — Superbase 64	d	£78.95
Comint — Database	d	£24.95
Comint — Database	c	£19.95
Comint — Mailer	d	£19.95
Comint — Mailer	d	£19.95
Fieldmaster — Record Card	d	£19.95
Del — Superfile	d	£14.95

Spreadsheets

Wasic — Easy Calculus	d	£49.95
Wasic — Advanced Calculus	d	£90.00
Practico — Practico 64	d	£44.50
Practico — Practico 64	d	£39.95
Practico — Practico II	d	£69.95
Supersoft — Basiccalc 1	d	£21.00
Supersoft — Basiccalc 2	d	£49.95
Fieldmaster — Worksheet	d	£19.95

Word Processors

Simple — Simply Write	d	£40.00
Simple — Simply Write	d	£40.26
Hardware — Reporter	d	£42.95
Fieldmaster — Pagenwriter	d	£29.95
Bank Street Writer	d	£65.00
Practico — Superprint	d	£69.95
Supersoft — WoodPrinter	d	£18.95
Supersoft — WoodPrinter	d	£13.95

Utilities

Address — Librabasic	d	£19.95
Address — Char 64 64	d	£24.95
Address — Char 64 64	d	£12.50
Address — Graphics Designer	d	£19.95
Autobooks — FORTH 64	d	£29.95
Word compiler	d	£50.00
Hamlet — Menu 64	d	£24.95
Hamlet — Form 64	d	£24.95

Hamlet — Graf 64	d	£29.95
Fieldmaster — Printer printer	d	£14.95
Communicator — Gemini Basic	d	£67.50
Quint — GC Basic	d	£97.50
Practico — 64 Editor	d	£19.95
Supersoft — Modem 64	d	£27.50
Supersoft — Voice	d	£54.25
Supersoft — Mike Assembler	d	£58.80
Supersoft — Zoom monitor	d	£14.95
Supersoft — Toolkit 64	d	£9.95
Supersoft — Toolkit 64	d	£11.95
John — Turbo microformatter	d	£14.95
Antisimon — The Designer's Penpal	d	£11.95
Jetpack compiler	d	£26.95
FP — Pascal 64	d	£14.95
Orbit — Basic Lightning	d	£14.95
Orbit — Basic Lightning	d	£14.95
Orbit — Machine Lightning	d	£24.95
Orbit — Machine Lightning	d	£20.95
Talora — Pascal 64	d	£17.95
Talora — Pascal 64	d	£19.95
Jetpack — 1641 Hook 64	d	£69.95
Eric — First foot	d	£59.95
Diagrama Pascal	d	£24.95
Wordfound — The Printshop	d	£54.95
Wordfound — Postshop graphics designer	d	£29.95

Simulations

Flight simulators		
Microscope — Solo Flight	d	£14.95
Sublogic — Flight Simulator I	d	£49.95
Sublogic — Flight Simulator II	d	£42.95
Supersoft — Intermedia Pilot	d	£19.95
Supersoft — Intermedia Pilot	d	£11.95
Activision — Space Shuttle	d	£11.95
EA — Sky Fox	d	£12.95

Ww

Ww — Knights of the Desert	d	£12.95
Ww — Battle for Normandy	d	£14.95
Ww — Tigers in the snow	d	£12.95
Ww — Camel Force	d	£65.00
Ww — Geostorage	d	£39.95
Ww — Breakthrough in the Ardennes	d	£65.00
Ww — Gato 64	d	£44.95
Ww — Woodward	d	£44.95
Ww — Field of Fire	d	£44.95
Ww — Aeroforce	d	£24.95

ALL IN STOCK NOW — Callers welcome
(10am — 5pm including Sundays)

Mail Order — Check or PO — add £2 for items over £20 otherwise.
Credit cards (Access/Visa) — phone or write. Immediate despatch.

The 64 Software Centre, 1 Princeton Street, London WC1

Please supply the following items:

1. _____ City — 01 £ _____
2. _____ City — 01 £ _____
3. _____ City — 01 £ _____
4. _____ City — 01 £ _____

TOTAL £ _____

POSTAGE £ _____

TOTAL £ _____

Name _____

Visa/Access Card No. _____

Address _____

Date _____ Signature _____

BLAZING lights accelerate past your eyes as you barrel from the launch tube of the Master Ship. The force mauling you to your seat is relentless as the afterburners of your Vulture fighter build to full power.

After what seems ages of blinding pain you slow into the void of space, and realize you can relax for several minutes until you pass through the atmosphere of Fractalus to a potentially deadly confrontation with the Juggi. Several minutes to reflect on what brought you to the front line of mankind's bitterest conflict is a millennium...

The war began when the first ships reached the star system of Typhi Vad Norcolli Pactus in the farthest reaches of our galaxy nearly five years ago. There they encountered the Juggi. Ki Kachanski who received our friendly overtures with murder and treachery — the war against the Juggi had begun. Of course, in a system geared for peace, the Juggi took the early advantage, pointing our troops back with their force, suicidal tactics and preference to do battle on the most hostile planets of the galaxy.

Our navy, the Etherscope, are slowly gaining the advantage in space, but that's little more than half of the battle since the Juggi

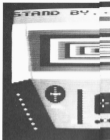


Your mission begins...

a redundant flyer left to make a living blasting the rocks of hellish worlds and scooping the rare minerals into your cargo holds. The closer you got to the war was the 1800 holotape bulletin until that fateful day your call-up papers dropped into your cockpit with a soft plop that belied the importance of their contents.

It would seem that some gold-headed SITH of an admiral decided that most of the spaces you created, survived for hours until their air ran out or were killed by the alien environment.

The ideal solution was to send trained Air



RESCUE ON FRACTALUS

Fearless Ken Matthews takes on another deaf-defying mission in the depths of space... join him as he cuts through the acid mists and approaches a hostile world...

have dug in on the planets too hostile for human habitation and though our spare pilots are the best, they are at a severe disadvantage inside a planet's atmosphere.

Here they are buffeted to gain force winds or ripples of acid rains and gases, as they fly through torques mountain passes under hails of laser fire from Juggi encampments. Needless to say, in this unfamiliar environment, losses are heavy.

Several years ago the Etherscope disbanded the Air Fleet division, and there you were.

Pilots in Vulture fighters to rescue the floors and, hopefully, take a few Juggi out at the same time. Sacrifices your skills were at a premium and you were stupid enough to lose a forwarding address...

So here you are, approaching Fractalus, the horrid hell-hole on the front line. Clouds of acid gas, the hardest terrain anywhere and Juggi fire everywhere around your hapless colleagues.

The Vulture, now beginning to align for entry into the atmosphere, is a good, solid

fighter capable of mach 7.2 on its turbojets and is usually armed to the teeth. Unfortunately, to hold the passengers you hope to collect, almost all of the weaponry has been removed, leaving only the Dinc Mirror Shield essential for those tin bumps with mountains and the Anti-Matter Bubble (AMB) generator (AMB) which at least is capable of handling out deadly punishment. The AMB is just right for the job though since it doesn't need to hit so dense — just get close. Ideal for fighting in those tight turns between the myriad peaks of Fractalus.

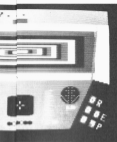
Well, the stars have all winked out and the full temperature is falling rapidly as you descend into the clouds of acid vapour that pass for air on the dirt-pit. Sensors will pick out the mountains though and you'll fly at full



visibility, at least as long as day-light lasts.

A high-pitched Moop tells you you've located a downed ship — no visual on the screen though — probably just spotted down in the fold in the rocks a couple of clicks ahead — Now! a burst of light and the landing screen that marks a laser hit on your shields — your war has begun, ready and willing or not...

IF THE FIRST part of this review sounds



CTALUS



like a film strip, that's because *Rescue on Fractalus* is the first Activision game licensed by Lucasfilm, who have given us some of the most exciting and entertaining movies of recent years.

Your mission is quite simple to rescue as many pilots as you can, use your boosters to return them to your mother ship and re-arm for your next tour of duty.

The screen shows show you, better than I can describe, just how good the 3-D terrain effects are and just how good your reactions will need to be if you are flying between those peaks at full speed. The backgrounds are generated by a random mathematical process known as "fractal" — hence the title of the game.

Unlike many flying "simulations", the massive panel of instruments, lights and controls all have a purpose, but don't panic — they are all simply explained in the manual you get with the game.

The game has many levels of play, and you can begin where you like. The higher levels are

set closer to the equator of the planet where the enemies are thicker on the ground and daylight lasts only a few minutes at a time. At night you must fly on instruments alone.

You would be best advised to begin at the lowest levels where there are few enemies and you can learn the breadcrumb trail needed to control the Mother Ship. Rescuing the pilots is quite easy, just land within range and turn off the ship systems, whose radials now would fly the pilot, and the thermal chapski will be sent springing towards your craft. He will politely knock on the airlock until you let him in. Once you have collected at least half of your quota of pilots the mother ship will reappear and you can "boost" back at will — you won't be "penalized" to the next level of play until you have your full quota though. Any extra souls you rescue are worth a healthy bonus as are any "souls" you pick up — really noted by their purple helixes.

Combat can be quite tricky because of the very tight response of the craft, which makes it hard to line up a gun emplacement, or the particularly evasive insect-like saucers that fly at you above level four. It does take a little time for the enemy to lock onto you though, and, since your instruments give you a warn-

GAME: Rescue on Fractalus
MICRO: CBM 64
PRICE: £9.99
SUPPLIER: Activision

ing of this, you have time to avoid a hit by breaking off and lining up again.

The game is ended by using up all of your energy or by mistakenly attempting to pick up a Juggo pilot (green helixes those), who will pound your windscreen in unless you're quick enough to fly him first. If your energy is getting low you can "boost" back to the Mother Ship if you've got enough pilots aboard, or you can use the small bit of energy each pilot carries and minimum threat to get you to your next target.

The planet is waiting, your fighter is ready, the Juggo emplacements are alert... do you have the skill and courage to attempt a Rescue on Fractalus? ■



... watch for enemy bases ...



... and handle saucers ...



... locate the downed fighters ...



... rescue the stranded pilots ...



... and if you're unlucky, never fail to fly the saucer!

AT LAST— AMIGA

Commodore's Amiga computer has been launched in America to an enthusiastic reception. **Matthew Leeds** reports from San Francisco; **Chris Jenkins** puts the UK view

COMODORE International announced on Tuesday, July 23 the formal release of the long awaited AMIGA. A3000 PC. In a Mac-like gala at New York's Lincoln Center, over 2000 people were treated to an introduction to the computer that many software developers have called 'the start of a new generation'. Commodore hopes the AMIGA will change its image from that of a mass-mechanizer of under MSB game machines to that of a serious business computer manufacturer.

Commodore debuted the AMIGA in San Francisco two days later at SIGGRAPH. The launch was subdued from the moment the doors opened. In the words of one Commodore staffer, "We expected that we would get a good response, but nothing like this".

There is no question that the AMIGA is a technological leap in both capability and cost. The AMIGA runs the 16/32 bit 68000 micro-processor, of the series found the Apple Macintosh and Sinclair QL, and uses three special chips to control its powerful graphics, sound, windowing, and multi-tasking capability. The first thing you notice while watching the machine in operation is its speed. Since the display is memory mapped video, the CPU does not need to calculate each pixel during every screen refresh. This frees it for other tasks, and the result is fast action in all respects.

The machine comes with 256K of RAM, and has an expansion port dedicated to the addition of another 256K of RAM at the front of the machine.

There is also 128K of write protected RAM used to store the operating system. Commodore has said that at some time in the future they might offer ROM chips containing a 'finalized' version of the operating system, however I think that this would be a



bad idea. Look at the problems the Mac has had with its locked-in ROM. The upgrade to the new Mac IIGX will require swapping chips, most likely through a dealer. It's far easier to just buy a new version from disk.

The keyboard has two programmable function keys, two special function keys, a 37 key numeric pad, cursor keys, and a 'hoty' key. The hoty is fairly good, with only a little bounce. There is a caps lock LED. The keyboard is detachable, and connects with a standard phone plug. They are nicely fold down feet, just like on the IBM. In fact, visually the AMIGA looks quite a bit like the IBM PC.

Multitasking

The single 3 1/2" disk drive is built into the main unit. It is a double density, double sided drive, with a formatted storage capacity of 888K. It uses Direct Memory Access read/write for fast data transfer. There is no room in the main unit for additional drives, however it is possible to daisy chain three additional drives, either 3 1/2" or 5 1/4". Most on the 5 1/4" drive line.

The AMIGA provides a powerful multi-tasking operating system and a user interface that features multiple windows, multiple screens, icons and menus, fast graphics and animation, great sound, and a true button mouse. The system is expandable to over 8 Mb of RAM.

The display outputs are RGB, digital or analog, composite video, and RF modulated video for connection to a TV. Recommended display is the RGB analog. Other output ports include a true RS232 serial port, Commodore parallel (non-compatible), system expansion bus, stereo sound (DCA connection), and controller ports (mouse, joystick, graphics tablet, etc.).

The display resolution starts at 320 x 200 in 12 colors, and goes up to 640 x 400 in 16 colors.

Playing some programming tricks, it's possible to get all 4096 colors on the screen at the same





time is 640 × 480 mode, but you lose quite a bit of speed. There are eight sprites, sixteen pixels wide and any height, with collision and priority controls. The audio specs are: Signal to noise ratio is 70 db, distortion less than 1%, frequency response 20-4000 Hz, impedance 800 ohms, four channels each capable of playing a full chord, amplitude or frequency modulation or both.

Included with the system will be the operating system software called AmigaDOS, a new interface called Lattice that is icon driven and uses a two-button mouse, Microsoft BASIC, customized for the AMIGA, a system manual on disk written by Microsoft, and a text to speech package to let her talk or translate voice with unlimited vocabulary. Also included will be a Command Language Interface for programmers and sophisticated users who prefer direct access to DOS. Dealers will have a choice of handling a low-cost paint program called Graphics4 by Island Graphics, and a word processor called Striped by Astromark.

Consumers have also announced several peripherals. The A800 monitor has RGB analog and digital inputs as well as a composite video input. Its bandwidth is greater than 10 MHz, and it has a 19mm dot pitch. Price will be \$499.00. The A900 monitor is Hayes compatible, 1280 or 960 lines, auto-contrast, with most of the expected " bells and whistles." No price was mentioned.

Emulation

There are also several disk drives available. There are two types of 3½ drives. If you are buying your first additional drive, it will not require a separate power supply, as it will derive its power from the computer. However any additional drives will require their own power supplies, hence two types of drives. Also available is a 5¼ drive, and software that will allow it to read/write MS-DOS format. Commodore has also stated that the software will allow for IBM PC emulation without the use of a coprocessor. That's right, they claim

to have run 1-2-3, Flight Simulator, DBase III, MultiPlan, and other packages right off the shelf. Although prices were not being given as Yipes' the additional 3½ drives were quoted at around \$300, and the 5¼ at \$400.

Several third party hardware developers have announced products for the AMIGA. A-Squared Systems of Oakland, California has produced the AMIGA EVE, a color video digitizer. This device will capture a video image in real time @ grey levels or in three frame scan lines and allows you to manipulate the hue, saturation, luminance and brightness over the computer's full range of 4096 colors. It is fully compatible with all of the paint and graphics software available for the AMIGA.

Digitizing

Karis Corp. announced the ProMouse. This is a battery powered cordless pen that uses a graphics tablet to allow a more natural movement when digitizing drawing or other flat art.

Toscan has several products available for the AMIGA. The TCart is a multi-function expansion card that can contain up to 1 Meg of additional RAM. It features a serial port, clock/calculator or battery backup, hard disk interface, parallel printer port, and has its own power supply. The J-Disk is a 20 Meg 3½ inch hard disk for the AMIGA. The T-Digit is a 20

Meg tape backup unit that can be linked to the AMIGA through a floppy disk port. It has its own power supply. Toscan also announced the FontMaster, a Hayes compatible emulator with selectable 500, 1200, or 2400 baud rates.

Games

There is also quite a bit of software for the AMIGA. Word processing, database, spreadsheet, business graphics, accounting, and telecommunication packages are all being available on release of year's end. Several languages and programming tools have also been announced. Lattice, Inc.'s compiler, MS-DOS cross compiler, LTRK cross compiler, VAX cross compiler, LMK, LSK, and LSP will be available at once as will TLC (LCCO from The Lip Company. Microsoft is releasing an AMIGA assembler/linker, Cambridge LSP 68000, and MTC Pascal 6800.

The AMIGA is a wonderful game machine. Electronic Arts will release over a dozen titles by Christmas, six of which will be written just for the AMIGA. Sublogic has a new flight simulator called Radar Raiders; Mindscape has a mystery game called 'Woe De'; and Hayden has put out 'Savage IV' with nine levels of play and a library of over 50,000 words.

Music software will reach new highs on the AMIGA's four channel stereo sound. Cherry

FORTHCOMING SOFTWARE

Cherry Lane Technologies

-
-
-

Island Graphics Corp.

- HeadStart
- A-Squared
- Maintaince

Island Int'l

Lattice, Inc.

-
-
-
-
-
-

The Lip Company

Infonex Ltd.

Electronic Arts

-
-
-
-
-

Hayden Software Co.

Mindscape Inc.

Sublogic Corp.

Island Graphics Corp.

-
-
-
-

Chang Laboratories

Astromark

Synapse Software

Electronic Arts

Harmax

- Screenwriter
- Muscraft
- Textus
- Graphcraft

Prime Shop

- Amiga Pro
- Assembler
- LSP 68000

Pascal

Pascal

Lattice C

GVH/MF-DOS

Calpis

C-Yan

LMK

LSK

TSM

TLC Logo

Innovative Systems

Syzygy

Maths Madness

MS-DOS Cross

Aykon

Milano

T-Cross

Supra

Deja Vu

Halley Project

Radar Raiders

Mindcraft

EnableFile

EnableCalc

Manager

EnableWrite

Raps to Rhyth

Textcraft

CalcCalc

Video Set

Background music

Music printing

Music teaching

Music sequencing

Paint program

Personalized printing

Colour video digitizer

Macro-assembler

AI language

Language compiler

High-speed Pascal

Language compiler

Cross-compiler

Cross-compiler

Cross-compiler

Software development tool

Multi-language screen editor

Text file handling

AI and turtle graphics

Complete range of adventure

games

Arctic game

-

Academy game

Chico-type game

Federico adventure

Empirebuilder simulation

Chess simulation

Graphics adventure

Space mission simulation

Basic flight simulation

Automated drawing

Database

Spreadsheet

Office management

Word processing

Accounting packages

Word processing

Spreadsheet

Automated graphics

Linn Technologies will release several music creation packages. Sequencing, scoring, editing, and printing musical compositions will be supported. MIDI interfaces will also be available. The AMIGA has powerful sound sampling capabilities, and there has been talk of a digital sound sampler. Marc Aaron, Center of MusicMind (Workbooks for the blind) says that with the proper software, the AMIGA should be at least as good as the EmuMidge digital sound sampling keyboard.

Distribution of a high end computer may be a problem for Commodore. Dealers are wary of getting burned after Commodore cut the price of the C64 from \$295 to \$200 and sold it through mass merchandisers. Although

Commodore has made no announcements on a dealer network, Frank Leonard, Commodore vice president of sales/business has been meeting with members of the Association of Better Computer Dealers (ABCED) and promising that the AMIGA will be kept out of mass market channels. The AMIGA will need computer specialists ready for proper end-user support and it would be self destructive for Commodore to allow mass market merchandisers to sell it.

One solution to the marketing problem is Value Added Resellers (VARs). These dealers integrate hardware and software into vertical market systems that meet specific needs. The potential applications of such systems is limited only by the imagination of

programmers and developers. Architects, motion picture and television producers, fashion and textile designers, map and chart producers, operators, and CAD/CAM applications are but a few of the possibilities. Interior designers, landscapers, musicians, art directors, commercial artists, engineers, and educators will find a variety of unique applications waiting for their use. The AMIGA brings the power and speed of computers coming ten times as much within the reach of small business.

Commodore is already "not talking" about the AMIGA II, a multi-user system that will address the needs of big business. There is already no local area network capability for the AMIGA, and a new computer using the

TECHNICAL DATA

AMIGA

Microprocessor

Speed

Memory

Expansion

Disk capacity

Display

Color

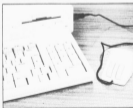
Resolution

Keyboard

Mouse

I/O Ports

- 68000 Motorola
- 7.16 MHz
- 256K RAM
- 192K ROM
- Up to 512K internal
- Up to 8M external
- 800K 1/2 inch
- RGB analog/digital
- Composite video
- RF modulated (TV)
- 4096 possible
- 320 x 200
- 320 x 400
- 640 x 200
- 640 x 400
- 89 keys
- Numeric keypad
- 4 channels
- Stereo
- RS232
- Centronics parallel
- External disk drive
- Controller ports (2)
- 2 feature mouse
- joystick
- Light pen
- Graphics tablet
- Optical scanner
- Game paddle
- Video
- RF
- RGB
- Graphics expansion bus
- System expansion bus
- Audio I/O ports
- Keyboard
- Via data to voice
- Male or female voice
- Amiga DOS
- Installation overlay
- Manual
- System manual
- Pascal, Logo, C, Assembler, etc.
- 256K RAM pack
- Frame grabber (video)
- Digitizing tablet
- MIDI interface
- Hayes compatible modem
- 1 1/4 inch drive
- 1 1/4 inch drive w/ 800000 B/W capability
- Hard disk w/ tape backup
- 8M RAM multi-function expansion board



• Suggested price without monitor: \$1295.00 • Availability is anticipated in the U.K. in January • No price details yet available.

68020 would fit the bill nicely.

What this all adds up to is a colour Macintosh with 256K RAM, MS-DOS capability, true multi-tasking, stereo sound, and an open architecture far in order \$2000.00. Commodore has committed itself to releasing all the technical specs and info that third party developers need. The expansion bus has full access to the 68000, and there are no design imposed limits to the potential of the machine. There will be a lag in the release of some software that you might want, but with access to the MS-DOS library, I would imagine that most users will survive until applications that take full advantage of the AMIGA's capabilities arrive. Commodore has come up with a winner. ■

UK VIEW

COMMODORE'S AMIGA may be the first machine to live up to the promise of the personal computer concept.

Based around a graphics chip, designed by the Amiga Corp which was then bought out by Commodore, the Amiga has no developed into an open-ended, incredibly powerful system based on the popular 68000 microprocessor.

The aspect of the Amiga which makes it



so much better than the Macintosh, G1, or IBM PC, is the design effort put into the three custom chips codenamed Agnus, Denise and Paula. These handle the memory control, input/output and screen routines, allowing the central processor to operate much faster.

Some of the hardware possibilities are even more impressive — IBM resolution good enough to run Lotus 1-2-3, D-Base and WordStar, completely open architecture enabling you to connect disk drives, printers, modems, video sources, a mouse, joysticks, lightpens, MIDI interfaces, memory expansions, and so on.

The operating system AmigaDOS, an adaptation by Metacomco of its Cambridge Zipos, sets no limitations to the number of files or directories the machine can handle, and supports the Amigaos windows/icon/mouse working environment. Offering powerful processing and a wide range of options to the small business user, uniquely powerful graphics and sound to the creative programmer, and a nearly religious experience to the game player, the Amiga seems to be all things in all time. At least the promise held out by the home computer industry of a machine combining work, play, education, communication and creative features in one package, seems to have been fulfilled. ■



ABasiC and AmigaDOS

Metacomco's contribution to Commodore's machine
Chris Jenkins comments

IN LESS than six months, Bristol-based Metacomco developed AmigaDOS, the Amiga's advanced disk operating system, ABasiC, the powerful language package, and a range of other software systems including assemblers, linkers, and systems of languages including Lisp and Pascal.

Metacomco specialises in 68000-based packages, and based the Amiga's multi-tasking operating system on its existing development, the Zipos package.

Founded in 1981, the company's first product was a Basic interpreter for the 6800, running on machines such as the IBM PC. Marketed by Digital Research as "Personal Basic", this product proved highly successful. Metacomco hopes that AmigaDOS will become a standard operating system for 68000-based machines, since it takes advantage of the power inherent in the microprocessor, yet is compact enough for personal computers to use.

Metacomco's development team was led by Dr Tim King, who demonstrated AmigaDOS and ABasiC to a small number of journalists at Metacomco's Bristol offices.

AmigaDOS is essentially a multi-tasking system. This means that while the disk system is taking care of routine data transfer, the user can be carrying on a number of independent operations.

The illustration shows a screen with seven tasks running simultaneously. Note that task three, the lower left hand window, is showing the status of each task. For instance, task five (iconic screen) is a screen editor. You could, for instance, search for an address in an address file while word processing in another window; the hierarchical filing system keeps files in multi-level directories.

AmigaDOS has many user-friendly features. For instance, the LIST command

tells you the size and status of each file, and the date and time it was filed. There is also a wide range of error messages, and typing WHY will expand on the error; for instance, while renaming files, CAN'T RENAME PETER AS PETER might arise, and typing WHY would produce, for example, LAST COMMAND FAILED BECAUSE OBJECT NOT FOUND.

ABasiC, which is to be sold as a separate option with the Amiga, is more advanced than the Microsoft Basic which will be bundled with the machine. It includes commands to handle the Amiga's powerful digital sound capabilities, low-res graphics, and hi-res graphics, as well as all the stand-



and programming commands one would expect of an advanced high-level language.

The instance, a few lines of ABasiC can allow you to define a box on the screen, tell the Amiga to monitor the input from the mouse, then print to the screen in such a way that moving the mouse draws graphic patterns. You can also control the hi-res graphics, phasing through the available colours and copying your patterns all over the screen to create some wondrous effects.

Metacomco's contribution to the Amiga may be just as important as the machine's revolutionary hardware design in making it the success it seems certain to be. ■

64 the six-four supplies co

p.o. box 19, whitstable, kent ct5 1tj
Access/Barclaycard orders: 0227 206289
...Number One For Choice...

64 has a wide range of products available from leading manufacturers at special prices. We also offer a full range of services to help you get the most out of your investment.

PERSONAL COMPUTERS

IBM PC compatible systems from £1200.00. Also available: software, printers, modems, mice, keyboards, monitors, speakers, and more.

SOFTWARE

Business software: accounting, word processing, spreadsheets, databases, etc. Entertainment software: games, graphics, etc. Educational software: languages, etc.

PERIPHERALS

Printers: dot matrix, laser, inkjet. Modems: internal, external. Mice: wired, wireless. Keyboards: standard, ergonomic.

TELECOMMUNICATIONS

ISDN terminals, modems, routers, etc. Also available: telephone equipment, fax machines, etc.

NETWORKS

Local area networks (LANs), wide area networks (WANs), etc. Also available: network hardware, software, etc.

SERVERS

IBM compatible servers, minicomputers, etc. Also available: server software, storage devices, etc.

SCANNERS

Flatbed, handheld, etc. Also available: software, etc.

TELETYPE

Terminals, modems, etc. Also available: software, etc.

COMMUNICATIONS

ISDN terminals, modems, routers, etc. Also available: telephone equipment, fax machines, etc.

SERVERS

IBM compatible servers, minicomputers, etc. Also available: server software, storage devices, etc.

SCANNERS

Flatbed, handheld, etc. Also available: software, etc.

TELETYPE

Terminals, modems, etc. Also available: software, etc.

TELECOMMUNICATIONS

ISDN terminals, modems, routers, etc. Also available: telephone equipment, fax machines, etc.

NETWORKS

Local area networks (LANs), wide area networks (WANs), etc. Also available: network hardware, software, etc.

SERVERS

IBM compatible servers, minicomputers, etc. Also available: server software, storage devices, etc.

SCANNERS

Flatbed, handheld, etc. Also available: software, etc.

IBM compatible systems from £1200.00. Also available: software, printers, modems, mice, keyboards, monitors, speakers, and more.

PERSONAL COMPUTERS

IBM PC compatible systems from £1200.00. Also available: software, printers, modems, mice, keyboards, monitors, speakers, and more.

SOFTWARE

Business software: accounting, word processing, spreadsheets, databases, etc. Entertainment software: games, graphics, etc. Educational software: languages, etc.

PERIPHERALS

Printers: dot matrix, laser, inkjet. Modems: internal, external. Mice: wired, wireless. Keyboards: standard, ergonomic.

TELECOMMUNICATIONS

ISDN terminals, modems, routers, etc. Also available: telephone equipment, fax machines, etc.

NETWORKS

Local area networks (LANs), wide area networks (WANs), etc. Also available: network hardware, software, etc.

SERVERS

IBM compatible servers, minicomputers, etc. Also available: server software, storage devices, etc.

SCANNERS

Flatbed, handheld, etc. Also available: software, etc.

IBM compatible systems from £1200.00. Also available: software, printers, modems, mice, keyboards, monitors, speakers, and more.

PERSONAL COMPUTERS

IBM PC compatible systems from £1200.00. Also available: software, printers, modems, mice, keyboards, monitors, speakers, and more.

SOFTWARE

Business software: accounting, word processing, spreadsheets, databases, etc. Entertainment software: games, graphics, etc. Educational software: languages, etc.

PERIPHERALS

Printers: dot matrix, laser, inkjet. Modems: internal, external. Mice: wired, wireless. Keyboards: standard, ergonomic.

TELECOMMUNICATIONS

ISDN terminals, modems, routers, etc. Also available: telephone equipment, fax machines, etc.

NETWORKS

Local area networks (LANs), wide area networks (WANs), etc. Also available: network hardware, software, etc.

SERVERS

IBM compatible servers, minicomputers, etc. Also available: server software, storage devices, etc.

SCANNERS

Flatbed, handheld, etc. Also available: software, etc.

This is the one for you

The

Commodore

HORIZONS

show

Saturday 26th and
Sunday 27th October
The Novotel Exhibition Centre
Hammersmith

Events • Competitions • Advice • Bargains

**More an experience
than just a show!**

We're organising a weekend of fun, information and bargains. There will be events for everyone to join in, advice centres to answer all your questions, competitions with great prizes, discount schemes and personalities.

We're providing extra catering and rest areas for those tired exhibition feet.

Plenty of bargains

We're encouraging all our exhibitors to bring lots of bargains and special offers for you.

A show with pedigree

The Commodore Horizons show is sponsored by Sunshine Publications, (publishers of your favourite Commodore magazine and Popular Computer Weekly) and Computer Marketplace Ltd., organisers of the Acorn User, SSGS Colour and Amstrad User Shows. So you can be sure it's going to be a great show.

**Miss the queues, save
money. Win a Koala
Touch Pad**

Use the coupon below and not only will you get into our 'fast' lanes and miss the queues but you save £1 per ticket as well. You also enter the prize draw and could win a Koala Pad Touch tablet too!

Computer Marketplace Exhibitions Ltd., Part of the Rushworth Daines Group, 59, Orange Street, London WC2H 7ED.

59, Computer Marketplace Exhibitions Ltd., Part of the Rushworth Daines Group, 59, Orange Street, London WC2H 7ED.

Please rush me _____ (Qty) adult tickets
at £2 and _____ (Qty) under sixteen
tickets at £1,
for the Commodore Horizons Show. I
understand I am eligible for the prize draw.
I enclose my cheque/P.O. payable to

Computer Marketplace Exhibitions Ltd.,

for £ _____

Name: _____

Address: _____

Postcode: _____

© 1992 Commodore Ltd. 01 980 902

MINTER MANIA

What's Yakk the Mairy been up to this month? Freaking out on lasers, drooling over the Amiga, and writing *Syncre 2* just for you . . .

WELL, TIME to fire up the Apple and do another of those columns for you lot. Keep the busy but Commodore Horizons on the page for days, and I have writing 'Syncre II' to be published as a listing . . . well, I saved myself a bit of work too, 'cos time it is going to be used as the basis of a sub-system of a game I'm writing at the moment. Play about with the music option — it's quite strange and pleasing in an odd way, it sounds a bit like someone just tinkering with a synthesiser. Fine for those who haven't got a synthesiser to tinker with!

Laser Zone

Speaking of synths, what about that new Amiga from Commodore, huh? I have reading the spec all just drooling. Seems that it's got a full sampling synth capability . . . means you can play any note you like into the system like sound of a can of Coke opening or your joystick breaking or your disk drive committing a mad error, or just anything and then make a tone out of it — pipe it back at any pitch, forwards, backwards, whatever. Those of you with that speech system from Amiga will know the sort of stuff I'm on about — but on the Amiga, with all that RAM, the quality of the sample will be much, much better. Still, the Amiga device is a good start for those of you who want to play around with sampling, but can't quite afford the Amiga! I must pick one up myself, next time I'm in town . . . which'll be sometime, actually, 'cos, Yakk etc' would have taken to regular trips to the Laserium, in London. I must give the Laserium a generous plug here, 'cos it is SO good. It's in the London Planetarium dome, an' you go along there on an evening and they play either Pink Floyd, or the a compilation of modern rock standards which they use got . . . and blow your mind with a really amazing laser show, projected into the middle of the dome. When it's all over it takes a while to return to Planet Earth . . . there was a massed invasion of Commodore the other day. Tony Dow that came down from Sheffield, we met up for a blast of the arcade machines in Lico Square and then hit the Laserium for a really great evening. If you get to London do give the Laserium a try. It's well worth it.

The got me 84 tipped that my status at the moment . . . have any of you got that *Hyper Sports*? The game itself is an excellent copy of the arcade game of the same name, but the reason I load it is just to listen to the loading music an' put it thru my stereo. That music is brilliant, it sounds almost as good as my Yamaha CS5M synth. It's the only game I've ever come across where I probably get more pleasure from listening to it load than from the actual playing. (Not that the game is at all bad, far from it — it's just that the loading theme is really amazing) . . . My second effort,



of the month has to be the 'springzzzzzz' out of *Thing* on a Spring. Lovely score, really Zoroastrian.

I will love my Atari 130, despite the fact that I don't have a colour monitor yet. Pity, 'cos I'd've liked to do a bit of light synthesiser to show at the PCW Show. Atari keep saying to me that they don't see why I need colour to get started, why can't I start in black and white? Writing a light synthesiser in black and white would be a bit like learning to play the guitar but not being allowed any strings! — Inevitably possible, but very, very difficult! . . . When I get my Amiga I hope Commodore any forthcoming with the colour monitor! Dow, back to the Amiga again . . . promises



Machine. Think of all the features you own married and there they are. Still, it don't cost cheap, an Amiga with colour monitor (which you'll really need to appreciate the capabilities) will be about a grand-and-a-half I reckon. For that reason I don't see the Amiga beating the Atari 130 too much — the base-level 256K AT will only be about £350, providing a cheap and extraordinarily powerful entry into the 16-bit world. 80000, we love you . . .

Commodore's CB should be available soon — and much cheaper than I forecast last time. An CB9's really good value. If you want the even RAM and Basic 7.0 you get them, plus you can keep all your 64 games. Price to see the big C getting it right.

By the time you read this *Horizon* an *Arcturus* should be out in the shops, for both 64 and Atari, out of Activision. Definitely worth going on the Atari, but I should check out the CBM version first to check that it hasn't lost too much speed in the conversion. I haven't seen it yet so I can't comment on the '94 version, although Activision are just starting to advertise it — and quoting me on their advert! Cheeky! They didn't even ask me! Still, even on the Atari is good. I do hope the 64 version is, too.

Syncre

In the Oldies-but-Goodies dept, now — does anyone remember *256k* from Supercade? This is a version of the arcade game Qix — a strange, abstract creation . . . the Yakk and the 2-Ton Sack soon until half-11 in the morning consuming quantities of Newcastle Brown and playing this one, the other night. The game is very simple by today's standards — no flabby intro, no title, just these weird abstract visuals, but we found it to be very addictive. Just the sort of thing you might see in the Bedford-to-Clear section in one of those infernal chain stores. By it — maybe you'll like it.

Things to Do for Commodore Owners this month:

(1) Sit in a dark room. Place some iron blades on your stereo, which is up REALLY LOUD and sit and play *Hyperzone*.

(2) Get a modern and hold a Hi-Phone-800 competition.

(3) Get a mate round and race his turbo-type leader against the Commodore disk drive.

(4) Get knocked over by the bull again at *Rockball*.

(5) Drool over the Amiga.

That's all for this month — I have my party to finish, and some late-night *Nothing To Do* music. Next month — who knows? I should have seen a bit more of the latest stuff — and finished my own latest too I hope — and I don't now allow will be over? This is the Yakk, cheer it down the Apple and leggit! on the Net . . . ■

IT MAKES DRUMMING SOUND LIKE HARD WORK

SYNDROMIC MUSIC

SYNTRON DIGIDRUM

The Syntron Digidrum is an exciting professional digital drumcomputer designed to operate with the Commodore 64.

Using two digital sound samples which are encoded onto software the user has a programmable drum machine with a sound quality many times the price.

Easy visual grid programming, hear the sounds you enter, 51 patterns available in memory plus 10 songs linking 500 patterns together are possible with full copy, insert and delete functions.

Whether you want to play along to it, do demos and record with it, sing along and dance to it or just enjoy programming it — The Syntron Digidrum — Get it!

The Syntron Digidrum comes complete with a hardware user port connector, audio out, trigger out, easy to follow user's guide, software with the first eight digital samples including Crash Cymbal, Snare Drum, Bass Drum, Floor Tom, Hi Tom, Mid Tom, Open Hi Hat, Closed Hi Hat and programming options. The software contains a complete set of combination patterns and songs — All this for just \$95.00 inc. VAT.



THE BBIG BBBLACK BEAT BBBÖX

I would like further information on the Syntron Digidrum

I would like to order my Syntron Digidrum(s)

NAME _____

ADDRESS _____

Syntron Digidrum — Disk version of £85.00 inc. VAT

Cassette version of £95.00 inc. VAT

Please add £2.50 for packing/postage/insurance.

I enclose a cheque/postal order — made payable to SYNDROMIC MUSIC — to the value of £ _____

All orders should be sent to SYNDROMIC MUSIC, 55A Grove Avenue, London, W10 2AB

SYNDROMIC MUSIC GUARANTEE

Let us Bank your money until the Goods are ready for Dispatch.

Please allow 21 days for delivery

don't ever hear such a sound!

THE FABLED CASSETTE

50

**50 SUPER
COMPUTER
GAMES ON
ONE CASSETTE**

FROM
cascode

NEAR
TOTAL
CALCULATOR
WORTH

WILL
TAKE YOU
UP TO
THE
MOONS

YOURS
FOR ONLY
£9.95

FREE

30 Day, Multifunction
Calculator Watch

- Minimal 12 and 24
- Four time modes
- Calculator mode
- Calculator watch
- Alarm mode



CASSETTE IS AVAILABLE ON
CASSETTE AND AT ALL CASSETTE SHOPS
WRO 121 0482 J & B
Spectrum www.spectrum.com

Commodore 64

Why not see some Europe from destruction? It's **ROCKET LAUNCH**, the thrilling war game that reproduces a European map. More excitement? Try rearing your nose under an alien's **SALACIC RHYTHM**, and escaping back to your spaceship! Join two of the great games on your Commodore 64, featuring high resolution, and user-defined graphics, sprites, sound and music.

1. Black Hole	11. Star Wars	21. Soccer
2. Chess	12. Star Wars 2	22. Soccer 2
3. Chess Marathon	13. Star Wars 3	23. Soccer 3
4. Chess Marathon 2	14. Star Wars 4	24. Soccer 4
5. Chess Marathon 3	15. Star Wars 5	25. Soccer 5
6. Chess Marathon 4	16. Star Wars 6	26. Soccer 6
7. Chess Marathon 5	17. Star Wars 7	27. Soccer 7
8. Chess Marathon 6	18. Star Wars 8	28. Soccer 8
9. Chess Marathon 7	19. Star Wars 9	29. Soccer 9
10. Chess Marathon 8	20. Star Wars 10	30. Soccer 10
31. Chess Marathon 9	32. Star Wars 11	33. Soccer 11
34. Chess Marathon 10	35. Star Wars 12	34. Soccer 12
36. Chess Marathon 11	37. Star Wars 13	35. Soccer 13
38. Chess Marathon 12	38. Star Wars 14	36. Soccer 14
40. Chess Marathon 13	39. Star Wars 15	37. Soccer 15
42. Chess Marathon 14	40. Star Wars 16	38. Soccer 16
44. Chess Marathon 15	41. Star Wars 17	39. Soccer 17
46. Chess Marathon 16	42. Star Wars 18	40. Soccer 18
48. Chess Marathon 17	43. Star Wars 19	41. Soccer 19
50. Chess Marathon 18	44. Star Wars 20	42. Soccer 20

EXPRESS DELIVERY GARDEN NOW!

and get your vital applications sorted
with every LAUNCH 50!

Name _____

Address _____

Post Code _____

Country _____

Please FREE. Goods will be dispatched within 7 days.

I enclose a cheque I wish to pay by

credit card to

Commodore 64 (Commodore 64) (Commodore 64) (Commodore 64)

Commodore 64 (Commodore 64) (Commodore 64) (Commodore 64)

Commodore 64 (Commodore 64) (Commodore 64) (Commodore 64)

Commodore 64 (Commodore 64) (Commodore 64) (Commodore 64)

Commodore 64 (Commodore 64) (Commodore 64) (Commodore 64)

Commodore 64 (Commodore 64) (Commodore 64) (Commodore 64)

Commodore 64 (Commodore 64) (Commodore 64) (Commodore 64)

Commodore 64 (Commodore 64) (Commodore 64) (Commodore 64)

Commodore 64 (Commodore 64) (Commodore 64) (Commodore 64)

Commodore 64 (Commodore 64) (Commodore 64) (Commodore 64)

Commodore 64 (Commodore 64) (Commodore 64) (Commodore 64)



C128



TYPE IN SYNCHRO II and you can win great prizes! Play the game, write down your highest score with the signature of a witness, and send it with your name and address on a POSTCARD to: **SYNCHRO II, Commodore Horizons, 12122 Little Newport Street, Lanston WC2.**



Prizes include **100** copies of Paul Payer's book, *Machine Code Games Recipes* for the Commodore 64; **100** vouchers giving £1 off the price of a year's subscription to *Commodore Horizons*; and **100** unique Commodore Horizons badges. Come to the *Commodore Machine Show* at the *Hammerhead* (Newport, Lanston) on *Saturday or Sunday 26th/27th of October*, and you could win a fabulous *Commodore C128* or one of the *Commodore disk drives*! So there, or be square!

SYNCHRO

WHEN YOU see the game, the first option is to set the skill level. You do this by using the F7 key. Press F1 to start off the game when you're ready.

Game Objective The objective of the game is to match the velocity of the moving "bits" on the display in such a way as to render static all the little spheres that're bouncing around the screen.

Controlling the Game Using the joystick in part 2 without the buttons pressed moves the selection cursor over the grid of lines. Pressing the FIRE button, and leaning on the stick, allows you to alter the velocity of the currently-selected bit. All bits of the selected design have their velocities adjusted accordingly.

Scoring occurs when all the spheres have been rendered static. You receive bonus points depending on how much time remains, and the game proceeds to the next round-level. (There are five rounds per level and four levels in all.)

The timer is situated at the left of the screen. You should complete the score before the timer runs out.

Editing. A sphere, once static, will only see that way for a limited period of time, after which it will drift off. Hurry to complete the wave before options you captured earlier drift away.

Notes The first time you try it you won't know what the left's going on. Use only a single sphere at first. Once you realize what you're trying to do, try with four or five. Or else, just forget the game and play along with the rather unusual sound track.

Practice you can practice during game-over stages, but no points are attributed to your score and no progress is made through the levels.

This game, in a slightly enhanced version, will appear as subgame 5 in my forthcoming game *REALITY*.

```

10 REM***** SYNCHRO II *****
20 REM** A JEFF HINTER PRODUCTION **
30 REM** BASIC LOADER PRODUCED FOR **
40 REM** COMMODORE HORIZONS BY **
50 REM** JOHN COCHRANE **
60 REM**-----**
70 REMTHIS LOADER AUTO-SAVES CODE TO *
80 REMTYPE OR DISC WHEN NO ERRORS. *
90 RELOAD AND RUN AS A NORMAL PROG. *
100 REM*****
110 GOTO
120 FOR A=49152 TO 52749
130 WORD B:POKE A,B:C=CX+4
140 NEXT
150 IF CXX=346622 THEN PRINT
    *CHECKSUM ERROR...*-STOP
160 POKE 49152,0:POKE 44,192:
    POKE 45,14:POKE 46,209
170 SAVE "SYNCHRO II".REM :B FOR DISC
180 POKE 46,0:CLR-STOP
190 DATA 5,8,207,7,250,50
200 DATA 48,94,53,32,69,45,75,0
210 DATA 8,234,234,234,234,234,165
220 DATA 4,133,1,76,114,21,37,37
230 DATA 27,49,189,36,22,157,0,50
240 DATA 202,209,209,109,0,141,4,212
250 DATA 41,11,212,141,18,212,141,5
260 DATA 212,141,12,212,141,19,212,169
270 DATA 141,249,16,141,247,56,141
280 DATA 47,16,169,3,141,246,16,169
290 DATA 15,141,24,212,169,33,141,4
300 DATA 12,141,11,212,141,19,212,169
310 DATA 49,141,20,212,141,13,212,141
320 DATA 212,76,89,9,8,4,27
330 DATA 63,4,133,3,169,0,133,2

```

```

340 DATA 62,24,169,0,165,2,153,64
350 DATA 3,165,3,153,96,3,165,2
360 DATA 24,169,48,133,2,165,3,105
370 DATA 133,3,209,202,209,229,56
380 DATA 172,169,8,174,169,6,169,64
390 DATA 133,2,189,96,3,133,3
400 DATA 172,111,0,145,2,165,3,24
410 DATA 195,212,133,3,173,119,0,145
420 DATA 26,0,0,165,3,141,106
430 DATA 169,3,141,187,9,32,152
440 DATA 238,189,8,206,197,9,209
450 DATA 245,206,189,0,206,109,0,206
460 DATA 199,0,239,109,0,206,106,0
470 DATA 206,229,95,2,8,7,5,14
480 DATA 6,0,169,0,177,4,24
490 DATA 195,64,141,111,0,177,4,170
500 DATA 185,227,8,141,110,8,152,41
510 DATA 7,10,10,24,105,4,141,109
520 DATA 172,195,41,60,141,109,0
530 DATA 152,72,32,189,0,104,169,209
540 DATA 199,40,209,209,96,162,0,162
550 DATA 32,157,0,4,157,0,5,157
560 DATA 6,157,0,7,169,1,157
570 DATA 216,157,0,217,157,0,216
580 DATA 157,0,219,209,209,229,169,209
590 DATA 141,20,209,169,0,141,20,209
600 DATA 41,23,209,141,149,16,169,6
610 DATA 141,37,209,169,14,141,36,209
620 DATA 106,128,32,29,3,32,113,15
630 DATA 32,6,19,32,112,0,32,33
640 DATA 10,32,25,15,32,198,18,32
650 DATA 127,17,32,249,16,32,235,0
660 DATA 32,158,16,76,121,9,0
670 DATA 27,3,1,3,2,3,2
680 DATA 3,27,4,8,27,8,3

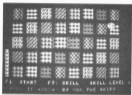
```


RO 2 by JEFF MINTER

ENTERING the listing is quite straightforward. Type the whole program into your M, remembering to add S after the program name in line 170 if you want to save to disk.

Now RUN the program. Have a blank disk or tape ready, as John Cochrane's AUTOSAVE program will then save Synthes II for you. If you have made an error typing the listing in, the checkcode routine will prevent it from saving.

When the program has saved, switch your machine off and on, then load Synthes II from tape or disk as normal. The game will save you.



670	DATR5.6.6.6.6.5.27.1
700	DATR5.27.2.2.2.8.1.2
710	DATR3.4.3.6.8.1.2.3
720	DATR4.2.6.8.1.2.2.4
730	DATR5.6.8.1.2.3.4.5
740	DATR6.8.1.2.3.4.5.6
750	DATR8.1.2.3.4.8.9.27
760	DATR1.2.1.2.2.2.8.8
770	DATR3.4.3.4.3.4.8.8
780	DATR6.6.5.6.5.6.8.12
790	DATR27.1.1.8.8.8.8.2.2
800	DATR3.4.4.3.2.2.5.6
810	DATR7.4.27.6.5.2.2.3
820	DATR4.4.3.2.2.6.8.8
830	DATR1.1.8.8.8.168.8.141
840	DATR22.288.141.33.288.168.24.141
850	DATR24.288.36.138.72.188.25.11
860	DATR48.26.178.168.8.177.6.72
870	DATR98.177.6.138.145.6.288.132
880	DATR7.288.245.104.145.6.288.288
890	DATR234.184.178.72.188.33.11.248
900	DATR24.178.168.7.177.6.72.136
910	DATR177.6.288.145.6.138.288.247
920	DATR184.145.6.288.288.238.104.178
930	DATR72.188.175.11.248.21.178.168
940	DATR8.177.6.18.188.8.145.6
950	DATR288.192.8.288.244.282.288.238
960	DATR184.178.72.188.9.11.248.21
970	DATR178.168.8.177.6.288.184.144
980	DATR2.9.128.145.6.288.192.8
990	DATR288.241.288.288.238.184.178.96
1000	DATR162.8.188.34.133.7.188.182
1010	DATR18.138.8.32.48.188.238.224
1020	DATR8.288.238.96.8.18.124
1030	DATR32.48.48.96.138.177.17.288
1040	DATR1.127.141.17.288.168.192.141

1050	DATR18.288.168.1.141.25.288.141
1060	DATR28.288.168.238.141.28.8.168
1070	DATR18.141.21.2.168.127.141.13
1080	DATR28.96.32.58.15.32.288.17
1090	DATR32.182.11.32.88.13.32.133
1100	DATR18.32.162.18.32.68.19.168
1110	DATR255.141.18.288.168.1.141.25
1120	DATR288.141.26.288.76.48.288.8
1130	DATR32.27.173.198.13.18.18.24
1140	DATR65.3.141.188.8.173.193.11
1150	DATR8.18.141.188.8.168.62.141
1160	DATR11.8.174.192.13.188.56.12
1170	DATR141.118.8.32.152.8.238.188
1180	DATR8.32.152.8.238.188.8.32
1190	DATR152.8.173.188.8.24.188.4
1200	DATR141.188.8.188.68.141.111.8
1210	DATR32.182.8.288.188.8.32.182
1220	DATR8.288.188.8.32.152.8.96
1230	DATR173.198.11.18.18.24.188.3
1240	DATR41.188.8.173.191.11.18.18
1250	DATR41.188.8.188.32.141.181.8
1260	DATR32.182.8.238.188.8.32.182
1270	DATR8.238.188.8.32.152.8.173
1280	DATR98.8.24.188.4.141.188.8
1290	DATR32.182.8.288.188.8.32.182
1300	DATR8.288.188.8.76.152.8.288
1310	DATR188.13.248.7.36.3.238.8
1320	DATR8.8.4.168.3.141.188.11
1330	DATR32.118.11.173.8.238.141.188
1340	DATR13.238.182.11.173.182.11.41
1350	DATR7.141.182.11.173.188.11.41
1360	DATR16.248.98.173.188.11.41.1
1370	DATR88.173.288.191.11.173.191.11
1380	DATR28.288.288.5.168.4.141.191
1390	DATR11.173.188.11.41.2.288.18
1400	DATR288.191.11.173.191.11.288.5
1410	DATR288.5.168.9.141.191.11.173
1420	DATR188.11.41.4.288.11.288.188
1430	DATR11.173.188.11.48.7.141.188
1440	DATR11.173.188.11.48.8.288.11
1450	DATR288.198.11.173.188.11.41.7
1460	DATR41.188.11.32.64.12.76.41
1470	DATR41.8.11.12.15.1.15.12
1480	DATR1.288.78.12.248.2.96.3
1490	DATR168.3.141.78.12.173.188.11
1500	DATR44.16.248.1.76.173.191.11
1510	DATR18.18.18.13.188.11.168.177
1520	DATR4.178.173.188.11.41.1.288
1530	DATR28.32.217.18.188.33.11.248
1540	DATR8.222.33.11.76.132.125.284
1550	DATR25.11.188.25.11.188.188.191
1560	DATR88.8.222.25.11.173.188.191
1570	DTR41.2.288.28.32.234.18.188
1580	DTR123.11.248.6.222.25.11.76
1590	DTR167.12.234.33.11.188.33.11
1600	DTR128.191.11.288.3.222.33.11
1610	DTR173.188.11.41.4.288.25.188
1620	DTR9.11.248.8.222.9.11.76
1630	DTR199.12.254.17.11.188.17.11
1640	DTR288.193.11.288.8.222.17.11
1650	DTR173.188.11.41.8.288.23.188
1660	DTR17.11.248.4.222.17.11.96
1670	DTR254.9.11.188.9.11.288.193
1680	DTR11.288.3.222.9.11.96.11
1690	DTR2.4.8.16.32.64.128.188
1700	DTR128.12.73.288.48.21.288.141
1710	DTR21.288.36.138.18.168.188.62
1720	DTR13.248.238.18.188.8.288.141
1730	DTR12.188.288.18.13.16.288.141
1740	DTR16.288.76.21.13.188.238.12

1750	DNR170	235-45	16-200	144	16	200
1760	DNR180	70-13	153-1	200	100	70
1770	DNR12	157-240	7-172	192	11	100
1780	DNR40	12-157	39-200	100	200	12
1790	DNR13	21-200	143-21	200	96-0	
1800	DNR40	0-90	4-27	32	40	
1810	DNR64	80-96	112	120	144	192
1820	DNR124	195-196	197-198	199	200	0
1830	DNR160	0-12	140-14	141	140	0
1840	DNR20	290-12	100-60	10-200	0	
1850	DNR20	190-10	32	140	14	32-20
1860	DNR14	212-224	8-200	204-173	140	
1870	DNR16	200-10	173-137	16	200	5
1880	DNR10	1-141	140-16	96-0	0	
1890	DNR0	1-0-5	37	200	0-1	
1900	DNR0	4-27	222	255	10	200
1910	DNR100	2-157	250-13	32-7	14	
1920	DNR100	62-13	24-120	134-13	157	
1930	DNR62	10-41	240-201	8-240	4	
1940	DNR201	152-200	25-100	134-13	70	
1950	DNR220	24-105	3-157	184-13	160	
1960	DNR130	14-70	255-24	105-1	157	
1970	DNR130	14-76	143-13	100-70	10	
1980	DNR24	120-142	13-137	70-13	40	
1990	DNR40	201-16	240-0	201	200	240
2000	DNR1	96-100	142-13	70	200	24
2010	DNR100	1-157	142-13	100-141	14	
2020	DNR73	255-24	105-1	157-141	14	
2030	DNR0	200-13	96-1-0	27-204		
2040	DNR70	10-100	70-10	201	200	240
2050	DNR1	96-100	132-107	70-10	20	
2060	DNR0	0-130	72-100	62-13-200		
2070	DNR0	104-170	90-50	203-0	100	
2080	DNR100	41-63	141-24	14-100	70	
2090	DNR13	96-203	44-100	100-100-44		
2100	DNR21	24-105	0-44	25-14-172		
2110	DNR24	14-174	20-14	100-64	0	
2120	DNR130	2-100	96-3-131-3-177			
2130	DNR2	201-32	240-45	96-203-64		
2140	DNR14	24-14	41-240	200-35	172	
2150	DNR24	14-160	104-70	12-100-9		
2160	DNR11	24-125	132-14	96-240-17		
2170	DNR11	157-104	13-100	30-11-24		
2180	DNR100	144-14-90	200-20	11-157		
2190	DNR142	13-104	170-96	0-3-0		
2200	DNR1	0-9-27	200-0-1-0			
2210	DNR4-27	100-134	13-240	6-160		
2220	DNR1	141-140	16-96	107-142	10	
2230	DNR200	245-100	212-14	200-0-32		
2240	DNR24	14-160	200-137	212-14-30		
2250	DNR201	290-200	15-173	220-14-157		
2260	DNR12	14-100	0-357	220-14-32		
2270	DNR203	17-96	204-220	14-200-3		
2280	DNR222	212-14	100-11	157-30	200	
2290	DNR40	220-0-27	105-13	32-245		
2300	DNR4	41-7	56-7	32-10-15		
2310	DNR44	7-56	200-3	201-4-200		
2320	DNR2	41-3-0-1	137-133	14		
2330	DNR57	134-13-32	10-15	41-7		
2340	DNR60	233-3	201-4	200-2-41		
2350	DNR3-9	1-157	141-14	157-145		
2360	DNR3	96-173	0-200	200-100	16	
2370	DNR25	100-6-133	9-100	200-100		
2380	DNR0	100-0-100	19-145	3-96		
2390	DNR200	90-133	0-100	3-233-0		
2400	DNR30	9-100	72-145	0-200	200	
2410	DNR20	141-61	13-96	0-120-105		
2420	DNR4	41-251	130-1-60	0-90		
2430	DNR0	100-0-200	192-0	200-2		
2440	DNR44	15-157	0-32	100-0-200		
2450	DNR100	2-200	2-0-15	157-0		
2460	DNR35	200-150	41-7	100-200-200		
2470	DNR224	100-1-9-4	100-1-100			
2480	DNR20	20-65-15	100-40	100-150		
2490	DNR10	41-63	107-111	7-100-100		
2500	DNR10	41-10-107-111	7-100-100			
2510	DNR10	41-63	107-107-107-100-100			
2520	DNR10	41-10	107-107-107-100-100			
2530	DNR231	96-32	00-00-70-07	02		
2540	DNR70	32-90	21-32	42-30-60		
2550	DNR70	42-32	32-60	60-90-30-60		
2560	DNR70	70-32	94-70-60	32-70		
2570	DNR0	70-82	80-40	5-27	32	
2580	DNR32	60-0-27	32-71	71-32		
2590	DNR67	0-27	32-32	65-65-32		
2600	DNR60	60-60	32-65	65-65-32		
2610	DNR0	100-27	32-32	32-60-70		
2620	DNR65	70-60	96-32	40-32-32		
2630	DNR70	67-60	67-75	60-32-40		
2640	DNR0	32-32	00-07	70-60-60		
2650	DNR0	32-32	0-27	32-4-27		
2660	DNR67	0-27	32-71	32-32-67		
2670	DNR0	27	32-71	32-32-32-60		
2680	DNR0	27	32-71	8-27	32-32	
2690	DNR173	147-100	200-10	173-147-10		
2700	DNR200	3-200	74-16	240-2-96		
2710	DNR16	100-64	140-74	16-200-60		
2720	DNR15	173-61	15-100	0-145-0		
2730	DNR201	74-240	0-96	100-30-140		
2740	DNR0	100-70	140-61	15-96	0	
2750	DNR04	100-40	132-0	100-9-100		
2760	DNR0	130-9-100	0-201	250-200		
2770	DNR227	100-1-140	147	16-103-32		
2780	DNR141	240-17	100-2-141	250-17		
2790	DNR141	250-17	100-1-141	250-17		
2800	DNR00	0-0-0	173-140	10-200		
2810	DNR0	96-100	0-56	207-240-12		
2820	DNR41	120-17-173	247	16-24-107		
2830	DNR40	16-10-4-27	13-100-17			
2840	DNR41	120-17	32-94-17	32-70		
2850	DNR16	32-100	17-173	147-16	240	
2860	DNR242	120-100	0-141	147-16-32		
2870	DNR25	15-100	0-141	44-16-200		
2880	DNR47	16-173	247	16-200-3-200		
2890	DNR1	100-1-141	247	16-200-240		
2900	DNR6	172-240	16-100	100-41-3		
2910	DNR141	240-16	200-240	16-100-100		
2920	DNR70	111-9-3-1-1	100-0			
2930	DNR30	107-0-11	107-17	11-157		
2940	DNR25	11-107	30-15-200	200-9		
2950	DNR200	200-170	247	16-24-100	40	
2960	DNR41	120-17	173-240	16-24-107		
2970	DNR40	141-231	7-173	240-16-24		
2980	DNR60	40-141	70-7-172	247-16		
2990	DNR60	101-17	141-220	14-100-127		
3000	DNR0	30-4	100-9	130-5-172-240		
3010	DNR60	130-150	41-3-100	240-16		
3020	DNR65	4-24	100-40	131-4-105		
3030	DNR0	100-0-100	5-100	200-240		
3040	DNR6	173-120	17-41	15-170-170		
3050	DNR100	17-100	6-27	41-15-100		
3060	DNR100	70-204	221-7-100	221-7		
3070	DNR201	50-200	0-100-40	157-201		
3080	DNR7	200-200	200-140	170-150-200		
3090	DNR231	96-9	100-0	100-0-157		
3100	DNR42	13-107	1-40	13-107-133-14		
3110	DNR100	200-100	107-212	24-202-200-0		
3120	DNR200	200-100	0-32	30-15-41		
3130	DNR1	100-40	157-62	33-32-10		
3140	DNR15	41-60	60-64	157-70-10		
3150	DNR32	200-14	200-200	200-60-200		
3160	DNR227	96-7-5-4-3	130-70			
3170	DNR100	72-100	15-100	60-130-270		
3180	DNR203	102-200	240-104-100	104-170		
3190	DNR0	173-247	17-200	9-100-0		
3200	DNR141	32-200	141-33	200-96-170		
3210	DNR201	107-200	19-173	250-17-141		
3220	DNR251	173-173	252-17	141-32-200		

3230 DATA41.33.208.206.249.17.26.206
 3240 DATA251.17.76.219.37.6.4.37
 3250 DATA32.19.15.41.15.208.2.9
 3260 DATA4.141.252.17.32.18.17.41
 3270 DATA31.105.6.141.249.17.32.10
 3280 DATA15.41.7.24.103.2.141.250
 3290 DATA17.141.233.17.26.4.4.37
 3300 DATA5.5.5.6.6.7.7.7
 3310 DATA6.6.6.9.9.10.11.11.12
 3320 DATA13.14.14.15.14.17.18.19
 3330 DATA21.22.23.25.26.28.29.31
 3340 DATA33.35.37.39.42.44.47.50
 3350 DATA53.56.58.63.68.112.160.251
 3360 DATA71.152.237.71.147.45.119.233
 3370 DATA97.225.194.247.143.48.219.143
 3380 DATA79.24.239.219.193.199.203.231
 3390 DATA21.94.141.94.156.49.223.165
 3400 DATA125.134.161.223.62.193.107.60
 3410 DATA97.99.199.79.8.6.174
 3420 DATA36.19.100.34.19.141.1.212
 3430 DATA89.82.16.141.6.212.179.190
 3440 DATA31.41.7.160.185.250.18.24
 3450 DATA89.139.19.179.189.82.18.141
 3460 DATA7.212.189.34.18.141.8.212
 3470 DATA79.190.11.201.5.209.9.169
 3480 DATA99.18.24.185.3.141.7.212
 3490 DATA173.121.11.41.3.160.185.2
 3500 DATA19.24.103.130.18.179.189.82
 3510 DATA10.141.14.212.189.34.18.141
 3520 DATA13.212.94.209.139.18.173.139
 3530 DATA19.291.24.249.1.96.163.6
 3540 DATA41.1.39.18.36.204.139.18.173
 3550 DATA139.19.201.255.209.233.169.23
 3560 DATA41.1.336.18.36.3.4.15.14
 3570 DATA24.9.3.4.7.6.9.19.26
 3580 DATA162.48.169.24.19.41.43.157
 3590 DATA31.7.149.1.157.31.219.262
 3600 DATA209.249.94.32.32.79.49.32
 3610 DATA32.33.34.35.36.37.38.39
 3620 DATA32.79.58.59.32.33.79.73
 3630 DATA76.76.32.32.33.33.79.73
 3640 DATA76.76.32.76.69.69.69.76
 3650 DATA32.49.32.173.147.16.266.1
 3660 DATA56.143.197.201.4.209.40.162
 3670 DATA48.169.1.157.31.219.262.269
 3680 DATA259.163.6.141.147.16.141.149
 3690 DATA15.169.1.141.147.16.141.249
 3700 DATA16.162.6.169.49.157.225.7
 3710 DATA262.269.256.32.26.15.96.201
 3720 DATA2.269.29.179.179.19.209.246
 3730 DATA269.246.16.173.246.16.141.173
 3740 DATA19.291.3.209.6.163.1.141
 3750 DATA246.16.32.249.16.76.127.57
 3760 DATA221.64.246.1.96.169.6.141
 3770 DATA179.19.172.892.11.165.96.12
 3780 DATA162.49.157.31.213.262.209.250
 3790 DATA94.9.155.69.27.249.4.37
 3800 DATA15.4.27.239.231.195.6.6
 3810 DATA195.131.239.191.53.177.177.193
 3820 DATA237.237.231.231.207.159.62.124
 3830 DATA249.243.231.255.231.231.191.195
 3840 DATA129.255.24.69.134.269.269
 3850 DATA26.69.24.255.255.199.4.27
 3860 DATA255.4.27.3.3.243.243.91
 3870 DATA1.279.219.183.129.119.195.233
 3880 DATA255.6.6.255.219.160.129.219
 3890 DATA195.6.4.27.255.219.169.129
 3900 DATA6.4.27.255.219.6.112.6
 3910 DATA19.179.6.42.179.129.49.179
 3920 DATA19.162.179.169.195.179.169.166
 3930 DATA179.169.196.179.169.179.169
 3940 DATA179.179.169.42.179.129.42.179
 3950 DATA129.16.179.6.6.169.6.22

3960 DATA27.129.6.169.6.18.193.6
 3970 DATA49.179.129.49.179.129.162.179
 3980 DATA69.99.179.169.219.179.169.219
 3990 DATA179.169.26.179.169.179.179.169
 4000 DATA42.179.129.42.179.129.16.179
 4010 DATA96.6.169.6.22.27.139.6
 4020 DATA169.6.19.179.6.42.179.129
 4030 DATA99.147.192.162.179.169.169.179
 4040 DATA169.119.179.169.119.179.169.169
 4050 DATA179.169.179.169.42.179.129
 4060 DATA42.179.129.42.179.129.6.6.169
 4070 DATA96.22.27.139.6.169.6.169
 4080 DATA179.6.42.179.129.49.179.129
 4090 DATA162.159.209.95.196.169.125.194
 4100 DATA169.125.196.169.95.196.169.179
 4110 DATA179.169.42.179.129.42.179.129
 4120 DATA99.179.6.6.169.6.22.27
 4130 DATA36.6.169.6.19.179.6.42
 4140 DATA179.129.49.179.129.162.127.249
 4150 DATA149.96.169.131.214.169.151.214
 4160 DATA169.149.96.169.179.179.169.42
 4170 DATA179.129.42.179.129.16.179.6
 4180 DATA99.169.6.22.27.139.6.169
 4190 DATA99.16.179.6.42.179.129.49
 4200 DATA179.129.162.179.169.169.25.26
 4210 DATA169.125.96.165.169.169.169.169
 4220 DATA95.225.219.169.42.179.129.42
 4230 DATA179.129.19.179.6.6.169.6
 4240 DATA22.27.139.6.169.6.169.179
 4250 DATA96.42.179.129.49.179.129.162
 4260 DATA179.199.179.149.169.179.151.209
 4270 DATA79.151.209.179.149.99.209.169
 4280 DATA96.42.179.129.42.179.129.16
 4290 DATA179.6.6.169.6.22.27.139
 4300 DATA169.6.6.169.179.6.42.179
 4310 DATA129.49.179.129.162.179.169.179
 4320 DATA165.69.179.165.209.179.165.209
 4330 DATA179.165.99.179.179.169.61.179
 4340 DATA129.42.179.129.16.179.6.6
 4350 DATA169.6.22.27.139.6.169.6
 4360 DATA19.179.6.42.179.129.49.179
 4370 DATA129.162.179.169.179.179.169.179
 4380 DATA179.112.179.179.112.179.179.169
 4390 DATA179.169.42.179.129.42.179
 4400 DATA129.15.169.6.6.169.6.22
 4410 DATA27.129.6.169.6.19.179.6
 4420 DATA2.179.129.49.179.129.162.179
 4430 DATA169.179.179.144.179.179.144.179
 4440 DATA179.144.179.179.144.179.179.169
 4450 DATA42.179.129.42.179.129.16.179
 4460 DATA96.6.209.6.22.27.139.6
 4470 DATA76.72.76.4.229.234.239.6
 4480 DATA255.6.255.44.255.6.223.6
 4490 DATA6.27.1.129.162.16.169.6
 4500 DATA34.29.132.21.162.113.169.21
 4510 DATA34.252.132.253.169.6.162.129
 4520 DATA169.146.21.157.31.5.262.269
 4530 DATA247.76.132.3.11.8.16.6
 4540 DATA39.39.49.39.39.45.6.6.6
 4550 DATA62.6.169.6.20.167.6.34
 4560 DATA169.96.20.157.6.49.169.34
 4570 DATA1.157.6.136.192.255.269.3
 4580 DATA199.253.177.252.133.255.136.192
 4590 DATA255.269.2.199.253.177.252.269
 4600 DATA27.249.47.157.6.23.262.224
 4610 DATA255.269.6.269.199.3.286.149
 4620 DATA3.199.255.209.139.169.209.255
 4630 DATA269.2.179.253.177.253.201.27
 4640 DATA49.291.157.6.23.224.224.255
 4650 DATA269.273.262.163.3.206.149.3
 4660 DATA269.257.162.31.169.51.3.157
 4670 DATA96.6.269.269.247.169.27.169
 4680 DATA55.1.33.1.33.76.188.169

Plus/4 adding up?

Although one major selling-point of the Plus/4 is its WDM software, most owners want to supplement the 3+1 suite with programs on disk or tape. John Cochrane looks at some of the few products available

SOFTWARE of any sort for the Commodore C16 and Plus/4 machines is thin on the ground. Utility software is almost non-existent, which makes the recent crop of programs for these machines particularly pleasing. The value for money offered by the C16, and even more so by the Plus/4 if you are prepared to shop around a little, is badly let down by a lack of commercial software, so any new software is very welcome.

Accounts

Company Pac 1.2.1 by Impex Software is for the Plus/4 only, and a disk drive and printer are also required. The package is intended for keeping accounts, stock control, and the printing of invoices and credit notes. Commodore think highly enough of Company Pac 1.2.1 to set up a special alternative deal around it consisting of a Plus/4, a 1041 disc drive, an MPS-801 printer, and the Company Pac 1.2.1 software for £495. Alternatively Company Pac 1.2.1 is available by itself for £89.95. The printer is a very important part of the system as all reports are sent to it while using the program.

The program is intended primarily for a small trading business, one which buys and sells manufactured goods rather than a manufacturer or a supplier of services. Thus shopkeepers, for example, are more likely to be able to make good use of the package than say estate agents. The main record keeping system is designed around the buying and selling of goods.

Company Pac 1.2.1 records the purchases and sales made by a company in the form of a sales ledger, a purchase ledger, and a nominal ledger. All of these requires data in the style of an invoice, although a real invoice need not necessarily exist. The sales ledger records data concerning stock which has been sold, the purchase ledger records data about stock which has been bought. The nominal ledger combines data from the other two, along with business expenses other than stock purchase, and uses this data to calculate profits and loss sums and to set up a series of company accounts. A separate disc is required for each of these ledgers, the program reminds you which disc to use when.

Stock control, or more correctly stock recording, uses a standard form of record lists of stock which covers not only the current stock level but also details of the normal

supply, cost price, selling price, and the current location of the stock. When items are bought or sold these forms are updated to keep a track of current stock levels.

Impex has done a very good job of producing a package which works within the limitations of the computer hardware yet which remains effective and simple to use. The documentation is organised as a tutorial, guiding the user through the program step by step giving tips for getting the best out of each of the facilities in turn. Full-blown accounting and stock control programs developed to run on the more expensive business micros often try to be all things to all men, they end up being powerful but rather cumbersome to use. Company Pac 1.2.1 has necessary restrictions on aspects such as the numbers which can be used for invoices and the way in which data must be presented to the system, but these restrictions are refreshingly explained in full rather than hidden in the usual morass of cross-ref.

Wordprocessing

The software is well thought out and well written. Screen displays are clear and uncluttered. It does not take long before you are using the package confidently and without needing to keep the manual by your side.

Word Perfect is a word processor produced for both the C16 and the Plus/4 by Softdesk. In truth Word Perfect has been developed primarily for the C16 but Softdesk have obviously decided that the program is tall's plenty good to rival the built-in Plus/4



word processor.

There are two major problems to be dealt with when writing a word processor for a home computer. Firstly the screen display is normally limited to no more than 80 characters wide, whereas a typical typewritten page

will be 60 to 70 characters wide. This makes it very difficult to show the document which is being processed in a meaningful way. The second problem is the lack of available memory. First class memory is an alarming size and this means that the program itself must be kept as small as possible. You either end up with a word processor which is almost useless because it is too simple, or one which is almost useless because it will only process a very small document. There are of course exceptions to this trend, in the form of well thought out and useful processors, but these tend to be rare birds.

Document

To be honest I must say that I am no more than lukewarm about Word Perfect (but as I am best informed about the 3-plus-1 word processor of the Plus/4). The program has some limitations which I was disappointed to find in a "modern" word processor. Text seems to be held as single lines of characters (such as is done in 3-plus-1). Although some clever programming allows you to ignore this for most of the time, some of the text-wrapping functions work in rather strange ways. The maximum number of lines available is 256, so Plus/4 owners or C16 users with expanded memories will not be able to use the full capacity of their machines.

Word Perfect saves well in two areas: it is available now and it is, though simple, quite well thought out. Softdesk managed to keep the program size down (and hence the space available on a standard C16 for the document

up by making the program "dumb". Thus, for example, if you insert text into the middle of an existing document you will normally have to create blank lines for the new text, enter the text, and then reformat the paragraph concerned to get rid of unwanted spaces. On a more intelligent word processor most of this would be done automatically. Although word-wrap is included, the text cannot be justified to the right to keep it tidy.

Filing

When it comes to actually using Word Perfect you can define the width of the printed document up to 80 characters and the page length as required. You can set tabs, move either margin, center text, and change the colors used on screen. Blocks of text can be moved, moved, or copied although the blocks must be complete lines of text and some of the processor require rather a lot of key-punching. There is even a simple search command to help you locate a particular piece of text and some vertical-scroll functions which can be used for moving columns of text. When the document has been typed in and set up in the desired format it can be saved to tape or disc, verified, and printed out. The print functions allow for non-Commodore printers and some attempts is made to give features such as text underlining and alternative typefaces, but this is only suitable for some printers.

Overall I found Word Perfect quite straightforward to use and fully capable of producing most simple documents. On the C18 you will be limited to around 2.5 printed pages of A4 text. On the Plus/4 the available document space increases to around 9 pages of A4 text which is 2.5 times the space provided by the built-in 8-page word processor can give.

Superfile 16 from Terefoot is aimed squarely at the C18 using the tape recorder. The program is a simple filing system for keeping records such as names and addresses or details about collections of objects. You can only have one file in memory at a time, and hence you will not be able to cross-reference information between files. What you can do is set up a file which you can sort into ascending order or which you can search for some particular feature.

Memo-driven

Somewhat surprisingly these days the program has been written in Basic, so there is the possibility of modifying the thing to use disc. Also rather surprising is a limit of 80 on the number of records which can be held in memory, memory extensions are no good to you here! Despite the Basic the program is quite simple to use and reasonably fast.

Superfile 16 is memo-driven, that is you have to select options from a series of memos. This makes the program very easy to use. Unfortunately the program, like many others, is let down by its documentation. What there is of the documentation is good, it's clear and to the point. The problem is that the manual is simply incomplete. Nowhere is the use of a printer mentioned, or the setting of screen colours, or the maximum number of records which can be set up. Trial and error indicates that although you can print recorded data but you have to print the list, and a Commodore



printer is assumed.

Music Master affords a little light relief after the rigors of accounts and word processing. The C18 and Plus/4 were criticised at first for having limited sound capabilities when compared with the C64. Much of this criticism was, in my opinion, misguided as the programs and lower programmers use the C64 sound capabilities to the full because of the difficulty of programming the thing. The two voices provided on the C18 and Plus/4 are good enough for most requirements yet simple to use.

Superfile takes things somewhat further than most with Music Master, and stores very effectively what can be done. With the software loaded from tape or disc you can use the keyboard as a simple piano, making music to your heart's content, or you can use the memory to record and edit your tunes for replaying at a later date. Either of the voices can be used when playing from the keyboard, or both together to produce a richer sound. Superfile can additionally be used to provide a background or rhythm while you play on voice 1. The built-in systems are provided or you can write your own.

The length of time which can be held in memory is limited to 420 notes per voice. I have not yet found a way of increasing this for use on the Plus/4. How long each a tune will last depends on the tempo selected. Tunes, or changing patterns of notes depending on your skill, can be saved to tape or disc. You can also, with the aid of some program listings printed in the manual, transfer tunes developed using Music Master to programs of your own.

I am so anxious so I am not able to comment seriously on the technical capabilities of Music Master, other than to say that you need to have a pretty good imagination to make the thing sound like anything but a cheap electric organ. What I can say is that I found the program easy to use and fun to play. The manual is well written and complete with plenty of helpful comments on making practical use of the program. ■

SOFTWARE: Company Pac 3.2.3
SUPPLIER: Impact Software Ltd, Merrifield House, Second Way, Middlesex HA8 0TY, Tel: 01-880 0099.
PRICE: £88.00.

SOFTWARE: Word Perfect
SUPPLIER: Supersoft, Winchester House, Canning Road, Wokingham, Hants, Middlesex, HA3 7SU, Tel: 01-944 1466.
PRICE: £149.50 (Disk), £129.50 (Tape).

SOFTWARE: Music Master
SUPPLIER: Supersoft, Winchester House, Canning Road, Wokingham, Hants, Middlesex, HA3 7SU, Tel: 01-944 1466.
PRICE: £149.50, £129.50 (Tape).

SOFTWARE: Superfile 16
SUPPLIER: Wincsoft, Addison Industrial Estate, Burydon, Tyn & Wain, NE21 4ZE.
PRICE: £3.95 (Tape).



Once in a Red Moon

Intrepid adventurer Ken Matthews tries out Level 9's latest epic and solves a few of the toughest puzzles around . . .

THE DELAYED arrival of many promised titles over the last few months has produced a shortage of adventure software this summer. The agonized wait is now over — **Red Moon** is with us!

Level 9's first game from their new line in Western Super-Mare is also their first "magical" adventure where the hero(s) has 80% points if they fail to save you and which can rapidly be lost if you choose to fight your way through the game rather than think.

As before a magical quest, you also have the opportunity to use twelve spells, although you need the correct item with you to "channel" the supernatural forces and cast the spell successfully.

Long ago the Moon was red and magic ruled the world, but, at each eclipse, the moon was left more battered and pale from its battle with the sun. Even magic, magic failed in the daytime and time as we know it began.

In the kingdom of Baskalos though, the wizards and warlocks joined their powers to form the Red Moon-Crystal which was mounted in a huge tower to spread its light and preserve the last magical scales on Earth.

Despite the red glow, things were not altogether rosy in Baskalos — one day the Crystal was stolen — **Red Moon** tells the story of how a lone magician struggled to recover it and save the country . . .

The game is in many ways typical of the "new style" Level 9 with better location descriptions than their earlier games but with a graphic for each location and a new idea of telling you where each exit leads to, if there isn't a door in the way, which you should find very useful.

The commands are the simple two word type which are more than adequate and the "quips" contained in particularly useful in combat. The graphics are rapidly drawn and can be turned off if you desire to move around more quickly.

In most games you find yourself unable to visit more than a few locations without needing to solve a problem but **Red Moon** allows you to visit almost every location with a mini-

map of thought. Most of the rooms are empty but those that aren't are the real puzzle. You will need to thoroughly explore the huge map before things fall into place and you can gain the items you need to visit the elusive few locations where the treasure lies.

Treachery

The most original part of the game is the introduction of various characters, friendly,

avoid combat, find objects and detect treasure. The presence of item interfaces with casting spells and will cost you his points — be careful because one will reduce you to zero as spells in **Red Moon**. Restoring the Crystal to the correct place ends the game so if you are going for maximum points — don't do it.

Red Moon is excellent — the plot is original even if the idea of his points has been seen before — Level 9 is still the best in Britain.

To round off this month I've given in to pressure and decided to let you have a few hints and tips.

In **Task I**, you can recover the platinum bar by either draining the reservoir behind the dam and refilling it or by simply typing **DC10** in the room.

In **Task II**, try attacking the dragon and then moving away to get a clue to his demise.

In **Task III**, you should treat the cheap wine of fern to help you with the chess and make sure you cover your tracks through time if you want your burglary to remain undetected.

In **High-Riders Guide to the Galaxy**, you can obtain the hidden fish by putting the gears on the boat, the lever over the gate, the switch over the panel and the junk mail on the switch before pushing the button (yawn!).

In **Deadline**, try turning the radiator and shading the pad with pencil to get you a suspect for (not) a motive.

In **Knave's Tale**, you need the wrench to pass the logging machine and the lever post to move the mechanism before you can find a **LOVE** egg.

In **Murder's Quest**, you will need to map the jungle completely and see which creature your map resembles to answer Tawny's riddle.

Finally, in **The Fourth Protocol**, you will need to study the graphs to discover how the machine was murdered. Verbalize in Russian for "radio-lighter" and will help you when you reach adventurer three.

That's it for this month, see time we will be announcing the winners of the associate competition so if you will want to have a go — you'll have to hurry! ■



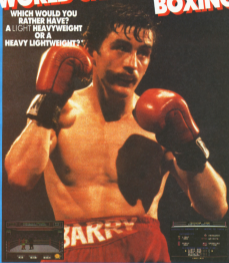
map and evil that may help or hinder your progress depending on your reaction to them.

Some of these will need to be fought, some entertained, but most of the toughest can be defeated by simple treachery or a little magic. However though, the spirits of those you kill are very restless — and more than a little proud with you.

There are also other treasures that you can obtain on your way to recovering the Crystal which will allow you to achieve the maximum score: some of them are magical and help you

BARRY McGUIGAN WORLD CHAMPIONSHIP BOXING

WHICH WOULD YOU
RATHER HAVE?
A LIGHT HEAVYWEIGHT
OR A
HEAVY LIGHTWEIGHT?*



Barry McGuigan World Championship Boxing. The first computer boxing game to give you 'real-life' action with all the style and strategy of the big fight.

Round One. You're up against 19 top boxers including, the champ himself, Barry McGuigan. You'd better box clever to beat these boys.

Round Two. You're aiming for the title. Time to create your very own boxing partner. You decide how he looks, how he fights. You put him through his paces to build up stamina and endurance.

Round Three. What a fight! What a champ! It's a knock-out!

* We know he is the best featherweight, but we thought it was a good line.

Sport

ACTIVISION
HOME COMPUTER SOFTWARE

MEGA-TRANSFER DISK £16.00

A highly collection of routines which will efficiently transfer an extremely wide range of fast loading tapes to disk. General purpose routines to transfer Megas, Wars, Bomber, Flash, Hyper, CBS loaders and others. A huge menu of individual routines for unusual loaders, including combination slow/fast loaders, the latest sports simulators and top arcade and adventure games. Special purpose routines for those difficult U.S. slow loaders which even Diskus 1 can't handle. And transfer routines for programs recorded using R.B.S., Fastback and Hypersave-64. Includes a program identifier file transfer is automatic. No user knowledge required. MEGA-TRANSFER DISK is the finest transfer utility available for fast loading programs. Don't settle for less.

MEGA-UTILITY DISK £11.00

1. **ALPHALOAD** Disk Turbo Loader. Add this small program to each of your disks and your programs will load at over FOUR times the normal rate. No menu is required and you DON'T have to load Alphaloop separately. Example: 100 blocks, normal speed 130 seconds - with ALPHALOAD just 30 seconds.
2. **FAST COPY**. A high class single drive whole disk copier. Backups a full disk in a little over three minutes. Will handle many commercial disks but not if heavily protected.
3. A multi option **FAST** disk formatter and a single file transfer routine which will handle program files of any length.
4. **DISK TO TAPE**. Transfer any single disk program to tape (not lost). No memory conflict. Will handle programs of 200 blocks and more.

All programs for the Commodore 64. Send SAE for full details or cheque/PO for fast despatch to:

DOISOFT (Dept. CH), 2 OAKMOOR AVENUE, BLACKPOOL FY2 0EE
 U.K. Postage included. Overseas add 75p. Overseas add £1.50 for airmail.

DISKUS I £11.00

The premier tape to disk transfer utility for your slow load tape collection. Multitap, Multidisk, and automatic programs are all catered for. No user knowledge required. Diskus I has provision for program types which no other utility can handle. Supplied on disk.

DISCOUNTS! Any two of MEGA-TRANSFER DISK, DISKUS I or MEGA-UTILITY DISK (single disk) £23.00. ALL THREE just £28.00. Or try our **FULL RANGE DISK** (many programs in this Ad plus our high quality Sprinter Editor, PRO-SPRINT, and tape backup/header reader at £39.00 disk only). Megasdisk owners. Send Megasdisk instruction sheet or Megasdisk for £12 credit against any offer in this Ad over £20.

|| TAPE SPECIAL ||

RAPID BACKUP SYSTEM (R.B.S.). Convert your slow loading tapes to TURBOLOAD. Multitap and autorun programs are handled with ease. No user knowledge required. R.B.S. will convert more programs than any competing utility.

HYPERSAVE 64. Retaining the flexibility which the programmer requires, Hypersave leaves less in control. Save/restore up to 48K continuous at HYPERFLOP.

SPECIAL SUMMER OFFER! BOTH PROGRAMS JUST £12.00 if you mention this Ad. (Programs available individually at £5.00 each.)

Speedipen 64 . . .

A Wordprocessor for the Commodore 64

- Easy to use, efficient, and powerful.
- High performance at low cost. All machine code. Includes everything you need to write letters etc.
- 32,000 character capacity, 250 lines of 80 columns per file.
- Blank move, delete, print and save. 'Magic ldy or' function that sorts out text that has been heavily edited.
- Word wrapping, so that words are never left broken on the right of the page. Insert a word at the head of a paragraph and the whole paragraph will be re-organised if needed.
- Print your text exactly as you typed it, or right justified. Page pause option for single sheet printing.
- Built in utilities for disk formatting, copying etc. Directory system with optional selective features.
- May be used with most IEEE-48 bit sectors.
- Supplied on disk (1541 format) and with a 30 page manual. SPEEDIPEN 64 offers more than you would expect . . .

FOR ONLY £17.50 POUNDS INCLUDING VAT AND POSTAGE

Eprom Programmer Mk 3

Now available for the CBM 64!

This will program 2516, 2716, 2532, 2732, 2594, 2794, and 27128 EPROMS. This latest software adds all the essential functions for fast and reliable EPROM programming. 14 functions including Check-Binary, Program, Verify, etc. plus JCC1 Disk, Assembler and Assembler Hex-File loading (CBM or IBM), Assembler. With built in power supply and new custom case, this is the Programmer's Commodore user at Corby! Price £289 - VAT including 2718 personality card.

HS-64 ASSEMBLER AND PROGRAM DEVELOPMENT AID

A powerful two-pass symbolic assembler combined with a number of useful programming aids. Functions include AUTO line number F&B string, CHANGE string, DCLIST line range, TYPE to screen or print a file without loading it into memory, GET source text file, PUT outputs source file to disk, SO outputs first line, REVERSE lines, JOIN program files, screen SYMBOL and address facility, CBM or ASCII code conversion, REAS read, SIZE of file and standard head address, S4TRN and CLRTRN to insert and remove lines coming from program being listed in RAM, HELDLOC and DECINLOC conversion, NEWPTRN with comprehensive facilities including screen DISPLAYASSEMBLER. Price £35.00 inc. VAT.

IEEE BUS-ADAPTOR FOR CBM 64

A superior adaptor at a reasonable price. The brand-new item allows you to use standard COMPET IEEE disk drives and printers and your CBM64. Many advanced features including:

- IEEE-6025 support
- Removable diskette support
- 200 pin edge connector for long term reliability
- Selectable default device number for hardware
- Multi-user bus sharing and simultaneous use of the serial bus

Equipped with instructions detailing these features plus many more. Price £87.95 inc. VAT.

To: **J C L SOFTWARE LTD**
 1 Sheffield Road, Southborough
 Tunbridge Wells, Kent TN11 0PD Tel: 0882 27454

Please supply:
 I enclose cheque/PO for £
 Name
 Address
 Postcode Tel. No.

POOLSWINNER

THE ULTIMATE POOLS PREDICTION PROGRAM

- **WINNER'S PREDICTIONS** - Includes a 24-page book of predictions with 1200 matches over 18 years. The book is updated continuously as results come in.
- **PREDICT** - An award-winning, low-pressure, home-use program.
- **DISCOUNTS** - Great discounts for international customers.
- **EXCELLENCE** - Awarded Best Computer Game by the Computer Game Writers Association.
- **VERSATILE** - Predictions can also be used for any large or small pool table. Includes a 12-page book with 1000 matches and our own unique method.
- **EXCELLENCE** - Awarded Best Computer Game by the Computer Game Writers Association.
- **EXCELLENCE** - Awarded Best Computer Game by the Computer Game Writers Association.
- **EXCELLENCE** - Awarded Best Computer Game by the Computer Game Writers Association.
- **EXCELLENCE** - Awarded Best Computer Game by the Computer Game Writers Association.

PRICE £11.00 (all inclusive)



FLORENCE 88/6

IF YOU're looking for a game to get the most from the computer, FLORENCE 88/6 is the answer. It's a fast, exciting, and addictive game that's perfect for the home or office.

PRICE £11.00 (all inclusive)

COURSEWINNER vs



IF YOU're looking for a game to get the most from the computer, COURSEWINNER vs is the answer. It's a fast, exciting, and addictive game that's perfect for the home or office.

PRICE £11.00 (all inclusive)

select
27 COURSCILLON LANE, CHESHAM, CHESHIRE, W 15 1 4JH 01456 7495

Sophisticated Games for The 260 CDM 64

- Hotter Games** Realistic game of tropical golf and links. Full commentary with full statistical and full major stats of cricket currently in progress. Phenomenal game features.
- Vic Cricket for Vic 260 + 189.....£9.99
 - Power 64 Cricket with extra features.....£7.99
- League Soccer** League title game for 2-26 players with automatic feature, realistic commentary, superb clock, scores, league table, cup draw etc. Unbelievable game features.
- League Soccer for Vic 260 + 189.....£9.99
 - Power 64 League Soccer with many more features still.....£7.99
- Whodunnit** 12 games have gathered for drinks at Murder House. You see of them but more than drinks on his mind. Addictive and thrilling detective game for 2 to 8 players, with genuinely different game each time.
- Whodunnit for Vic 260 + 85 or any CDM 64 game variety.....£9.99
- Top of the Pops** Easy to learn game about the music business. For up to 10 players. Includes prize game game features.
- Top of the Pops for Vic 260 + 85.....£9.99
 - Power 64 Top of the Pops - even bigger and better.....£9.99
- Reaction Race Special** Lead your own party into the next General Election. A game for 2 to 6 players.
- Reaction Race Special for Vic 260 + 85 or any CDM 64.....£9.99
- Party 6** Four games to match the program of your party: Pantomime, A Day in the Sun, Game of Strip Poker and Consequences. Fantastic fun (nothing offensive) but great fun.
- Vic Party 6 for Vic + 85 or more.....£9.99
 - 64 Party 6.....£9.99
- 80/80 Adults Only** Fun game for 2-20 brain-minded players. Lots of cunning and strategy. Also money value rewards and bonuses. You never know when you'll win or lose, or with whom! Nothing offensive, but you'll get to feel sophisticated.
- Adults Only for Vic 260 + 189 expansion.....£9.99
 - 80/80 Adults Only.....£9.99

Most versions available for all games - £9.99 extra. All prices include PDP 10.00. Games sold subject to conditions of sale which are available on request. Please write or phone for details of our full range.

Sophisticated Games "Top 100"
27 Courscillon Lane, Chesham, Bucks W15 1 4JH
Tel: 01456 7497

Evesham Micros

THE UTILITY SPECIALISTS



THE NEW GENERATION OF BACKUP METHODS HAS ARRIVED

POSTER FROM THE FUTURE is the most advanced backup method available today. It's the only backup method that can backup your entire hard disk in under 10 minutes. It's the only backup method that can backup your entire hard disk in under 10 minutes. It's the only backup method that can backup your entire hard disk in under 10 minutes.

ONLY £89.95

DISC DISECTOR V3.0

DISC DISECTOR V3.0 is the most advanced disc disector available today. It's the only disc disector that can disect your entire hard disk in under 10 minutes. It's the only disc disector that can disect your entire hard disk in under 10 minutes.

ALIGNMENT PROBLEMS?

ALIGNMENT PROBLEMS? 100% PHYSICAL EXAM. This is the only physical exam available today. It's the only physical exam that can examine your entire hard disk in under 10 minutes. It's the only physical exam that can examine your entire hard disk in under 10 minutes.



3M Floppy Disk

3M Floppy Disk is the most advanced floppy disk available today. It's the only floppy disk that can store your entire hard disk in under 10 minutes. It's the only floppy disk that can store your entire hard disk in under 10 minutes.



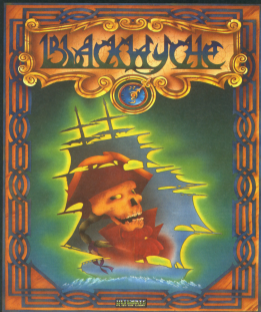
Quickdisc+

Quickdisc+ is the most advanced backup method available today. It's the only backup method that can backup your entire hard disk in under 10 minutes. It's the only backup method that can backup your entire hard disk in under 10 minutes.

EVEESHAM MICROS
27 COURSCILLON LANE, CHESHAM, CHESHIRE, W 15 1 4JH 01456 7497

MACTEC CENTRE
115A PERSEUS ROAD,
COTTINGHAM, HULLINGHAM
Tel: 047 952 5522

COMMODORE 64



"BLACKWYCHE" recommended retail price \$9.95 inc VAT.

Available from HILSMITHS, BOOTS, J. MENZIES, WOOLWORTHS

and all good software retail outlets. Also available from

ULTIMATE PLAY THE GAME, The Green, Ashby-de-la-Zouch, Leicestershire LE6 5JU

(P&P are included) Tel: 0530 411485

Calling printers

I HAVE recently written a program on my 64 which uses a printer, but I am unable to stop the program from breaking if I accidentally forget to switch the printer on and then call for a printer. This means that I lose all the data in memory. Could you suggest a Basic routine to prevent this from happening? *N. Sood*

Reply:
A STANDARD routine to control a printer is to switch on the printer in an **OPEN** or **PRINT** statement.
OPEN #4: POKE 1044: VTN 4040
OR POKE 1044: CLERE 4: V=0
OR IF SOD THEN MR BEM printer is on
OR IF S=0 THEN MR BEM this corresponds to **SPACE NOT PRESENT ERROR**
OR GOTO 10
MR BEM program continues. The program will continue in the loop in lines 10 to 20 until the printer is switched on, when S becomes 0 and execution continues in line 40.

The Vic on screen

I HAVE BEEN experimenting with the screen display of my VIC, and have found **POKE**s to change the length and width, but I can only view 24 screens and 26 from top to bottom. When I hit **RETURN** the cursor moves one space down and one back. The **POKE**s I have used are **40000** and **40017**. Also, can you tell me if there is a way to have the size of the character?
P. Phillips
Washington

You and How:
YOU ARE using the wrong registers of the Vic chip. The third and fourth locations are required **20000** and **20005**. To increase the number of columns use the following **POKE**s.
POKE 20000, PEEK(20000) + 2 (number of extra columns required)

and to increase the number of rows use
POKE 20005, PEEK(20005) + 2 (number of extra rows required).

There are programs to halve the width of the characters, using a 3 = 7 matrix, and you could use a non-defined character set to halve the height as well. The problem would be that the resulting characters might not be too legible. Try Steve West's Programming the Vic for more information.

Sprites abound

COULD YOU tell me if it is possible to create more than the standard eight sprites on the 64 using some kind of machine code subroutine? If this is possible, where would the new registers for position, collision and so on be located?
P. Blyer
Dunfermline

How Much:
IT IS possible to create more than eight sprites using interrupt techniques in a machine language program. At each interrupt, all the X and Y positions are reset so that the sprite positions are all independent. The sprite enable registers are also reset to give the extra sprites. A Basic program which creates a machine code routine to display 32 sprites can be found in Steve West's book Programming the CEM 64.

Without a trace?

I AM WRITING a TRACE program for the unexpanded Vic 20. It changes the IRQ interrupt vector to point to the TRACE routine and gets the current line number from locations 17 and 18, location 17 being the USR and 18 being the MSR. How do I display the contents of both these locations as a number between 0 and 4095?
P. Newbold
Abingdon
Essex

Use PRINT PEEK(17): a **DIS*PEEK(18)** to display the current line number which is being interrupted. Check it out by using a short test program using this routine on each line. When run, you will get a list of all the line numbers in the program. Incidentally, you cannot use it in a subroutine, because you will only get the subroutine's line numbers! The same locations apply to these readers with 64.

PRINT #4, CHR\$(15). The printer manual will give you more information about graphics mode if the device will not work in this mode, then have it serviced.

Vic 20 sprites?

AN ANSWER to a query (letter for a different machine) is a recent magazine suggested to me that "sprites" were possible on virtually any micro using interrupt routines. Can sprites be facilitated on a Vic 20?
C. Riedel
8791 42
St. Germany
Sprites are a feature of the VIC 2 chip, and would not be possible on other micros in the same way as on the 64. This is not to say that you could not develop a similar idea; interrupt routines can be used with user defined graphics to create movable object blocks which simulate "sprites". But true sprites aren't possible since the hardware isn't designed to accommodate them.



Designs on an 801

HAVING bought a copy of Activision's Designer's Pen for my 64, I wanted to print my masterpiece on my MPS-801 printer, but on following the instructions in the manual I could only get a listing for the picture, not a copy of the picture itself. Could you help me to overcome the problem?
G. Rowland
Grimsby
South Humberside

There doesn't seem to be any obvious reason why the screen dump shouldn't work. The normal series of commands for The Designer's Pen is **FILE: PROGRAM: PRINT**. Perhaps your MPS-801 cannot access graphic mode because of a fault. Try **OPEN #4: PRINT #4, CHR\$(15)**, followed by six CHR\$(15) values defining the bytes making up the columns. The first part accesses graphics mode before each string of bytes (add 10 to the value first). To return to normal text mode after dumping the screen, use

Two-tone trouble

THE SOUND on my 64 is more than a tone flat. To produce a frequency of 4000, I have to program 4714. Can it be tuned, and if so how? I'm using the Music Maker cartridge, so I can't just program 4714 every time I want a concert A.
P. Mansley
Gillingham
Essex

YOUR PROBLEM is in the software. Software designed in or for the US market will play at a lower pitch than that in the UK, and to produce a tuning standard note A (440 Hz) in the US the register value is the frequency control register is **440*16/4000 (= 1760)** and in the UK **440*17/4000 (= 1870)**, hence your problem. Swapping the 500 chip would only give you the wrong frequencies with UK produced software.



LIGHT PENS

COMMODORE 64
VIC 20/VIDEO SUPERFAMILY
SPECTRUM 48K
DRAGON 32/64
TANDY COLOUR 32K



Discover the exciting world of creating your own graphics on screen.
The Trojan Light Pen will draw boxes, circles, lines, freehand pictures, save and read pictures with full error facility.

All in Hi-Res screens in any of 4 colours for the Dragon/Tandy, 8 colours for the Spectrum and Vic 20, and 16 colours for the Commodore 64.
For educational or leisure use.



Micro Computer Software & Accessories

Send cheque/PO to:
TROJAN PRODUCTS
155, Dereham, Dereham, Business SQ 111
Tel: (0706) 805481
TRADE ENQUIRIES WELCOME

FOR THE COMMODORE 64 & 128

CHARTRAC-64 - Produces text and graphs in any of 8 different formats. Data can be entered from keyboard or from Buscode I, Multiplex or DF files. Output to a wide range of printers. £24.95 (on disk)
VIDEOGRAPH-64 - Development package able more than 50 BASIC commands including lines, multicolor, sprites and turbo graphics, sound, memory management and more. Handy to a wide range of printers. Runtime version of programs can be distributed free of royalties. Price reduced to £34.95 (on disk)
PIVOTAL-64 - A full compiler producing fast 6500 code. Compiled programs run independently. Extensions for turbo graphics, sprites, and interrupt routines. £34.95 (on disk)
AMATORY OF THE 1641 DISK DRIVE BOOK - Packed with information including complete ROM listing and several useful utility programs. Now only £9.95

FOR THE VIC-20

Ten top quality games on one disk for only £3.95. Games on tape from £1.99. **VIGL** - powerful games language including 76 page manual and 9 games for £7.95 (disk £9.95).

FOR THE COMMODORE-16 & PLUS 4

Our catalogue lists over 700 games, books and utility programs. Generous discounts.
Send stamp or see for full catalogue (late computer).

ADAMSOF (Dept CH)
18 Norwich Avenue
Parsippany, N.J. 07054 (201) 524-3046



BUSINESS SOFTWARE FOR COMMODORE

PURCHASE LEDGER £80 + VAT
Desktop, detailed data for payment report, VAT analysis, list of current balances, labels, 30 "live" transactions on each account capacity, 200 accounts on 1541 or 4040, 600 on 8090 or 1200 on 8250.

SALES LEDGER AND INVOICING FOR OSMB4 200
Customer accounts invoices laid out to your own design. Statement desktop, aged debtors, address labels etc. **£85.32 + VAT.**

FINAL ACCOUNTS £80 + VAT
Full double entry book keeping in final balance, profits and loss and balance sheet. Includes special entry routines for purchases and sales and two types of journals, single debits matching single credits and groups of up to 100 of month-Merchandise analysis. 20 user definable reports, detailed audit trail printed on screen display for single accounts or all accounts. 200 named nominal accounts on 1541 or 4040, 700 on 8090 or 8250.

INTEGRATED ACCOUNTS £180 + VAT
All the above software combined into one integrated package also includes stock control, but this is not integrated with the rest.

PAYROLL £80 + VAT
The new P.L. rules, password protection, hourly, weekly and monthly basis, 7 overtime/overwork rates, all tax codes, pension and superannuation deductions, 9-9-D, etc.
Full refund on any item returned within 21 days.

Write or telephone for details and complete list.

Electronics Aids (Tewkesbury) Ltd

62 High Street, STEVENAGE, WORCS, WR11 1HG
Telephone: 0582 88329 or telex 83202



ULTRABYTE DISK NIBBLER with FREE BACKUP

"ULTRABYTE is a Great Copy Program"
"Overall Rating 9 of 10 - Most Effective"
INFO - 64, June 1985

- Copies 99% of software automatically
- Multiple - copy option. Make up to five copies of each original
- Copies 36 tracks including boot tracks
- Optional starting & ending tracks to copy partial disks
- Does not hammer disk drive
- Tone records when disk swap is needed
- Fast and extremely simple to use
- Automatically copies all drive errors, extra sectors, false 10's and other protection measures

£ 39.95 FOR 2 COPIES OF THE DISK NIBBLER

plus £1.00 AIRMAIL shipping. Mastercard, VISA (incl. exp. date), cheque or 40 drawn on US bank. Additional terms apply on £39.95 plus £1.00 shipping for Commodore 80 & 16K Disk Drive

To Order Call 24 Hour Hot Line or Write
ULTRABYTE (818) 798-9578
P.O. Box 789 La Canada, CA 91711 USA

DEALERS & DISTRIBUTORS WANTED

CLASSIFIED

MOONRAKER £5.95
 Only £5.95! Moonraker comes with the best flying first shooter ever for your computer. This game has a full 3D graphics engine, 20 different levels, 100 weapons, 300000 points, and PC is aimed at 320x200 with room to stretch to 640x480 with 256 colours. **£5.95**
 Best Selling Game 1989. **£5.95** Includes everything you need to get started. For £5.95 contact:

HOME COMPUTER REPAIRS

Send in your broken/old pieces or complete

100 XT	£60.00
286/386	£75.00
486/586	£85.00
386/486	£95.00
586/686	£110.00
686/786	£125.00
80386/80486	£135.00

plus others
 Above prices are inclusive for all delivery

All repairs carry a 3 month warranty on all repaired work.

MEMBERSHIP AVAILABLE TO ALL UK AND IRELAND. For full details, send a check to:

EDRM COMPUTER LTD
 1 Kilmartin Road, Belfast

GAMES WORLD
 Commodore 64 disks

PISTOL 2	£12.95
CORIAN	£13.95
SHOOTDOWN	£14.95
ARCHON	£15.95

And many more disks from top-selling S/W houses. Send for our catalogue and list, or call in our shop.

ACCESSMAILS/CARD

GAMES WORLD
 128 King Street
 Harrogate, North Yorkshire YO17 9AA
 Telephone: 01747 4447

FOR SALE

COMMODORE 64 cassette library has listed game and utility software, only one price £15.00 per cassette! 100 titles, details S.S.E. please. C.C.R., 19 Clarendon Way, Atlington, COXFORD, COX.

WANTED

CALLING ALL 64 modern owners, I've got a new computer, speedier, it's more speedier '83 and had a current subscription to computer press, contact me via computer, 161 10 5 M.C.T.

WANTED I would like to trade good original software, tape or disk for a personalizer for use with CANTON 10. I have rather bit to trade for printer. For full details, please write to: DSDS, PO Box 89, Derby, DE1 5DP.

RASD-HAM with CBMSA would like to contact other hams with CBMSA to exchange ideas in radio computer communications. Please write to M4 9L Kings, 9 Barnes Court, Wilms, Cheshire.

WANTED Journal Price condition covers will sell on my phone 0800 542121. Please be swift, 184.

C16 WORD PROCESSOR - TEXT 16

Personal word processor. Facilities include: Save screen text, search, insert, delete, copy, move, save, load text, variable tab, word count, right justify etc. Fully screen driven for ease of use. **Commodore 16** £100.00

C16 FILE - DATA 16

Index the place of any text index. Functions include: full text, word search, document, document graphics, search, find, insert and special characters, print 40-page records, variable fields etc. **Commodore 16** £100.00

All programs with full documentation and guarantees will can be used with all direct coated C16 printers including 1300 printer (except if required). Price includes VRT, packing and fast delivery by 1st class post. **Commodore 16** £100.00

A & C SOFTWARE
 Dept. 1, 18 Oakthorpe Gardens, Tivdale
 West Midlands B69 5LF

WANTED I would like to hear from any one with a printer in printer/printer they would like to trade or sell. For sale with C64 or must be left-hand and working condition. Good details of trader wanted at price to: No 2 Ashley Road, Mal Donns, Derbyshire DE1 3SL.

COMMODORE 64CB4 ports including colour display and disk drive. Complete with JoyStick, White Lightning, Helios, Super-Tape, Basic Compiler, Easy Screen, Easy File etc. £250. Phone Commodore 02044 760341 after 7pm or weekdays.

FOR SALE CBMSA + disk drive + MSX 801 + Gamma Speech + 12800 of software = many books, Total £2000. Sell for bargain at 1200 only. All still boxed. Call Paul on 017 3333 systems.

FOR SALE 166 for 30 and Data cassette recorder with software, graphics and two books on programming. 175 only. Tel: Stanlow (Stafford) 57105. Any offers welcome. Buy!

TO SWAP

HI CBMSA owners, I have a comprehensive range of software to swap or sell including Jetway, Long Mission, Shadow/Fly, Alan, 13th Mission etc, and more (send to 5 Mughy AVU, Lang-croft, Nottingham, Northern Ireland).

CBMSA SOFTWARE to swap on disk + exchange ideas with a French programmer. Over 200 titles including titles: Space, Earth, Ice, Ice, etc and games (Virus, Robot, Boyrath, Planet, Mission Impossible etc). Please post list and ideas to: Bernard Rayns, Rue de Montreuil, 69018 Bronville on Jura, France.

CBMSA SOFTWARE to swap. Tape only. Send list name to: Tom Hoggan, 3 Wandsworth Woodside, Bedford, Bucks MK2 6PL.

GAOSET £3.95
 The 1988, Machine Gun Game (which contains other video games) comes in a zip-up bag with 1000000 points. A zip-up bag with 1000000 points. A zip-up bag with 1000000 points. **£3.95**
166 **166** **166**
 Best Selling Game 1988. **£3.95** Includes everything you need to get started. For £3.95 contact:

CALL TRAINING BOOKS/PIN £34
 Windows Day Book
 Daily Tidings
 VRT edition PLSCDPI
 Book arrangement
 Daily call statement
 Detail listing of up to 99 numbers
 15 accounts for customer contact
 Final accounts

£1800 line, 187 and contact! **Demarcation pack** £1750 (refundable against purchase)

Call with order to: **Net-ON**
 Quax Court, 19, Neston Ave., London NW6 3SD
 01-832 5488 (ext 642)

Review Line

For the latest in CBMSA Reviews call us on 0696 55471 (between 9 & 9 pm)

Now look at our prices
30% off!

- Fractal game to HW £2
- Gamma Games 1 £3
- Graphics

Phone for other bargains

Review Line

GERMAN CBMSA user is looking for foreign CBMSA users to exchange software. I write about 200 programmes, please write to: Alan Brock, Telephone 013 86665 (Northampton 5, West Somerton)

SWAP UNEXCHANGED via 20 games. All offers prepared. Send list of games wanted. Use for UK or only Monday for via. Please Brother's 852820 in writing. J. Hutton, 10 Roman Camp, New Barn, Scotland.

OVER 100 British and American CBMSA games to swap. Please contact to: John Buchanan, 106 8th Street, West, Birmingham, B2 8JH and ask for mark after 4pm only

TO SWAP Stefan's Star Race original and Winny's My Home original for no cash for a 166 to a 166 original only. Money 044 21 5218 and ask for mark after 4pm only

WANTED CBMSA user with large collection to swap, and please send me your list with conditions. All letters answered. I'm only 200 miles, especially interested in adventure and utilities. Local Jingo, 80, 1st, Government, 19018 Paris, France.

Paintbox



AT AND
C16/Plus 4
VERSIONS
ALL ON ONE
FAST LOAD
CASSETTE

£9.95 R.S.P.

THE COMPLETE GRAPHICS SYSTEM FOR PRODUCING FULL COLOUR HIGH RESOLUTION PICTURES!

Paintbox is an advanced graphics creator program, containing all the latest hi-res drawing facilities. With a full selection of brush sizes and colours you can draw direct to the screen, with either joystick or keyboard control, and use the special facilities to create fabulous high-resolution pictures. Paintbox's special facilities include...

- Fill outlines with a colour
- Make frames or boxes
- Save pictures to tape or disk
- Swap shapes between pictures*
- Two separate drawing areas†
- Copy shapes*
- Draw straight lines
- Draw circles
- Plot ellipses
- Colour luminance control †

Now all the facilities of expensive touch-tablet and sketch-pad packages are available in one low cost, high value package - Paintbox!

* 64 version only.

† C16 version only.

Audiogenic

PRINTERS AT DISCOUNT PRICES

SHINWA CP8800



For the complete list of prices, see the advertisement on page 45. For more information, please contact: **PRINTERS**, 1221, Avenue of America, New York, N.Y. 10020, Tel. (212) 610-2200.

BROTHER HR5C

For the complete list of prices, see the advertisement on page 45. For more information, please contact: **PRINTERS**, 1221, Avenue of America, New York, N.Y. 10020, Tel. (212) 610-2200.

Software special!

WORDCRAFT (SMART)	\$8.00	WORD SCRYPT	\$8.00
WORDCRAFT (SMART)	\$8.00	WORD SPELL	\$8.00
WORDCRAFT FOR PC	\$8.00	WORD SCRYPT PLUS (MS-DOS)	\$8.00

NOTE: OTHER PRICES AVAILABLE. PLEASE TELEPHONE FOR PRICES TO APPEAR ON THIS PAGE. 1-811-2111. CONFIDENTIAL: NATIONAL, 4566661, 5-150-05101, 0031041, 011.



TO ORDER JUST TELEPHONE WITH YOUR ACCESSIBLE NUMBER OR SEND CHECKFORD (NAME SENT SUBJECT TO CHECK NOT OK).

0702-615809

15 EASTERN EXPLANADE, SOUTHBEND, INDIANA.

WARP® 5

GET A LOAD OF THIS!!!

£9.95 inc. P.P.

WARP® 5 will speed loading from your 1541 or your 5.25MB FLOPPY. Example: A 1541 BLOCK program which normally loads in 3.40 will load with WARP® 5 in 10 SECONDS! WARP® 5 also includes enhanced DOS commands for easier use.

Also includes a bonus program — BOOT MAKER Convert your machine — code programs to AUTO — RUN — WARP — LOAD from disk.

TOOLKIT MK. 2

NOW THIS BEST SELLING COLLECTION OF 1541 DISK UTILITIES IS EVEN BETTER!!!

Includes:

- ★ FAST DISK COPER ★ EVEN FASTER DISK COPER
- ★ LOADING ADDRESS INDICATOR ★ AUTO RUN MAKER
- ★ DISK CHANGER ★ FILE LOCK/UNLOCK ★ DISK DOCTOR
- ★ DISK DRIVE MONITOR ★ DISK LOG ★ FILE RECOVERY
- ★ COMPACTOR ★ FILE COPER ★ DISK ERROR LOCATOR
- ★ DISK ERROR MAKER — MAKES READ ERRORS (0, 1, 2, 3, 4) AT A SPECIFIC ADDRESS ALLOWING YOU TO BAK-UP ALL YOUR VALUABLE PROTECTED DISK SOFTWARE!

Only £17.95 inc. P.P.

Very special available to original TOOLKIT owners. Please write for details.

Contact number under code £17.95

Send cheque or P.O. to:

MPS SOFTWARE

36 Alexandra Grove, London N4 3LP
01-800 3502

** TAPE BACK-UP DEVICES **

DCL — Interface	The DCL 1500 has two Densitrons, so that loading the software is completed in a BACK-UP TIME of 10 minutes. It has a built-in timer. £8000.40.00.01. PRICE £12.00
DCL4 Interface	The DCL4 2001 is the latest with two Densitrons and two magnetic tapes. Back-up tapes can be made on either 1/2 inch or 5/8 inch tapes. It has a built-in timer. £1500.00.00.01. PRICE £7.00
DCL4A Interface	£880.00 in the DCL4 has been with an Audio tape. £7.00. PRICE £6.00.00.01. PRICE £7.00.00

** BACK-UP PROBLEMS SOLVED **

Alignment Tape	Modify your Densitron tape head using 30000001 with this tape. This tape has the capability of aligning the tape heads. It has a built-in timer. £1500.00.00.01. PRICE £7.00.00
Tape Head Demagnetiser	The most powerful demagnetiser. It can't miss any tape. It has a built-in timer. £1500.00.00.01. PRICE £7.00.00

** 81 LEADER CARTRIDGE ** for 1541 Drive **

GT Leader Cartridge	This cartridge contains your 1541 address for disk 4.5. It contains 1000 words of data. It has a built-in timer. £1500.00.00.01. PRICE £7.00.00
---------------------	-------------------------------------------------------------------------------------------------------------------------------------------------

** FREE CATALOGUE ** Please send TYP stamp

For details of prices and more other products of our company, please send TYP stamp to:

1221, Avenue of America, New York, N.Y. 10020, Tel. (212) 610-2200.

** 10 DAY MONEY BACK GUARANTEE ON ALL HARDWARE **

Terms:	Shipping and handling charges included. Delivery in 10 days. 100% satisfaction guarantee. 100% money back guarantee.
TRILOGIC	29 HOLME LANE, BRADFORD SD4 0QA TEL: 0274 604288

DYNAMITE SOFTWARE

DATABASE 84 The most powerful database system ever... £19.95	ASSEMBLER 84 A very professional development... £19.95
ZOOM FASCAL Powerful structured computer programming... £19.95	OXFORD FASCAL Complete A&S Pascal Compiler... £19.95
FRENCH 84 GERMAN 84 Complete French and German... £19.95	SUPER DISK UTILITY Super disk utility... £19.95
FREE Assembler, game or editor with every order over £15. Disk or Tape.	
ANATOMY OF THE 1541 DISK DRIVE 600+ page book... £19.95	

Send 20p stamp for 20 page catalogue (version 00112)
 All programs come with a comprehensive manual
DYNAMITE SOFTWARE
 DEPT CH, BCM 8713 LONDON WC1N 3XX

SPEAKING MIND



Atari's Voice Master is a versatile 64 add-on which allows you to record your own voice and incorporate it in Basic programs. Now you can win one of five of these boxes of tricks, with cassette and disk software, just by speaking your mind . . .

LAST MONTH we reviewed Atari's amazing Voice Master speech digitiser for the festive month, as promised, we're giving you the opportunity to win one of FIVE of these unique additions.

Voice Master, which costs £99.95 in the shops, consists of an interface unit, a headset with microphone and software on cassette and disk. Used with your 64, it enables you to:

- Record the sound of your own voice, or any other sound
- Reply the sound at a variety of pitches and with special effects added
- Incorporate the sounds in your Basic programs, which can be used without the Voice Master fitted
- Program your 64 to respond to speech input
- Play music on the SID chip by humming or whistling into the microphone.

The potential of the Voice Master is only limited by your imagination, and if you want to hear some of the things you can do with it, you just have to try Atari's games *Play-a-Side Jump 26* or *Clas De a Limb*, all of which incorporate Voice Master effects.

All you have to do to win one of the five



Voice Masters we have on offer is to supply an appropriate, original and amusing caption to our picture of the alien from Atari's software evaluation department!

The five fancies captions submitted before the last working day of October will win the Voice Masters. Send your entry on a POSTCARD (or the back of a sealed envelope) to Atari Competition, Commodore Horizons, 11-15 Little Newport Street, London WC2H 7FF; not forgetting to add your name and address. Normal competition

rules apply; winners will be announced in the December issue.

Previous winners

The winners of the BOG competition in the August issue are C. Ward of Synodham, J. A. Bassall of Harpole and J. Kalkola of Looe. Each will receive a Protonics BOG home robotics interface.

+

The winners of the Graham Green autographed cricket bat and Autographic Test Cricket game is Robert Lee of Bland. Three winners-up get autographed copies of the game: M. Cursons of Hornchurch, D. Wilson of Northwick and M. Sutton of Barnwell. Thirty consolation prizes of copies of the game go to: D. Connauld, Bedford; S. J. G. Boney, Birmingham; J. Pickard, Derridge; I. Melling, Wigton; B. Sanders, Rushden; M. A. Cooper, Hemel Hempstead; C. Lucas, Darwell; S. Beale, Enfield; A. Kelly, Worthington; C. Prew, Hemmington; D. Edwards, Strathly; K. Flanagan, Charnock; S. Bradley, Kincross; N. Curtis, Moulton; S. Wormald, Sowerby; N. Wood, Dereham; D. N. Wall, South; T. Brown, Colchester; M. Davies, Llanddulas; T. Hadford, Witley. Graham Green's Test Cricket is now also available on disk at £1.95, retaining all the features of the original cassette version.

+

The winner of the Brother HB2-C printer in our July contest was Andrew Tibbitt of Birmingham.

Mr. Software



FREE GAMES!



YES...place an order for our Commodore 64 Magazine and we will send you one of the above games absolutely free. We will also enrol you in our Discount Software Club enabling you to purchase software at huge savings over shop prices. We offer all the latest titles at substantial discounts such as, **Frank Bruno's Boxing** at £3.95 (saving £3.00), **Frankie Goes To Hollywood** at £6.95 (saving another £3.00) or **Spy Versus Spy** at £6.95 (saving yet another £3.00). We also have a number of older titles at even bigger discounts, such as, **Attack of the Mutant Camels** at £2.95, **Chinese Juggler** at £1.95, **Scuba Dive** at £2.95 etc. In all we have over 200 titles available for your computer.



SIX MAGAZINES A YEAR

A subscription of just £5.90 will bring you six magazines a year through the post. Each magazine is packed with reviews of all the latest software, reader's games playing tips, competitions to enter, our reviewer's personal choices and a summary of how the other magazines rate the new releases. **HARDWARE AND UTILITIES SUPPLEMENT**

Every new subscriber to the magazine gets a 32-page review of some of the more popular utilities — such as word processing software — and hardware including joysticks.

HOTLINE KEEPS YOU UP TO DATE

Subscribers to the magazine can phone our 24 hour Hotline for up to the minute news of the latest releases. A three minute recording, updated weekly, details the new titles and their prices. Club members may order by phone too!

EASY ORDERING

You can order from our substantial range as and when you like. There are no minimum order requirements — you don't have to buy anything at all. When you do order we do our best to dispatch your goods within a week — often quicker.

DON'T TAKE OUR WORD — here's what some of our subscribers say:

"Many congratulations on your excellent Club, keep it going please!"
Mark A. P. Colbrook, Poole, Dorset, Dorset

"I think your Club is sensational, terrific — also the goods after each magazine."
David Barnes, Birmingham

— Open every month for orders —

Mr. Software

KELVIN HOUSE, TOTTERIDGE AVENUE, HIGH WYCOMBE, HP12 6GG. 0494 60887



— Mr. Software —

SUBSCRIPTION FORM CH 1088

I wish to become a subscriber to the Mr. Software
Commodore Magazine

for the next 12 months, for which I enclose £5.90 (underlined) to allow me your most recent Club Magazine by return and that if I am not completely satisfied within two weeks I can return the game to magazine for a refund. I would like to see FREE game:
 Frank Bruno's Frankie Goes

Name (please print) _____

Address _____

Payment: Cheque Postal Order No. _____

Or charge by Access/Visa account

£5.90 applies to UK & EFTA only. Other rates are £7 Europe, £8 USA & Middle East, £12 Australia. No cash in N. Africa.

HITS TO HIT YOU FOR

NOW GAMES

AVAILABLE FOR THE COMMODORE 64 AND
SPECTRUM 48K FROM 21 AUGUST FOR ONLY £8.95

Now Games is a chart-top compilation of all the bestselling games from five major software publishers. You'll find better value for money, of course, if you visit our store — NOW GAMES STORE / CALL 508 TWAME!

1
2
3
4
5
6

LORDS OF MIDNIGHT

— An atmosphere of mystery and suspense, Lords of Midnight is over 2,000 screens.

BRIAN BLOODAXE

— Brian becomes the first in this original, 5Mbytes platform game.

STRANGELOOP

— Many games to choose from, the excellent point-and-click adventure that reboots arcade adventures with 3D1 screens on the Spectrum and 48K on Commodore 64.

PYJAMARAMA

— Make it happen in a whimsical, you-trust guide the family step-by-step. It's the most fun in this arcade adventure.

ARABIAN NIGHTS

— Platform and arcade action are combined in this exotic game.

FALCON PATROL II

— All action in the bonus level! Guide a falcon jump jet to defeat obvious enemy helicopters in this arcade game.

So rush to your nearest good software retailer and
increase your games collection by fun and fall swoop!

AVAILABLE FROM ALL GOOD SOFTWARE RETAILERS

Also available directly from:

NOW GAMES MAIL ORDER, 2-4 WINDMILL LANE,
RD PORTOBELLO ROAD, LONDON W11 2JL

1
2
3
4
5
6



COMMODORES LOVE ELEPHANTS



ELEPHANT MEMORY SYSTEMS get the best from your Commodore. **ELEPHANT** printer ribbons, head cleaning disks and computer cleaning kits are now added to the **ELEPHANT** family to provide you with a total computer supplies package. Together with **ELEPHANT MEMORY SYSTEMS** disks — certified 100% error free and problem free and guaranteed to meet or exceed every industry standard — **ELEPHANT** is now more than ever the brand to trust.

Dennison

ELEPHANT NEVER FORGETS

Dennison Manufacturing Co., Ltd.

Central Park Mall, Suite 820 877, St. Paul, MN (650) 4444, Telex 960001

France: Dennison est aussi chez DENN, Boulogne

UK: Dennison is also known as DENN, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Germany: Dennison Computer-Systeme GmbH, Postfach 100, 4400 Bochum 10, FRG
Italy: Dennison S.p.A., Via Sesto Piano 100/101, 20080 Sesto San Giovanni, MI, Italy
Spain: Dennison S.p.A., Via Sesto Piano 100/101, 20080 Sesto San Giovanni, MI, Italy
USA: Dennison Manufacturing Co., 10000 S. Bascom, San Jose, CA 95128

5/5 27 2000 20