

YOUR

DECEMBER 1989 \$1.50

COMMODORE



C64
AMIGA
C128
PLUS 4
PC

GHOSTBUSTERS II

I ain't afraid of no ghost!

Operation Thunderbolt

• Altered Beast • Batman

ISSN 0269-6277



0 7 7034 402 7007

DATTEL ELECTRONICS

DATA RECORDER



- Quality Commodore Compatible Data Recorder
- Power controls, monitor, etc.
- Available for 64/128
- Small case for portability

ONLY £24.99

NOW WITH "JIFFY DOS"!



**OCEANIC 118M
DISK DRIVE
FOR 64/128**

NEW

The Oceanic 118M is a superb quality Disk Drive specially designed for the Commodore 64/128.

Just look at these features—

- Sleek design - nice compact
- External Power Pack - no interfering production (noise) power supply
- Ready to go - no need to tap
- Heavy duty casing for rugged operation and extra long life
- No probably obsolete belt milling mechanism that fails on the 64/128
- Inside complete with standard connecting leads etc.

**ONLY
£129.99
INCLUDING FREE
DCP
ART STUDIO!!**

**FREE COPY OF DCP
ADVANCED ART STUDIO
(WORTH £19.99) WHILE STOCKS LAST**

DCP



SPRINT 128

- Full feature Descriptive Printer Interface
- Complete year 80/128 in a range of full size Descriptive Printer Interfaces
- Easy to use - Supports Commodore On-line file
- Outward Microprocessor Chip - enables on-line programming to work
- Works with most manufacturers
- On-line to host

ONLY £29.99

**PARALLEL
PRINTER CABLE**

- Connects full size printers to the parallel port of your 64/128
- Many programs and utilities require parallel technology (e.g. word processors, games etc.)

ONLY £12.99 COMPLETE

**ROBOTEK
64**



**MODEL & ROBOT
CONTROL MADE EASY.**

- A range of choices - each with individual notes
- In-depth electronics - each fully explained (V.I. level onwards)
- Step-by-step layout with full kit list
- Includes layout for robot control
- Software included - test mode / complete construction / under construction / digital control etc.

ONLY £29.99

(INCLUDING HARDWARE/SOFTWARE/MSD, 270/270/271 TAPES OR 800)



**DIGITAL SOUND
SAMPLER**

- The new sampler allows you to record any sound digitally from cassette to then transfer it into a recording file
- Playback sounds like records with extra effects (Vib, reverb, etc.)
- Now you can record anything available to produce outstanding effects
- Full 4 bit to 4.8 KHz conversion
- With cassette this unit contains everything you need for the £29.99 price tag
- Use effects (noise, reverb, etc.) and clear display of waveform
- Use to test or store out of circuit components
- Powered operation with battery backup
- Load/store samples - 64 bit 16 samples in memory to test files
- Programs software/hardware package - Easy to Use (press enter)

ONLY £49.99

CONNECTION

- DIGITAL DRUM SYSTEM**
- Now you can test your digital sound system to make sure it works
 - Digital drum sounds to identify an area drum
 - Complete with 4 drum files, 4 drum control - test equipment
 - Includes software/hardware package with test & play files
 - Full editing - Mixes drums, Load / Store facilities
 - Output to 80/8 or storage TV speaker
- ONLY £9.99**
270/271 TAPES OR 800



**RESET
CARTRIDGE**

- Replaces a reset button
- 270/271 reset port changes type - user software altered by volume on set compatibility
- Works with all valid "compatibility" programs
- Add prices from magazines etc.
- Always plugs in to cartridge port.

ONLY £5.99

**3 SLOT
MOTHERBOARD**



**SAVE WEAR & TEAR ON
YOUR EXPANSION PORT**

- Will accept three cartridges on its high speed PCB
- Allows to run any slot
- Fully balanced
- Super feature and an essential extra item

ONLY £16.99

TOOLKIT IV

THE ULTIMATE DISK TOOLKIT FOR THE 128/128L

- **1.2MB COPY** - An absolute must for the serious disk user. Toolkit IV has some features that make this tool
 - **DISK FORMATTER** - Used to write any data to sector (including sector 0) in individual tracks. Repair
 - **Advanced utilities** - Includes **DATA EDITOR** - Deletes & Displays (A-Z) Sector Information including all files in sector per Sector, the entire header & header gap. Includes **FORMAT** - Sets sector size, sector skip, etc.
 - **DISK MON** - Real time monitoring. Records lost files, displays file size and addresses. Monitors any file program directly from the disk or monitor or floppy including subsector/sector operations, data files.
 - **FAST FILE COPY** - Invents the copy. Works up to 4 times normal speed.
 - **FAST FILE COPY** - Copy an entire disk to a volume or file using single (S)
 - **FILE CONVERSION** - File conversion programs by up to 100% hard disk user.
 - **UNDELETE** - Deleted folders as well as files or folders you have deleted (up to last 1000 files)
 - **FORMAT DISK** - Quality disk is essential to avoid errors including sector 0 (individual tracks on sector 0) and sector 1 (to 11).
- ONLY £9.99**

EXPLOSION



Above: Computer Users, page 46

Above: Ghostbusters II, page 60



ALTERED BEAST

Above: Altered Beast, page 24



Left: Flame On, page 30

MONTH'S PROGRAMME

YOUR COMMODORE

THIS MONTH'S PROGRAMME

FEATURES

68 Ghostbusters II
They're back, and this time they haven't got a ghost of a chance (groan!)

68 Computer Auctions
Our man Banner investigates the man who would sell their own grandmother.

74 Rock Circus
Was definitely 'works in this London venue' - YG's reports.

REGULARS

8 News
The IFC Show, Jaks, Sweeney-Hell! gets re-audited and spat out.

10 Budget Columns
What can you get for £1.99 that you can stick into your datascorer? A small fish of course (or a budget game!)

30 Poster POSTBUSTERS!!

58 Hackatak
Have you ever seen Kirk's eyes? No, I didn't think you would!

60 Big Wobbly Cargo
You can win loads! Accumulate goodies!

70 Flame On
Squart Green (the man with no Spleen) delivers a dose of comic capers.

77 Next Month
Next month will be the month after this one, and the month before the month after.

78 -4 Software
You too can buy some lovely software bits for your C16/Plus Four.

82 Back Page
Sordid, gossip, rumour and pink news.

GAMES

12 Mindscape Preview
What are Mindscape doing over the next few months?

13 Sir King/Critique King
Has the King? Better still, now on the King!

14 Wayne Gretzky Hockey
John followed up by Fatima Whitbread All-in Bear Wrestling.

16 Scorpion
You can play a character that is deadlier than Mad

Jack McDoan, winner of last year's Deadest man competition.

18 Virgin Mastertronic Preview
I think we're treading on virgin ground.

20 Operation Thunderbolt!
You doctor, I think we should remove the Thunderbolt immediately.

22 Batman The Movie
Now here's a game that nobody's heard about.

24 Altered Beast
I know where the 'Beast' comes from, but put the 'ard' in Altered. (Thanks to Jaks for that one!)

26 Stone Across Europe
Acc. A Day in the Life of an England Supporter.

28 Tynesoff Preview
The old you Tynesoff Tynes again!

29 Xenomorph Preview
Tony Hart's character gets everywhere.

DE GEEZER TALKS...

Hall rambled, growled and poured through small cracks in the pavement. It grew, expanding into a large, horrific monstrosity, lining the skyline and blotting the sun. It had a size and a name. The size was Earth Court. Its name was "PC Show".

I would like to take this opportunity to thank companies and freelancers for making my PC Show this year slightly better than being roasted on the spike of eternal pain (as it was last year). It wasn't a mammoth event, but at least my clothes weren't soggy.

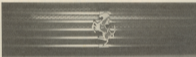
Those who haven't noticed, this is our Christmas issue (and what an issue), but I think I'll use the rest of this space to promote the next issue; it certainly deserves promoting.

As from next month, TC will be a different magazine to the one that we have all become used to over its five years of existence. One major move is the inclusion of a free cassette every issue, full of games, games, and more games. The interior will change in content too. Your Programmer will depart (aha, aha, and other words beginning with aha), but to replace it will be an abundance of new regular columns.

There will be new staff too, to make sure our games coverage will be the most up-to-date available, with tonnes of hot exclusives. So make sure you've got an order with your next month's one, we wouldn't want you to miss out now, would we?

Bill Henderson

All the staff wish our readers a splendid Christmas.



Above: Sometimes we go too far!

The contents of this publication including all articles, designs, drawings and programs and all copyright and other intellectual property rights therein belong to Argus Specialist Publications. All rights reserved by the Law of Copyright and other intellectual property rights and by virtue of international copyright conventions are specifically reserved to Argus Specialist Publications and any reproduction requires the prior written consent of the Company. © 1988. Distributed by SM Distribution, 6 Leighton Court Road, London SW18 2PG. Printed by Chase Wills, Plymouth. Opinions expressed in reviews are the opinions of the reviewers and not necessarily those of the magazine. While every effort is made to thoroughly check programs published for errors we cannot be held responsible for any errors that do occur.

Your Commodore incorporated by Your 44 is a monthly magazine appearing on the first Friday of each month. Argus Specialist Publications (Editorial and Advertisement) office, Your Commodore, Argus House, Rensley Way, Hemel Hempstead HP2 7ST, Telephone: 0447-90000. Subscription rates upon application to Your Commodore Subscriptions Department, Indiana Ltd, 5 River Park Estate, Parklands, Barns HP1 1LL, U.S.A. Subscription Agent: West Coast Worldwide Publications, 2111 West 28th Street, Torrance CA 90505 U.S.A.

ISSN 0369-8277



PC Show 1989

This year's PC Show was a good disappointment for the record crowds that turned up to be topped by the industry's Christmas fare. As each year goes by, more companies are abandoning the principle of showing computer games and getting hooked on cramming as many arcade machines into their smaller and smaller stands.

Given that an impressive position which formed the entrance to the leisure section of the hall. Flanked by two Pilder Cadillac, the main feature was a video wall showing forthcoming attractions, including The Unsubmittable.

CS Gold's crowd pleaser was an Outrun Ferrari, while Microscope went for an early Harley Davidson - was this the alternative Motor Show?

Without a doubt, the show-stealer was Denmark's Hard Driving, a strong tip for the Christmas number one. This conversion of Ferrari's coin-up has the added attraction of an action replay which allows you to relive the moment the car completed. The stand track is particularly exhilarating.

This year the leisure section couldn't fill the area allotted to it. Many of the big players were either missing or represented by mini-mum-area stands. Where were Micrograph, Alternative or Code Masters? You could be forgiven for missing Micrograph's stand which could have been set up in a telephone booth - considering the size of the company it was an insult to their customers. Perhaps the booth was meant to attract attention to the company's take over of Telecom. At least Activision had a few *Ghostbusters* doing the rounds.

I think the effect of the whole Show could best be seen by the way the massive crush at lunchtime thinned out before mid-afternoon, and almost emptied an hour before the event closed.

Frustrated that there was nothing there to keep them interested.

DATA

Below: Show me a show and I'll show you a show.



Below: The PC Show, an exhibition with more computers than a particularly well-armed missile silo. Commodore were there, as were MS Gold but both were soon overshadowed by the last!



Show Wars

Who would have thought that this year's PC Show would be the last? Come to think of it, it was rather like a waker. Some of the glitter of its past glory was still there but it was as tarnished as last year's steel.

In the days when the event was known as the Personal Computer World's Show, named after a magazine of the same name (in fact, both show and magazine were conceived in the Touchdown, a coffee house close to Earls Court) it was sponsored by publishers, VNU. At this year's Show a bullet appeared, from a

different publisher, advertising an event called The European Computer Entertainment Show which is booked into Earls Court for 13-15 September 1990 - the exact date of the next PC Show.

The question goes begging, what will happen to the PC Show? Has it disappeared without trace or will

it still go ahead on another date or at a new venue? VNU has gone awfully quiet but maybe that's a sign that something's going on behind the scenes.

Judging by the peer showing within the entertainment section at this year's show the new ECE Show could have problems even before it starts.

King Hell

Demonic is the only way to describe Rick Mayall's performance at US Gold's FTP side-show. Every day, after the Show closes, the exhibitors hit the town for various alcoholic frolics. There's usually one event that stands head and shoulders above the others and this year it was US Gold's turn.

The select assembly at London's *Lowlife* club were treated to a preview of

US Gold's latest video (shown) after which company boss Geoff Brown announced a personal appearance by Michael Jackson. Not 1985 Michael Jackson but a moonwalking clone from Deported.

Then the Halliagh Chorus lauded the appearance of the night's star turn. Nothing happened. Then the music reached a crescendo once more and amidst a series of thunderclashes, Mayall appeared with his hair lapped up into two



Shown: Rick Mayall, Michael Jackson and Geoff Brown, all of which involving their own brand of humor.

long hairs. He then proceeded to prove what a hairy little devil he is with an act which was liberally sprinkled with words that would remove him from any bulletin board in the country. The performance was superb though it still needs to be tightened up to give

maximum impact. Witly jokes and snarling are more the preserve of Bernard Manning than the laughing stock in trade of an alternative comedian.

If I remember nothing more about the Show it will be US Gold's evening treat.

DATA

What's the score?

Microprose boss, Major (Wild Bill) Slocum had a lot on his mind during the Show. Fantastic nocturnal phone calls to the States as much as four times a night. Was the company going down the job? Had the Russians attacked Microprose HQ? Surely some disaster had bestricken the company. But no, his frantic calls related to his second greatest obsession, baseball! All he wanted was to keep up with the action as it happened.

Microprose's *Rainbow Warrior* has upset one of

Greenpeace's international divisions. Company PR man, Martin Meib, couldn't remember whether it was Belgium or Switzerland but the game, without sanction, is therefore banned. It appears that a magazine is now running a campaign to get Greenpeace to sanction the game so that it can be released.

This is a new situation for Microprose, normally its game get banned in certain countries because of their war-mongering scenarios. To balance this they've entered the peace market and consequently get banned.

Make or Break

Would-be games machine manufacturers, Kenix, seem to be getting plenty of support from the software industry but the Show leaves a couple of questions unanswered. Considering the Kenix Christmas push will start in November, it would be expected that everything would be up and running on the Kenix stand. Well, everything was up - the games, the novel controller and the large frame to mount everything on. The problem was that only the games were running.

Nowhere was there a finished, fully working and fully visible machine. The

machines that were working were hidden in wooden boxes and controlled by conventional joysticks. The machine frames on display were apparently no more advanced than those on display in the early part of this year. No journalist has seen the fully working machine as close scrutiny of any article will show.

If the Kenix was going to be a success this year it should have been seen in all its glory. What happened? The company has had a year to get it right are numerous financial and technical problems correct? It's about time Kenix boss, Wynn Holloway, came clean. All will become clear in November.

Utterly Dull

Every year, companies try to attract the punters with personal appearances by shrewd personalities. To say that the high point was Timmy Mallet on the Atari stand gives some idea of the depths of insularity that the

Show has now reached.

As a crowd puller, Atari's stand worked. Timmy showed how utterly, utterly brilliant he is at beating kids on computer games and wearing those whacky outfits that will ensure that he never wins the best-dressed man of the year award.

DATA



Above: Not so free software.

One Good Nurd...

Who were the pillocks in the 'Soft' on FAST' exhibit? Why not wear a shirt that says 'Kill the industry'. What nards.

In case you don't know, FAST is the Federation

Against Software Theft whose primary aim is to prevent the organized ripping-off of software.

To turn up for an industry show while wearing a provocative slogan is just asking for trouble. We hope they found it.

Novagen's Damocles

Though absent from the Show, Novagen is about to release *Damocles*, the sequel to the magnificent *Affinity*.

Damocles was first previewed as a demo at the PC Show in 1983, since which programmer Paul Wenzel has been working hard to get

the 3D flight game off the ground. In the game, the comet damocles is heading towards the planet Eric. By exploration the player has to discover the necessary objects to prevent the disaster.

The release date is definitely pre-Christmas and at £24.95 for the Amiga, it could be a surprise Christmas hit.

Programmers Unite!

The Society of Software Authors (SSA) stand attracted a steady trickle of programmers, graphic artists, musicians and games designers who were curious to know what it was all about.

The SSA has been founded to serve the needs of professional software authors by giving advice, helping with problems and generally turning the rag tag industry into a professional body. Full membership costs £20 and is open to any author who has had at least one title published. For unpublished authors, the

annual subscription is £30 for associate membership. Amongst the societal benefits are business guidelines to help with VAT, solitons and money chasing, plus the excellently informative newsletter full of news, warnings, and professional equipment (hardware and software) reviews.

According to Merv Dale, director of Fluid Agency Developments and SSA member, the society has already attracted some of the big names in the industry but there's always room for more. Further details can be obtained from the SSA, 6 Callow Court, Barbargo, Wiltshire SN4 1TR.



Above: I'm getting on my top hat!



Above: The Level 9 hit rate.

Levelled Out

Britain's senior adventurers, Level 9 Computing, is pulling out of the adventure market after the release of *Scapgoat*.

According to L9 designer, Pete Austin, "People have been declaring the death of the adventure market for years in *Scapgoat* is an appropriate final release. It comes from beyond the grave."

The company has been producing adventures since 1981 and it is sad to see them go. Perhaps part of the problem lies way back when *Milbourne House* produced

The Hobbit and took the software market by storm. L9 resisted following the new style of adding graphics to adventures, a concept pioneered by Sierra Online many years earlier. Since then Margaret Scott has further advanced the popular adventure while L9 has maintained the opposing view that complexity of gameplay is the main thing.

Whatever the reason for the move, we thank Level 9 for hours of fun and we look forward to their new venture as an arcade-style games company using their new development kit, MUGLE, for 16 bit programming.

THE BIG AND WOBBLY BUDGET COLUMN (OOER!)

BOMB JACK II

Imagine PacMan crossed with a platform game and you will have some sort of idea of what Bomb Jack II is all about. There are forty different screens — split between a reptile infested lava pit and water space — each consisting of a number of platforms. On these platforms are a number of bombs to be collected but inevitably, they are pre-empted by pursuing monsters.

Jack has to find a route round the platforms either dodging the badities or repeatedly stabbing them until they disappear from the game. Wait too long and the lizard men in their various incarnations leave their regular patrols and start chasing round the screen. There are bonuses to be collected if you manage to defuse all your bombs in the specified order.

Unlike the original game, you cannot leap willy-nilly round the screen. Instead, you can only move sideways onto a platform on the same level, or up and down to one immediately above or below you. This means that not only does your timing have to be pretty good, but you also have to pay considerable attention to your intended route.

As far as the game goes, that just about sums it up. Despite some fairly graphics, Bomb Jack II is highly addictive and, if the sequel is not quite as good as the original, this is definitely the

Five cheapies on the new ENCORE label. Are they raves from the grave or should they be buried for ever? Gordon Hamlett takes a look

KOKOTONI WILF

This is the eldest of the six titles dating back to 1984 which, in terms of computer games, makes it practically a museum piece. The great magician Ulrich has discovered that there is an object or evidence of such great power that he must possess it. Unfortunately, the fragments of the Dragon Amulet are scattered through the fabric of time itself and Ulrich is an old man.

Ester Wilf, his protégé. You have been charged with recovering the various fragments for your master. The only help that he can give

you is to fix a pair of wings to your back, allowing you to fly over the many hazards.

The game is divided into several time zones and you have to find a way through the maze system, following his of the amulet until a time gate appears transporting you to another period of history.

The game involves little more than moving round the screen, avoiding bumping into the many obstacles. There isn't even any combat to keep you on your toes. Wilf is definitely beginning to show his age now. Everything about it is cruddy, the graphics, sound and gameplay. Unless you happen to be a nostalgia freak, you would probably do best to give this one a miss.



INFO

Overall:
28%

best game in the collection and well worth considering.



INFO

Overall:

77%

STORM WARRIOR

This is the only game of the five previously mentioned, so the Emperor label is something of a misnomer but never mind. You are the Crown Prince of your Kingdom and as such, are expected to rescue the land from a Wicked Witch's curse. She has summoned a vicious thunderstorm destined to last for one hundred years unless you can do something about it.

Your ultimate aim is to find the witch's castle and destroy both her and the undead forces she commands. Before that final encounter you must battle your way through a forest, fighting off warriors and dinosaurs. The instructions don't actually tell you how to accomplish this, you must find out by trial and error although the moves are a fairly familiar assortment of swordsmanship, kicks and sweeps with your sword.

Timing in the combat routines is not particularly important but where you stand on the screen is, if you stand too close to an opponent, you will miss him no

matter how good your swordplay is. Kick him a few times to make him back off a bit.

Storm Warrior is not in the top division of best-selling games. The animation is poor and the battles lack the realism and excitement that would put them in the top league. An average game but then you get what you pay for.



INFO

Overall:

44%

TURBO ESPRIT

"Race your Lotus Esprit round the city chasing drug barons" claims the blurb. It is only when you get behind the controls of your car that you discover that it handles more like a Model T Ford as it chugs along.

Four smugglers' vans and an armoured vehicle are at large somewhere on the city's streets and it is up to you to find them. You must then take them out by either blasting them or continuously bumping into them until they surrender. There are pedestrians and other innocent cars to avoid if you don't want to incur penalty points and you can also wipe your car off by driving into a brick wall. My favourite bit though is that you have

to stop for traffic lights! Imagine it, a high speed chase, guns blazing and the lights suddenly turn to red. Do you really believe that everybody is going to stop and wait for them to turn to green again?

There are four cities to choose from, each laid out in typical American grid formation. You can call up a map to show your location as well as that of the enemy cars. Messages inform you that the armoured car has just been spotted on E99 or whatever. The problem is that you have to wait ages before you actually arrive on the scene. The balance of this game is all wrong.

Deceitful graphics, control and gameplay only serve to emphasize the faults inherent in Turbo Esprit. I didn't like it when it was first released and things have not improved with time.



INFO

Overall:

23%

DEEP STRIKE

The war in the skies over Europe in the First World War was supposed to be the last combat arena where cavalry played its part. Pilots frequently saluted each other before duelling to the death and it was not the

done thing to gas down an opponent who had run out of ammunition.

Deep Strike quickly dispels all the myths! You are a single fighter pilot trying to escort four bombers on a vital mission. Pitted against you are the massed forces of the German Air Force - Von Richthofen himself, the Red Baron together with his squadron of implanes. Then there are all the barrage balloons and some decidedly anachronistic tanks and field artillery, all trying to blast you out of the skies.

You can climb, dive and bank as you try to avoid the enemy. You have no sights on your plane so all shooting amounts to guesswork. That is if you want to shoot in the first place. You have a decidedly small amount of ammunition and should you decide to defend yourself to any great extent, you will find that you have run out of bullets before you are half way to your target.

This is a below average shoot-em-up and doesn't offer a great deal in the way of lasting appeal. If you are looking for this sort of World War One flying game, look out for a copy of Blue Max, the old US Gold game which is infinitely more playable.



INFO

Overall:

39%

There you are, trying your hardest in six different events - juggling, knife throwing, tight-rope walking, trapeze, high diving and human cannonball when you discover that someone is trying to sabotage your act.

Freddie Freddy is out to get you. Who has employed him, nobody knows but he is definitely out to make your life a misery. Little things give it away such as waiting until you are sitting on your unicycle juggling such diverse objects as knives and bubbles before throwing you a bomb. And who is it who tries to hit you on the head with a hammer when you are hanging on to a rope for dear life?

The graphics in **Freddie Freddy** are superb - very high quality animated cartoons. If the idea of a cartoon pie in the face makes you fall about laughing, this could be just the game for you.

On a completely different tack, **Mindscape** are now responsible for Origin's games in this country and there are three new titles forthcoming on that label. **Windwalker** is a successor to **Master**, the Oriental fantasy role playing game that combined strategy with arcade beat-up action. This time, you must build up your character from that of a humble fisherman to martial arts expert.

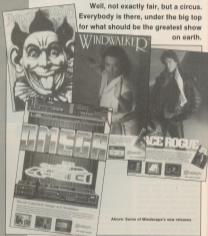
Omega sees you trying to design the future of the future. Apart from testing your creation in various battle simulations, you must also strive to introduce artificial intelligence into your latter day levitators. The final game of this trilogy is **Space Buggy**, a science fiction role playing game. There is an entire universe to explore as you try to discover both legal and illegal ways of acquiring a fortune. **Combat** features solid 3-D graphics and there are many extra graphic sequences as well as a whole host of problems to be solved as you encounter

PREVIEW IT'S ALL IN THE MINDSCAPE

Roll up, roll up, all the fun of the fair.

Well, not exactly fair, but a circus.

Everybody is there, under the big top for what should be the greatest show on earth.



Above: Some of Mindscape's new releases.

space pirates, fly through shard storms and risk who knows what when you visit far flung mining outposts.

Finally, it is not often that games exclusively for the P.C. get a mention in this

magazine but **Beyond the Black Hole** offers a definite first. Its scenario is little different from most 3-D shoot-em-ups but what is different is that it offers a stereoscopic view of the

proceedings. Yes, you've guessed it, you have to wear a special pair of 3-D glasses while you play! All we want now is a machine that dispenses popcorn as well. **Gordon Hamilton**

GIN KING/ CRIBBAGE KING

Software Toolworks (Mindscape) -
£29.99 Disk

Gin and cribbage are two of the most popular card games. Here, at last, is a computer version that can be taken seriously.

If you want a break from the slaying of monsters and slapping of aliens then this double pack could be your answer. It contains an easy game system, tough computer opponents, even a pack of cards and a cribbage board.

Cribbage is one of the more popular card games and has often been computerised, indeed several listings for cribbage games have been included in the pages of this magazine; what makes this one different?

You can play two or four handed crib and you have seven different opponents each with their own style of playing. It also manages to cram the board, your cards and the play on the screen so you can follow exactly what's happening.

If Cribbage King is good, Gin King is a real surprise package. It is a game that doesn't immediately spring to mind. The game mechanics are simple but the play is very tricky thus combining to make it very addictive. In just three days I played 87 games! I'd call that addictive. As with Cribbage King, the game features the same computer opponents

that offer a range of different styles and strength of play; clear graphics that include full card designs; and a variety of options including duplicate play - so you can see up the same hands and watch how another player would play them.

For a beginner the program offers full instructions, hints and tips, an easy opponent to get you going, and online help from any of the other computer players including basic strategy and specific help such as which cards to discard and why.

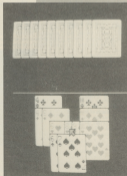
Without a doubt these are the definitive Crib and Gin programs and a must for all enthusiasts and addicts.

Tony Hetherington

INFO

Gameplay: 80%
Graphics: 68%
Sound: N/A
Lastibility: 70%
Overall:

71%



WAYNE GRETZKY HOCKEY

Bothada Software

Calling all sports fans its time to strap on your skates and grab your stick for this incredible ice hockey game.

The game carries the name of the ace and only Wayne Gretzky who is the big name in professional Ice Hockey. He's been voted the most valuable player in the National Hockey League an amazing eight times. Unfortunately, he's all but unknown on this side of the pond so the game will have to stand on its own.

For one or two players, the game simulates a single hockey match of between 5 and 20 minutes per period and combines both the action and strategy elements of the game. On the ice its action all the way as a top down view gives you a birds eye view of the game. You control just one of the players on the ice and its up to you to get into free positions as your team-mates can pass the puck to you for a shot

at goal. In defense you can attempt to intercept a pass, hack the puck low with your stick or grab your opponents

jersey to slow him down so that your team-mates have time to score. Naturally, this is risky as there is a chance

of a penalty for tripping or charging which may earn you two minutes in the penalty box.



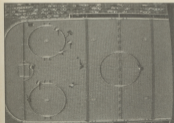
Always I always know the players were on illegal substances.



Steve: "...And the invisible striker scores a splendid goal!"



Steve: What's he drinking? (Legal substances no doubt)



Steve: "...And the action is so frantic the crowd has awoken."

You can play the game at four different levels from high school to pro, that means the game will get faster, the players stronger and tougher. In fact, there's a chance when there's a penalty that a fight might start which is displayed for all the crowd to see on the above risk TV system. This system is also used by the referees to call positions and for goal celebrations.

The action is only part of the game as good coaching or strategy can win a game. In this part of the game you must decide when to swap the team, or line, on so for one of two substitute lines with different fitness levels and skills. You can also call one of five plays to send your team up the loo in a set formation or decide whether to attack or defend when you're short of a player due to a penalty.

Add to that lot, full player and team stats, sudden death overtime and slow motion action replay and you have a cracking hockey game. The only drawback that I can see is that there isn't a league to play in although, I suppose, you could make up your own.

Tony Hollingson

INFO

Gameplay: 80%
 Graphics: 70%
 Sonics: 55%
 Lastability: 50%
 Overall:

64%

This and other Nintendo Softworks games are imported into the UK by Active Sale and Marketing.

SCAPEGHOST

Is it a ghost story? Is it a detective story? Gordon Hamlett takes on the part of Inspector!

Level 9 Adventures, 19.95 Amiga.
14.95 C64 cassette and disk

You cannot remember how it was that you came to be in a funeral, nor whose it is. But when you crack a look at the name on the card on the wreath you get the shock of your life. Although in these particular circumstances, that phrase can hardly be said to be apt. The funeral is your own!

You are, or rather were Alan Chance, an undercover policeman hot on the trail of a gang of drug smugglers. Someone or something went wrong though and the gang was tipped off. Only a chance encounter stopped your assistant from being swiftly dispatched but she has now been taken prisoner. What really beats though, is that your co-colleagues at the funeral are blaming you for what happened. Can you clear your name in only three nights and also bring the criminals to justice? And all this when you are only a ghost!

As night falls, so you start to encounter some of your kindred spirits. The late politician soon befriends you and offers to show you round. The other ghosts would help you too but they have problems of their own; the colonel is worried about the vandals in the graveyard, a 'happily' married couple are hickering about who owns the wreath and so on.

As well as helping them, you have to learn about and practice your new ghostly skills - levitating objects, walking through walls etc. One of the problems is that you cannot carry very much in your ethereal state and so the manipulation of objects

is not as straightforward as in other adventures. When you are struggling to hold on to a lead, what hope is there that you can open more coffins? Strong light causes you to weaken rapidly and as you progress in the game, so you encounter other typical undead problems such as how to get past raving wats.

The game comes in three parts, each getting progressively harder. You only have a certain amount of time to accomplish your tasks as you have to be back in your new home before dawn. The game features Level 9's excellent parser and certainly, I had no difficulty with the vocabulary. The puzzles are excellent and add very nicely to the atmosphere.

The story is wonderfully original and I think that this must be the best Level 9 game for a long time. As it is to be their last adventure before trying their hand at something new, they have certainly managed to go out on a high note. Highly recommended.

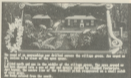
INFO

Gameplay: 88%
Graphics: 85%
Storyline: 92%
Lustability: 86%
Overall:

88%



Above: This is a great situation



Above: I'm just dying to meet you.



Above: Smile, you're an Candid Caswell!



Above: This must be Abbey Road.

TREBLE

Champions



STUNNINGLY REALISTIC
Football Strategy Game

CRICKET

M A S T E R



SUPERB STRATEGY GAME

TREBLE

Champions

A STUNNINGLY REALISTIC STRATEGY GAME

Can YOU Win the League Championship, The FA Cup and the League Cup?

An Amazing range of Realistic Features and Stunning Gameplay options to create all the Thrills, Drama and Excitement of Football Management in your computer's Football Glory and THE TREBLE.

With the choice of 2 Skill Levels and the Option to Start in any of the 5 Divisions, TREBLE CHAMPIONS offers a Real Challenge to all Football Strategy fans from the Beginner to the Expert.

Treble Champions is possibly the most complete football strategy game to date... It is large, complex and, most importantly, addictive! OVER 1.8M+ Your Computers

CRICKET

M A S T E R

A SUPERB STRATEGY GAME

All the Action and Excitement of one day International Cricket is captured in this Amazingly Realistic Strategy Game.

As TEAM CAPTAIN you will be responsible for Team Selection and your tactics Batting and Bowling Tactics, which you can vary from over to over to suit your Match Tactics and the Weather, Wicket and Ground conditions.

With a Super Range of Features, Options and Outstanding Gameplay, CRICKET MASTER lets you make the Tactical Decisions that will determine the outcome of each game.

Can YOU succeed in First Class Cricket and Captain your side to Victory against the World's Top Teams?



TREBLE CHAMPIONS
Management & Tactical Strategy



TREBLE CHAMPIONS - The Team
Stats & List View



TREBLE CHAMPIONS and
Realistic League Football
5 x 5 Divisions



CRICKET MASTER and
Strategy



CRICKET MASTER and
Realistic Strategy



CRICKET MASTER and
Realistic Strategy

Team Stats Page £2.95

Competition Page £2.95

Annual Page £9.95

Supporter Page £2.95

Team Stats Page £2.95

Competition Page £9.95

Annual Disc £2.95 - Strategy and Team Selection Coaching Page £29.95

Annual Page £29.95 - Annual Disc £29.95

CHALLENGE

SOFTWARE

NOW YOU'RE THINKING

Challenge Software, 37 Westmoor Road, Enfield, Middlesex EN3 7LF

TRADE ENQUIRIES WELCOME ON 01 443 1936

LIKE A VIRGIN FOR XMAS?

Mastertronic has never been a respecter of apple carts and, in keeping with its reputation for smashing budget prices, the PC Show saw yet another pile of pippins come tumbling down. At \$4.99, the best of the aptly named 86 *Blitz* games for the Amiga and PC least indistinguishable from some products costing four times the price. The first three games on this label are *Speedboat Assassins*, *Roadwar* and *T-Bird*, with a future release schedule which includes *Archie's*

Little Computer People and *Virgin's* *Serenity* on the Amiga plus English Software's *Knight Games* on the PC.

Despite its watery setting, *Speedboat Assassins* is a 'roadster' game which sets on the likes of *F1* and *arc-ah* jobs, *Forgi*. The roadster element means steering a highly responsive and nippy little speedboat, weaving the gauntlet along a narrow channel lined by some wicked-looking mines - but success here leads on to pitched battles later. A better name for the game

PREVIEW

BLITZ
MASTERTRONIC



Blitz: The Blitz boys, Bob, Bob and Bob.



Blitz: Speedboat Assassins.

would be *Speedboat Saboteur*, as the fatal screens lead on to higher levels of technological carnage.

How such a heavily armed speedboat can maintain its high velocity attack, or even stay afloat, remains a mystery. Barring accidents, it manages to defy the *Laws of Physics* as it blasts enemy boats into driftwood,

mangles telecommunication towers and even manages in to swindle a few banknotes.

Sometimes its amazing how real events can mirror a battle like this. When *Virgin Games* concluded their take over of the *Mastertronic* stable, shortly after the 1988 PC Show, it was rather like *Captain Jack*

swallowing Moby Dick whole. Not that Virgin didn't have a good reputation, but their games organisation was hardly on the same scale as mastertronic's empire which encompassed its range of budget labels, **Melbourne House**, a (third) new deal to market the Sega games system, and a flirtation with the video market.

Today Frank Herman, the man who loomed large in the company's creation of the budget market, still champions Mastertronic's cause, assisted by his old mate Alan Sharam. Now, with their abilities combined with Virgin Games' bums, Nick Alexander, Virgin Mastertronic has a new vitality.

Virgin Games hadn't really done very much since **Dan Dare** but it blossomed earlier this year with the brilliant **Silverwren** and the highly successful **Double Dragon**. More fruits are now waiting to appear in time for the Christmas consumers and **Double Dragon II** is spearheading the attack.

At the end of **Double Dragon**, Billy and Jimmy Lee made Marlon a free woman again, but her captives, the Black Warriors were not totally eliminated. One member escaped and she, with her new Tong, have dispatched Marlon to that great pagoda in the sky. Billy and Jimmy are a bit perked off and have extra revings and will be out for vengeance in November. Eight bit or 16 bit, the choice is yours.

Tate's **Ninja Warriors** is another Ninja binger currently in the Virgin Mastertronic pipeline and due for release in December. Rebel leader, Mare, has built two Ninja robots to defeat the world's latest dictator, Bangler. These Ninja Warriors are under your control as they make bangler's criminal army see stars (little, pointed metal ones). Can I save the world - sure I can.

Continental Circus has nothing to do with jugglers but, from what I saw at the

Show, you do need a lot of balls to get through this roadrace. As more games go it has little to lead me to recommend it over the herds of games of this genre. As good as some, better than many, it will have a hard time battling against Donark's excellent **Hard Driving** or the reputation providing the launch of US Gold's **Outrun II**.

By far the biggest news from the Virgin Mastertronic stand at the Show was their Christmas Coin-op Collection Competition. With prizes totalling £30,000, it's the biggest gamble that the company has ever taken - either before or after the take over.

The competition is based around Virgin Games titles: **Silverwren**, **Gemini Wing**, **Nisobu**, **Continental Circus**, **Double Dragon II** and **Ninja Warriors**. To qualify, tokens must be collected from any three of these games before January 1990. Submitting the game and answering a 'simple' question puts an entry in the grand draw and the five winners will each receive £1,000 worth of their chosen software (not necessarily Virgin Mastertronic stock), or £300 worth of software plus an Amiga for the intelligent or an Atari ST for those who don't recognise a bargain when they see one - by the way, I retired one frayed leg at the show awarded 'HT' between the S and T of the Atari logo. Although we don't condone such disgraceful behaviour - good on you, sport. And to show so ill intent against Atari, what do you call **Silverwren** on the ST? Virgin on the ridiculous.

The rest of the prize money for the competition comprises 10 second prizes of £500 of software and £250 worth for each of the 20 third prize winners.

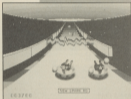
Elsewhere in Virgin's Venice Yard HQ, Melbourne House and Leisure Genies are still chugging away. Looking like **Double Dragon** on dope. Cyst,

sorry, **Fit II** is about to appear on Mastertronic at a realistic price of £2.99, while Melbourne House pursues its current trend for fantasy role playing and graphic adventures with **Demon's Tears** and **Orlando** plus the conclusion to the bloody grim **Lord of the Rings** trilogy at Frodo and Sam plot on towards the War in Middle Earth.

Leisure Genies sounds much more hopeful with their trilogy, **Monopoly**, **Scrabble** and **Cluedo** for a combined price of £19.95

(£16 only). There is also the promise that my favourite board game **Risk!** will soon be appearing. Ah! World domination isn't that what life's about?

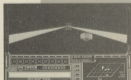
Incidentally, you may have heard that 1990 is the latest nominee for the Year of the Games Machine - whatever happened to them in 1989? Consequently, the Virgin Mastertronic stockrooms are frantically being loaded with Sega games which sounds like the storm before the calm to me.



Above: Roadwar



Above: Ninja Warriors



Above: Kelly II

OPERATION THUNDERBOLT

Ocean - £9.99

The sequel to last year's Christmas number one leads Ocean's challenge for the top.

Operation Thunderbolt is the sequel to the chart topping Operation Wolf. It is already a big hit in the arcade and aims to repeat the success of its predecessor, thus claiming the lucrative Christmas number one spot for Ocean for the second time in a row.

When the reports first started coming in it was clear that flight number 182 from Paris to Boston had been hijacked. It had changed course for somewhere in Africa and information received reveals that the plane has landed in hostile territory and the terrorists have issued their demands.

Wary from your last Operation Wolf mission you are persuaded to launch a rescue mission, only this

time you don't have to go alone as you can take one of your buddies with you. Which is just as well as this is going to be a tough mission behind enemy lines. So the game actually consists of a series of small missions or stages that lead to the final battle onboard flight 182.

Your first task is to find out where the plane has landed and you need some information. To get this you must battle your way through an array of enemy troops (that fire guns and hurl grenades) and knives at you until you can meet up with your contact who will direct you to mission one - which is an attempt to attack and seize the enemy's supply and ammo dump.

Eventually, you will

board the plane and engage in a pitch battle with the terrorists who are the main as cover. Your only hope is to fight your way to the flight deck and hope the pilot survives the battle, so he can fly you and the hostages to safety.

Operation Thunderbolt has many things in common with its prequel but also boasts a whole new range of action features. Scenes and missions alternate between Op Wolf style sideways scrolling screens and the new 3D view where you fight as you move into the screen. The troops, tanks, paratroopers and helicopters of Op Wolf are back in action, but they are also joined by jet fighters and new weapons including rocket launchers

and mines) to dodge and destroy. The player still have a limited number of machine gun cartridges and grenades that can be topped up by collecting supplies, and you can also collect new equipment such as a laser sight for increased accuracy and a bullet proof vest to save your dwindling lives.

The biggest single difference to the game is the addition of a second player that not only doubles your firepower against the enemy but also provides incredible rivalry as that is how percentages are compared and supplies and equipment are vied for.

Look out for the one in Operation Thunderbolt is going to be a massive hit. Tony Hatherington



Above and right: Make 'em, make 'em, make 'em, make 'em, make 'em, make 'em



INFO

Gameplay: 85%
Graphics: 88%
Sound: 65%
Lastibility: 85%
Overall:

81%

Don't forget an impressive line up for this Christmas, including *Berzerk*, *Cobra* and the remarkable *Unsublatable*.

AMIGA

MICRO Music

ATARI
ST

IBM PC

APPLE
MAC

EXCLUSIVE!
ELECTRONICA '89
NEW

**WE MEET A GUY
CALLED GERALD!**

**Get Musical
with the
Archimedes**

**High Note
and Armadeus
Reviewed**

ACORN

COMMODORE
64

AMSTRAD
CPC

ZX
SPECTRUM

CLASH OF THE TITANS!

Cubase and Virtuoso Head-to-head Review

ISSN 0961-0476



THE TIME HAS COME...

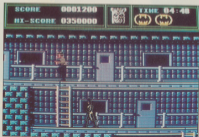
Britain's First Music Magazine for the Computer User!
Featuring Reviews on Hardware & Software across all formats — Micro Music is
the magazine the Computer Musician has been waiting for.
Available 6th September from all good newsagents.

OCEAN - £9.99 / £12.99 disk

The smash hit film of the Summer has exploded onto the computer screen. This time you star in **Batman - The Movie.**



BATMAN THE MOVIE



By day multi-millionaire Bruce Wayne is the mild-mannered head of the Wayne Foundation but at night, when evil stalks the streets of Gotham City, he becomes the sinister masked vigilante known only as Batman.

Crossing again crime from the rooftops of the sickened city, Batman's main aim is to eliminate Gus Grissom's criminal empire and in particular Jack Napier, his psychotic second in command who, following an accident in his own chemical factory, becomes twisted both mentally and physically, and transforms into the Joker. Your battle with the Joker takes you through five stages of the game that follow scenes from the hit movie.

The Axis chemical plant is the setting for the first stage, in which you must negotiate the network of ladders and ramps with help from your Batrope, and fight the Joker's henchmen with your Batarang. It is on the final scene of this level where Jack Napier falls into a vat of chemicals and becomes the Joker.

In some two you have just rescued Willy Vale from the clutches of the Joker and are making good your escape. However, this isn't going to be easy as you not only have to avoid the Joker's men, but also the police cars and road blocks. Drive fast, and follow the directions highlighted by the **Batdirectional** computer.

Left: You too can dress as Bernard Manning and right: come as Batman.



Above: I wonder if the Batmobile has a sticker in the rear window that says "my other car's a Honda?"

Meanwhile, back at the Batcave, the rapid responder has just 40 seconds to discover which three household



Above: Scoop the Press!

items contain the compounds that combine to form the Joker's deadly Smilex, which kills on contact. Level four takes you back onto the streets of Gotham City only this time in the Batwing. The Joker has massive balloons full of Smilex gas that he is about to release on unsuspecting crowds. Your task is to use the Batwing to cut the ropes that secure these balloons so they float off harmlessly. However, one wrong move and the balloons could burst and hundreds could die.

The final duel between Batman and the Joker comes at the top of Gotham City cathedral. This is similar to the first encounter in level one except our hero must also watch out for crumbling floors and rapid rats.

With the film's success behind it, the game cannot fail. However, under the hype, costume and drama it is simply a shoot-em-up with two platform game elements and, in level 3, a Mastermind.

Tony Hetherington

INFO

Gameplay: 58%

Graphics: 65%

Sound: 50%

Lastability: 55%

Overall:

56%



Above: Batman's got a ladder in his sights.



Above: If a cow popped on his head, he'd be Polman!

GREAT NEWS

COMMODORE

NEW

FOR THE C64, C128 USERS

UTILITIES

USE GRAPHIC
CAPABILITY
TEXT-CRACKER
MOVIE TRAILER
COPYRIGHT

DEMOS

THE
C64
C128

STUNNING
PROGRAMS
HOW TO
USE
THE
C64
C128
TO
IMPROVE
YOUR
C64
C128

COMMODORE
Disk User
A COMPUTER MAGAZINE

ON POINT

DEMO

DISK SCANNER

BOOKS

RAM

MARKING

**SOFTWARE WORTH
YOUR LEAST**

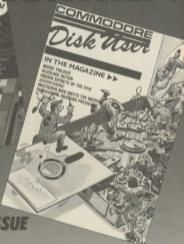
£50

NOW ONLY!

COMMODORE
Disk User

IN THE MAGAZINE

VIDEO CHALLENGE
ARCADIA ACTION
ROCKIN' BUNNIES IN THE SKIN
SOUNDTRACK
MUSICIANS AND METS THE MIGHTY
MUSICIANS CHALLENGE PREVIEW



**NOVEMBER ISSUE
ON SALE
OCTOBER 20TH**

COMMODORE DISK USER is what you
have been waiting for — take out
a subscription TODAY!

COMMODORE DISK USER IS A LOT MORE THAN JUST ANOTHER COMPUTER MAGAZINE. EVERY ISSUE CARRIES A DISKETTE CONTAINING MORE THAN £50 WORTH OF SOFTWARE RANGING FROM SERIOUS PROGRAMMING UTILITIES TO ARCADE GAMES. THERE ARE PLENTY OF COMMODORE MAGAZINES ON THE MARKET, BUT WE BELIEVE THAT THIS IS THE FIRST TO CATER FOR DISK USERS OF ALL AGES AND TASTES.

Get in on the action

STORM ACROSS EUROPE



Through research you can increase the effectiveness of land units, including tanks, troops, supply trucks and paratroopers, naval forces (ie. submarines), fleets, convoys and landing craft, and the fighters and bombers of the air force. You can also develop new weapons, such as missiles and nuclear weapons.

In a turn you can move your troops around your empire, send your subs to raid enemy shipping, launch an amphibious invasion, try and break through an enemy

SSI - £24.99 Disk

50 years ago Hitler unleashed a storm of destruction across Europe. Now you can simulate the entire war in a few hours.

September 1939, Hitler launched his blitzkrieg invasion of Poland that triggered the Second World War. Now up to three players can recreate the battles and problems of that era in one of the most playable SSI wargames. In a solo game you control the forces of the Reich against Allied and Russian forces controlled by computers, which can be replaced by humans if they are available.

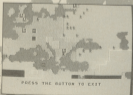
As commander in chief you must not only organize your troops in battle, but also manage your limited resources of population, raw materials, and industry to both research new weapons and produce the land, sea and air forces that will be required to win the war. These resources are gained by conquering territories during the four three-month turns in a year and assigned in Spring to research projects and production.

position, and send your bombers (complete with fighter escort) to bomb either enemy aircraft or production.

The program contains several scenarios and variables that can be set to create a variety of challenges, not only providing a strategic challenge but also an insight into the war - such as how vulnerable Britain was to invasion in 1942 and the horrendous losses inflicted on both sides when Germany attacked Russia.

The game manages to provide historical accuracy in a playable form which should appeal to more than the hardened band of box wargamers. For example, instead of having to occupy every province of a country to conquer it you only need to occupy key areas such as Paris and Marseilles for France and only Warsaw to defeat Poland.

Tony Hefferington



Hitler's Panzer army rolls across the borders of Poland in Spring, 1939

YOUR COMMODORE

h you
iveness
and a g
tracks
and fuel
ports,
salt,
and
fence.
y new
tracks

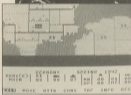
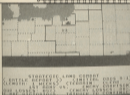
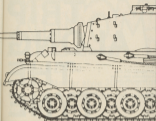
there
your
life, so
much
a, try
many

rm

near
with
with
or

also
milita-
rized
not
hope
right
are
to
the
led
way

to
they
with
an
co-
le,
to
ry
ed
as
or
to



Above left: And as they came across the hills, beating banners, singing, and waving weapons. Their breath stank, and their foul language resounded through the valleys. It was the coming of the England supporters. It was May.

Left: Let's take that small island over there, 'England' post boy.

INFO

Gameplay: 95%
 Graphics: 65%
 Sonics: N/A
 Lastability: 95%
 Overall:
85%

Left: The troops are under fire, which is better than being on foot.

SSI specializes in computer wargames and roleplaying games, including the AD&D range.

PREVIEW



Left: Beverly Hills Cop. Considerably less messy than Beverly Hills Cop.



TRIP ALONG THE TYNE

It is not often that a company can claim to offer something for everybody with just four titles, but that is just what Tynesoft are attempting to do with their forthcoming releases.



Left: 1st Person Pinball. A game with more balls than the Amsterdam Museum of Sex.

Their biggest title and one which is hopefully going to be out in time for Christmas is **Beverly Hills Cop**, based on the Eddie Murphy film.

The game is split into five different sections. Before Axel can start to solve the crime, he must first follow his colleague to the arm factory where the robbery is taking place. If he gets through the early morning traffic in one piece, he then has to dispose of the gang members as best he can. Naturally he can't use his

gun with as much explosives lying around.

A high speed car chase ensues as you try to find the mansion where the trucks are heading. This is the headquarters of Mr. Big and you have to find a route through the mass of hedges in his garden before forcing your way into the house and the final showdown. All you have to do then is get out...

Roller Coaster Rambler is a shoot-'em-up with a difference. Not only do you get a high speed trip round

one of the meanest big dippers around, but you must also blast away the moving targets before you are fireably ejected from your seat.

Role playing fans can look forward to **Elvira - Mistress of the Dark** on the **Flowerpot** label. This is a totally lean and mean driving game featuring some superb 3-D graphics.

As your character progresses, so you must develop your various skills; strength, dexterity and so on. Combat is fully animated and you are given various options depending on whether you are on the offensive or defensive. It is also quite important to use the right weapons at the right time. You might be able to get past the screaming falcon if you have the bow and arrow and if you have enough skill to be able to use it properly.

There are plenty of puzzles to be solved and the promise is that they are going to be tough. It will not be simply a case of using the right object in the right place. Even knowing exactly what he is doing, the author reckons that it will take him about seven hours to complete the game or what hope is there for an lesser mortals.

Finally, a game scheduled for release early next year is **1st Person Pinball**, a revision of the arcade game. This game is unusual in so much as you can switch from the usual top-down 2-D view of the table to a 3-D perspective of the game as seen from the ball's point of view. As a dedicated pinball freak, there is a serious lack of decent games on the Amiga. Hopefully, **1st Person Pinball** should be just what the doctor ordered.

Gordon Haxton

XENOMORPH

Pandora - £24.99

Dungeon Master style 3D adventuring takes off into space with *Interceptor's* Xenomorph.

It was supposed to be a routine supply mission to Cygnus 41 when suddenly, everything went very wrong. Finally, you managed to crash your ship on landing and now have to find materials to get it fixed and, secondly, the colonists seem to have disappeared which isn't all that surprising as the base is now overrun by mutating aliens.

The basic interface is represented as screens as a series of scrolling 3D rooms and corridors which forms the main part of the screen display. Around this are five smaller displays that include movement icons, what you are holding in each hand, your backpack and a personal display showing your current state of health and a picture of you that you can customise using the program's DNA machine so that you on screen persona can match yourself, a hero or favourite. Your Commodore reviewer. One particularly impressive feature of the game is that when you are getting something out of your backpack that screen fills the main screen area and the player status screen becomes a mini window of the 3D view that still scrolls and displays all monsters and objects so you can carry on with the action.

Apart from the variety of background displays of

which the enclosed air ducts are my favourite, the range of weapons featuring laser rifles, stun pistols, grenades and alarm seeking robotminers and the objects such as a proximity detector that you can find, the main appeal of the game is its range of aliens and the way they change and mutate. One example is best described in its adult form as an insected lobster but begins as a harmless egg which can be easily fried with a single blast of a laser gun. Once it hatches it turns into a worm like larva that swarms away to hide from you, where it wrigs itself into a crevice and metamorphoses into the insected lobster that comes looking for you.

Not all creatures are that complex as the game also features a rather unpleasant green blob that when blasted turns into two green blobs. In this game you have to learn which weapons to use against which creature and it isn't always easy to do this when you're fleeing from a horde of monsters.

Tony Hedderington

Pandora is part of the *Interceptor* group of computer games which also includes the *Players* budget range.



Right: "Clay, who's attached to the ceiling?"



Above: Give the guy a hand.



Above: We must've gone to a second hand shop!

YOUR
COMMODORE





YOUR PROGRAMMER

CONTENTS

32 Macro Assembler

A 3-pass fully implemented Macro Assembler for the C64.

48 Memory Restorer

Get an Expert Cartridge that reads a boot? Try this routine and if you're not satisfied, phone Victor Kiam.

51 Loader Builder

Create a basic loader out of Machine Code data statements, if that is what you desire.

55 Screen Saver

Give your monitor a rest, send it to Barbados. Either that or use this Family HIRE routine.

How to use the pull-out...

Remove from magazine and cut spine. Punch holes on edge and insert in a ring binder for easy storage and long-term protection. Alternatively you could feed them to the dog, but I favour the former.

MACRO ASSEMBLER

Be the master of your machine code program with this extensive 3 pass macro assembler

By I. Goffe

Many assembler packages have been available for the Commodore 64 since the arrival of the machine, but sadly many such pieces of software are scarce in the shop today. I have noticed a steady revival of assemblers, thanks largely to magazine such as this, it is especially true of the 6510+ assembler in the Mag. Just issue of its sister magazine *Commodore Disk User*, which offers many more facilities than its commercial counterparts. My Macro assembler is intended to be yet another valuable tool to the machine code programmer, with the added bonus of macros, and conditional assembly; this allows much more structure to be implemented into your own machine code programs.

Presented here is a sophisticated 3-pass 6502/6510 Macro Assembler that supports many advanced features, including:

- Full macro assembly with parameter passing.
- Linkable source files.
- Including directly from disk.
- Symbol table/buffer space memory config.
- Conditional assembly (IF, THEN, ELSE).
- Symbol table cross-referencing.
- Selective assembly output.
- Full DOS support.
- Extendable capabilities.

The assembler can be configured to work with either disk, or cassette filing.

The Assembler - Getting Started

The assembler code runs from 58200-5A000. To initialize the assembler from a cold start type SYS 28100, this re-defines the RESTORE key to allow you to enter the assembler command mode with a single stroke key press. If you should change the RESTORE key vector use SYS 28100, which will re-initialise once more. The use of a cold start also clears the current symbol, macro directory, and macro library areas.

Once a cold start has been issued as above, the program title will be displayed, at this point as Basic wedge was to be used to enter the assembler command mode, but I wanted the system to be able to run alongside an extended Basic if there are no memory conflicts. I spent for the idea of being able to call up the main assembler command mode by pressing a single key which emulates the Basic command 'SYS 28210' which calls up the assembler command mode via a warm start.

To summarise, pressing RESTORE while in the basic editor will automatically do the Basic command 'SYS 28210' to jump into the assembler via a warm start.

Extra Note on Compatibility with Action Replay

Some ROM routines which are called inside the assembler seem to corrupt when the assembler is first run, to get around this problem follows these steps...

1. Type SYS 64710 to jump into a normal reset

2. Press the reset button on the back of the cartridge to exit back to the 'FASTLOAD' interpreter which will allow the assembler to operate. In this case all FASTLOAD/Warp loading can be used in conjunction with the assembler, making source file I/O extremely fast and effective.

The RESTORE key does not work correctly with 'FASTLOAD' installed, so a manual 'SYS 28210' needed to be typed to jump into the assembler command mode.

Entering Source Files

The source files are maintained in the standard Basic editor, so you will not need the assembler present for actually entering the source. As in Basic only lines 0-63999 are valid.

The source must follow a set format, however, true field-tabulation is not required for LABEL, OP-CODE, OPERAND but some form of correct syntax needs to be followed. In general the syntax would be one of:

```
LABEL OP-CODE OPERAND;
LABEL;
OP-CODE;
OP-CODE OPERAND;
```

Note that if a label is not followed by an opcode then a comment (;) is expected. A comment can be used in any available field. A space is needed in between the 'fields', and where applicable quotes must be set out in the text correctly.

- ```
qqr
10 LDA 00! space between LDA
and 00
20 LABEL; a comment is needed if
no following opcode
30 ENCLUDE "name"! opening and
closing quotes needed.
```



When an opcode of the form **ROL A, A**, **ASL A** is encountered it should be entered with no space as **ROLA** to avoid the confusion between:

- ROLA (Rotate left accumulator)
- and
- ROL ALABEL (Label beginning with 'A')

**Pseudo-Opcodes (Assembler Directives)**

Pseudo-opcodes can be used in the

assembler to enable you to direct or command the assembler to carry out various functions at assembly time only.

A complete summary of pseudo-codes follows with their syntax, and use.

**PSEUDO-CODE summary**

(Take x = valid expression)

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DIRECTIVE</b>             | <b>USE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>BYT x, x1, x2...</b>      | Stores x and the following 8-bit numbers in memory, any valid expression is allowed, along with a string of characters if they are given in quotes. eg BYT \$C0, \$E84, "text", \$0000100                                                                                                                                                                                                                                                                                                                                                                   |
| <b>DISINCLUDE "filename"</b> | Includes a source file directly from disk, using up to available memory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>ELSE</b>                  | Toggles the conditional flag, on a new assembly the condition is set to true - assembly turned on.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>ENDIF</b>                 | Turns off any condition to continue assembly as normal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>IF x</b>                  | Sets condition true if x is nonzero, if x is zero then subsequent assembly will be turned off until another conditional statement proves otherwise. States object code at address x, but takes referents for absolute values from the origin (*)                                                                                                                                                                                                                                                                                                            |
| <b>LOAD x</b>                | Links next source file to continue assembly - see the section on this function                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>LINK "filename"</b>       | Links next source file to continue assembly - see the section on this function                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>OUT x</b>                 | Sends assembly - text output to device x, default is 0 (no output), 1 = screen, 4 = serial printer                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>RELINK "filename"</b>     | Used to cycle to the first file in linked assembly for the next pass. In the last file in linked assembly should end with RELINK "name", where name is the first file in the linking.                                                                                                                                                                                                                                                                                                                                                                       |
| <b>RUN x</b>                 | Sets the execution address to x - the address that the editors 'G' command will jump to                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>RES x</b>                 | Reserves x bytes of memory, in essence it adds x bytes to the program counter, and is used to define storage space                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>SYM "filename"</b>        | Appends a previously saved symbol table into the current symbol table being produced by the source file. This allows symbol cross-referencing between files. Note that the symbol table limit is not checked for as a complete block/word is used for speed, so be careful when using this option. Any labels previously defined before a symbol table is loaded are not checked for re-defined errors, in this case the first reference in the table is used. Any subsequent re-defined errors are treated when defining labels outside of this directive. |
| <b>TEXT "string of text"</b> | Stores a single string of ASCII characters in memory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>WORD x1, x2, x3...</b>    | Stores x in memory as a 16 bit number in hi/lo byte form                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

Note that the origin of the object code is defined by the \* symbol, eg 10 \*\$C000 will define the origin as \$9152 decimal. More than one origin can be stated in the source, but only the last one can be used in the direct object save command in the editor.

**The 3 Passes**

A three pass assembler has been incorporated in order for the assembler to be more versatile, this is especially true in the case of forward referencing, eg in equate lines. To show this a small source file to pass values from label to label is shown. Ignoring the **INCLUDE ASSEMBLER**, and the \$310+ assembler cannot handle the following example totally correct, but this macro assembler can - try it for yourself!

```

GUT 3 1 no operand in the
$310+ assembler *$C000

CODE BANK LDA LABEL1
CODE BA LABEL1 NOP
CODE BA NOP
CODE BANK LDA LABEL1
 LABEL1+10-LABEL1
 LABEL1+LABEL1-49152

```

As it can be seen LABEL1 is \$BC and the object code created gives this result, but try it on the other 3 pass assemblers mentioned above!

**The Editor command Mode and Set**

When the assembler is entered via warm start by either pressing **RES-TORKE** after a cold start, or a direct command of **SY\$ 28215**, you will be presented with a prompt (:) - this is the editor command mode, and is where you type in the editor commands listed in the table below. These allow you to operate various features of the assembler eg) assembling and maintaining source files. A complete summary of the editor commands available, and general syntax follows. Each command is called up by entering a single stroke command letter. Any arguments used in the commands are separated from the command letter by a single space. Each argument thereafter is separated by a comma.

## Editor Commands Summary

A  
SYNTAX/ARGUMENTS n/a

Will assemble the source file in memory. During assembly processing RUN/STOP will abort to the command level. Upon aborting the line at which assembly was aborted will be displayed, and if applicable the file which it was reading at the time, this is also true for any error reports during assembly time.

If any files are read into the assembler during assembly including, and reading, macro definitions then the disk status will be displayed to signify that data is being read in from disk instead of memory.

This is shown on screen by two sprites in the shape of disks, the left-most one will change colour only on the reading of a new file, so if more than one file is to be included in the source for example, then the first file

"filename"

will show as a white sprite (colour 1), the second file when being read will show as a red sprite, etc, this is the same as all sprites in the colours are automatically reset.

The right-most disk-sprite will flash to show that data is being read in externally.

B  
SYNTAX/ARGUMENTS n/a

This command exits back to Basic, or from the return destination if another program calls the assembler.

D  
SYNTAX/ARGUMENTS n/a

Causes a listing to screen of the disk directory, without corrupting the basic programs, as is the case of the LOAD "F,S" command from Basic.

E  
SYNTAX/ARGUMENTS Any valid expression

Following this command you can evaluate any expression that can be used inside the assembler, this includes all the valid operators, and pre-defined symbols from the current symbol table.

F  
SYNTAX/ARGUMENTS string to find (no quotes needed)

Finds any occurrence of the given string in the current edited source file. The strings that are found will be shown by their relevant line numbers. Pressing RUN/STOP at any time aborts from this mode.

G  
SYNTAX/ARGUMENTS Pre-defined RUN value from source

Goes to the address specified by the RUN directive. A new assembly resets to a no-run mode, only a new RUN value which is given whilst assembly takes place will allow this command to operate.

H  
SYNTAX/ARGUMENTS n/a

This command displays a summary of this set of command-letters.

I  
SYNTAX/ARGUMENTS "filename"

Saves the last object code with start, and end addresses taken from the origin (?) - this only applies to the last origin used, if there has been more than one value given see \*stack.

J  
SYNTAX/ARGUMENTS "filename"

As the I command, but saves from the addresses taken from the LOAD directive.

L  
SYNTAX/ARGUMENTS (line number (no value = start of file))

Lists to screen the current source file, from the line specified.

M  
SYNTAX/ARGUMENTS n/a

Lists the present macro library. Once this command is issued a directory of the macro-definitions currently in the macro library is given on filename at a time.

After each name is displayed the keyboard is polled for a key press, pressing 'L' at this point lists out the

macro in its expanded form, whilst any other key brings up the next file in the macro directory. When all of the macro directory has been displayed the number of spare bytes in the macro library is given, note that such spare masters as comment lines are deleted in order to compact the data given to the macro library as much as possible.

N  
SYNTAX/ARGUMENTS

Appends a source file, once loaded the file is automatically reassembled.

O  
SYNTAX/ARGUMENTS n/a

OLD - brings back a previously NEW'd program, or one crashed after a reset.

Q  
SYNTAX/ARGUMENTS "filename"

Saves out a copy of the current symbol table for use with the SYM directive to cross-reference between files. It is also useful if a debugger was to be written for the system to take advantage of symbolic output.

R  
SYNTAX/ARGUMENTS start line, stop

Remembers a file with the given start, and line stop values.

S  
SYNTAX/ARGUMENTS "filename"

Lists a source file directly from disk to the screen, no memory is used, and therefore the current source file is not ever-erased.

U  
SYNTAX/ARGUMENTS start line, stop

Jumps into Basic, with an auto-line numbering entry enabled. The start line, and stop are given, and after each press of RETURN the next line for editing is displayed, entering a null-line exits from the AUTO mode. Jumping back via a warm start will bring you back to the command mode.

X  
SYNTAX/ARGUMENTS n/a

Saves a block of memory, user with no parameters, as you will be prompted for the address range and Hexname. Note this routine ignores any checks on undefined labels if used.

## Y

**SYNTAX (ARGUMENTS) n/a**

This command lists the current symbol table, with values given as hexadecimal values. Pressing RUN/STOP will abort.

To send this output to a different device other than the screen use the added configure program.

## Z

**SYNTAX (ARGUMENTS) n/a**

All the features of the 1240 DOS have been incorporated into the assembler. Once in this mode you will see the prompt 'DOS' to let you know that you are in DOS support mode. Following this is the usual prompt, typing any normal DOS command as at this stage eg. NEW: ANYDISK, 64 to format a disk would be accepted, the error channel is automatically displayed after any command. If RETURN is pressed the error channel will be displayed and updated, pressing 'X' will exit back to the main editor.

## Labels

A label or symbol in the macro assembler can be of 2 forms, firstly it can be defined as a constant by using the '#' symbol:

```
10 RESET = 64718 ! 16 bit constant
20 ZEROPAGE = 10 ! 8 bit constant
```

It can also refer to a location in the source file to be jumped to or operated upon in some way:

```
10 LABEL ! location within the source file
20 BEQ PANEL ! branch to it
30 COUNT BYT 0 ! holds an 8 bit number
40 COUNTS WORD 0 ! define as word (16 bit)
50 LDA COUNTS ! 16 byte of COUNTS
```

Labels which have not correctly been given a value will be suffixed with an '??' in the symbol table.

## Storing Object Code

The directive LOAD is extremely useful when the address that you want to store your code at is inaccessible with the assembler present. For example if you wish to run a routine from the default screen address (8024), any data that is POKE'd to it would of course be over-written by on-screen messages before you have time to save it. You would therefore store it at a suitable area of RAM, eg. LOAD \$C000, but give the origin address as "=H24, you could then signify a relocatable load address of H24.

Note that the LOAD directive is needed AFTER the '=' is set, if the '#' is given after a LOAD then the origin will over-ride the LOAD, and store data from the base of the origin.

```
eg. # = $2000 ! Labels and jumps will take values from here
LOAD $C000 ! but code will be stored from $C000 onwards.
(Not the above order)
```

When assembly has been successfully completed the object code start and end addresses will be displayed, and if a LOAD directive has been used, then the storage address will also be shown. The execution address will also be displayed if RUN command has been used.

In the following text the 'TOP LEVEL SOURCE' file relates to the file actually in the Basic editors memory.

## Using INCLUDE and DEFINE

If including (INCLUDE) or reading in a macro definition (E) you must use the command within the TOP LEVEL SOURCE file, therefore all included files must not try to include a file from inside itself. Similarly, they should not try to define a macro definition (D), ie. INCLUDE and EMACRO-NAME directives cannot be used in a file that already been included with the INCLUDE directive itself.

If an attempt is made to do the above, then a "NESTED" error will be issued. The errors are "NESTED INCLUDE" when an include uses a "DEFINE" directive, and "NESTED INCLUDE/MACRO" when a macro definition is used within an included file.

## Extending/Larger Source Files

At sometime during writing source files you will appear to have used up all available source file memory. To get around this, two pseudo-opcodes have been used to chain or link more than one file together for continuous assembly.

LINK "Hexname" is used to chain the next file for assembly, while symbols are still retained from the previous file. HELINK "Hexname" is used to restart from the first file in the link for the next pass, there is no limit on the number of files linked, only on the symbol table space that is used up, and the "physical" address being poked to.

LINKING reads the whole file into the editor workspace completely overwriting the previously edited file. The only advantage over including directly from disk is that files can be read into the workspace much faster.

It also allows some form of compatibility with the LINK command found on Superchip's MIKRO assembler.

A more powerful command is the DINCLUDE directive which allows direct including from disk. It is another way of assembling an expanded source file by allowing more than one file to be assembled as in the LINK command. But it has the added advantage of not overwriting the source file currently in memory, this allows you to store your object code in more available memory which the included source file would have been occupying if it were read into the editors workspace as a complete edited file.

## Using Macros

### MACRO DEFINITIONS

A MACRO DEFINITION is stored as a single source file on disk, and each is loaded in separately to make up the MACRO LIBRARY. A MACRO LIBRARY is used to give details of what the current macro library holds.

Macro definitions consist of any portion of a source file that you only have to write once - as a macro definition - and a "call" to that macro will expand it to a totally relocatable part of the main source file.

Therefore if you need to keep using the instructions CLC, LDX #00, LDY #010, JSR \$FFFF to set the cursor coordinates to (0,10) it is

rather time consuming, and a waste of source file space to keep typing in the same code. Instead you could define it as a macro definition called CENTRE - to achieve this type the commands as you would a normal source file, and save the file with SAVE "CENTRE".

Each time you wish to use the given instructions instead of typing out the same code you can 'call up' or 'invoke' the macro CENTRE and the instructions LDX #80, LDY #80, SR IFFB will be generated into your source file. See the section on how to invoke the macro files, and add them to the macro library.

### Added Macro Features

A couple of features are included to make the macro definitions more meaningful. The first feature is to allow true parameter passing upon invoking a macro.

#### parameter Passing in a Macro Definition

The macro definitions can accept parameters by using the `^` character to precede a parameter number between 0 and 9.

```
eg LDA #0
 STA 0
```

in the macro definition would change 0 into the text passed by parameter 0, and 1 with parameter 1.

See the section on macro invocation for more details of how to pass parameters within macros.

### Localized Symbols

All labels within a macro definition will be read in as a local symbol, this is achieved by adding a unique 3-digit code to the symbol within the definition, e.g. the symbol LABEL1 within a macro definition will be given as ARLABEL1 on the first 'call' to the macro, ACLABEL1 the next time, etc, this is so that the symbol LABEL1 is not modified everytime a macro is invoked, and also direct references can be given to labels within individual macros.

Every reference within the macro definition to a label automatically refers to one within a particular macro (a local reference). If you wish to refer to a label outside of the current macro

definition you must signify that it is a global reference - this is achieved by prefixing the label with a full stop.

The following is the source code a macro definition:

```
REQ LOOP ! refers to the label
"LOOP" inside the current macro
definition.
JMP MAIN ! refers to the label
"MAIN" outside of the current macro
definition.
```

#### Adding a Macro Definition to the Macro Library

In order to invoke any macro it must first be stored within the macro library. A previously saved macro definition can be added to the library by prefixing the macro name with a `!` symbol.

#### !EMACRONAME

Note that there is no space between `!` and the filename. The macro definition must be given to the macro library BEFORE it is invoked.

#### Listing the Files in the Macro Library

To determine what macro definitions are present in the macro library you can view the macro directory with the use of the library you can view the macro directory with the use of the editor `!M` command.

### Invoking Macros

This is the term used to expand the macro definitions into the source file. Once a macro definition has been stored in the macro library it can be invoked in the source file by using the `!` symbol to precede the macro filename to be invoked.

```
!M filename ! adds the macro to
the macro library
!M macroname ! invokes (expands) the
macro
```

#### Parameter Passing During Macro Invocation

The macros to be expanded can be called up with parameters as discussed in the section on macro definitions.

To invoke the following macro definition:

```
!M LDA#10
 ST STA,1
```

```
Save it to disk with SAVE
"POKE.MAC".
```

The above example is to define a rather simple POKE 1,2 type of macro definition but serves its purpose. Once it is saved type NEW to clear the current source file and type in the following:

```
!M "POKE" ! sets origin
!M !POKE.MAC ! gives definition to
macro library
!M POKE.MAC 5,1280 ! pass the
poke value, address
48-BT
```

It can be seen that parameter 0 is 5 (the source will now contain LDA #5), and parameter 1 is 51280 (source contains STA 51280).

A parameter can take any form whatsoever, specifying various operands, or any valid expression. Each parameter is separated by a comma - use if you are passing text, as in "HELLO, MY NAME IS" the comma would tell the assembler that it is the end of that parameter so be careful!

The number of parameters allowed to a particular macro is 10 (0-9), however more than this is allowed if ASCII codes which follow "0"-9 are given, but 0-9 should be used as standard. Because all labels within a macro definition are operated on as localized, any parameter passed to it will need to be prefixed with a full stop if they refer to a global label outside of the definition.

#### Example of a Top Level Source File

```
!M RED = 2 ! global label outside of
a macro definition
!M COLOUR,RED ! prefix with
a "!" as we are using the global label
RED within the macro definition.
```

You will be told if you try to invoke a macro that is not present in the macro library. If a parameter is required by a macro definition and not given on invoking it, a 'PARAMETER MISSING' error will be issued. This is because no comma will be looked for (as it is param,0) and data that was expected to be in the buffer will be used. The above is of course a rarity, but worthwhile to mention. Any parameter given to a particular macro definition will only be verified once it has been expanded into the source file.

## Where to Invoke Macros

You cannot 'nest' a macro, i.e. call a macro from within a macro definition - if you do a 'NESTED MACRO CALL' error will be given. It is possible to invoke a macro definition from within an included file. If an error occurs when invoking a macro, the line of the invocation will be shown, but the text given will be from the offending system from within the macro file. At this point a comment symbol will appear preceding the text, it is not a 'bug', but the way in which the assembler handles the data from inside a macro. I just thought that I'd mention it!

## Error Messages and Reports

There is a comprehensive set of error messages which are detailed below. In each case they are used when a direct command is issued, or when an error is found during assembly. In this case the offending line number is shown together with the file in which it occurred. The error messages comprise of an error number, along with a summary of the error.

**00 INVALID COMMAND** - An invalid command has been typed in at the command level. Use the '?' command to see a summary of the other commands available.

**01 INVALID HEX DIGIT** - A digit has been used after the '\$' which is not in the range 0-F, or the correct number of hex digits has not been used.

**02 NO OPCODE PRESENT** - A line is found to have no opcode or directive to work with.

**03 LABEL REDEFINED** - A label has been defined more than once in the same source file.

**04 ILLEGAL ADDRESSING MODE** - There has been an attempt to use a 6500 instruction that is in the incorrect context. Eg. LDA \$PRZ,X will produce this error.

**05 NOT ZERO PAGE** - A 05 00 number has been used where an 0-bit expression was expected, for example in immediate addressing mode, or in the RYX directive.

**06 LABEL UNDEFINED** - There is found to be a reference to a label that you have not defined.

**07 INVALID INDEX** - An index letter other than X or Y has been used. LDA \$PRZ will produce this error.

**08 BRANCH TOO FAR** - A relative branch has been used which exceeds the relative (-128/+127) byte limit.

**09 UNDEFINED MACRO CALL** - The macroname is trying to invoke a macro that has not been defined using the \$ syntax.

**10 MACRO PARAMETER MISSING** - A pre-defined macro definition is expecting a parameter to be passed to it when invoking it.

**11 FILENAME NOT FOUND/ I/O ERROR** - This is the general failure of a command which reads data from a storage device. If the file is not found you will be told, and when you have inserted the correct disk any key will allow the load operation to continue. Pressing RUN/STOP will abort, and give the above error message. This allows for extremely large linked or included files to be chained - as they don't have to be present on the same disk, so you are not limited by the disk space.

**12 INVALID BINARY NUMBER** - A number following the '%X' prefix does not contain a full set of 8 '0's or '1's, or if other characters which are not '0' or '1' are used.

**13 DEVICE OFF LINE** - The OUT directive has selected a device (as output that is not connected to the computer, or is not switched on).

**14 NESTED MACRO CALL** - A macro that is being called or invoked is trying to invoke a macro.

**15 NESTED INCLUDE FILE** - An included file is trying to use a DYN-INCLUDE directive within itself.

**16 NESTED INCLUDE/MACRO** - An included file is trying to define a macro within itself to. Error command inside an included file.

**17 EXPRESSION OVERFLOW** - An expression is found to be over the 16-bit range ie. (0 or) 65535.

**18 SYMBOL TABLE FULL** - The symbol table limit has been reached - the config program allows the start and limit addresses to be changed as required.

**19 MACRO DIRECTORY FULL** - As above, but refers to the macro directory.

**20 MACRO LIBRARY FULL** - As above but for the macro library.

The above example shows the conditional statements in action. It gives A = 0 if flag = true, A = 1 if flag is false.

The instructions STA 5320 and RTS will be assembled whatever the previous conditions permitted. If assembly is turned off any further conditional statements must be on a separate line from a label.

Take the following to be when the condition is currently in an-assembly mode.

**LABEL ENDIF 1** will skip this line as LABEL is not to be defined, but the single line of ENDIF will work fine (ie)

ENDIF 1 alone is required.

On any new usage of the editors 'A' command the conditional flag is automatically set to true - assembly on.

## Syntax of Expressions

When hexadecimal numbers are used they must follow either hex or \$hexx where x is a valid hexadecimal digit. Any other combination of hex digits will fail any checks. Only 8 bit binary is allowed but all 8 bits must be specified after the '%X'.

## Additional Notes

Note that the assembler is set up for disk usage from device 8. Using disk as the medium allows the macro/include/SYM tools to function. These features of the assembler cannot be used with cassette. The remainder of the assembler's functions remain intact for cassette users. Disk commands : list from disk/directory are of course disk specific.





# C64 PROGRAMMING

|    |                                                                                 |    |                                                                                 |    |                                                                               |    |                                                                              |    |                                                                                  |    |                                                                                   |    |                                                                               |    |                                                                            |    |                                                                               |    |                                                                               |    |                                                                               |    |                                                                               |    |                                                                               |    |                                                                               |    |                                                                               |    |                                                                               |    |                                                                               |    |                                                                               |    |                                                                               |    |                                                                               |     |                                                                               |
|----|---------------------------------------------------------------------------------|----|---------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|----------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------|
| 80 | 1000 DATA 0,191,108,111,173,<br>51,506,008,0,0,373,000,100,000,<br>3,78,00,1000 | 81 | 1000 DATA 00,200,78,000,117,<br>373,000,100,001,74,000,0,30,<br>101,100,70,0000 | 82 | 1000 DATA 000,117,000,70,000,<br>3,70,000,117,000,000,0,0,<br>70,000,117,0000 | 83 | 1000 DATA 001,001,001,10,001,<br>07,000,0,001,00,000,0,000,70,<br>70,00,1000 | 84 | 1000 DATA 100,000,00,000,00,<br>000,70,000,00,001,00,000,000,<br>001,00,000,0000 | 85 | 1000 DATA 00,00,000,0,70,000,100,0,<br>00,00,000,0,70,0,000,001,70,<br>000,0,0000 | 86 | 1000 DATA 0,70,0,100,70,00,1,<br>70,001,000,000,3,70,100,100,0,<br>00,00,1000 | 87 | 1000 DATA 000,3,70,0,100,001,<br>70,000,3,70,00,100,001,70,0,<br>00,3,1000 | 88 | 1000 DATA 70,000,117,001,70,<br>000,0,70,000,117,001,00,000,<br>0,00,000,0000 | 89 | 1000 DATA 000,70,000,117,000,<br>00,000,0,70,000,117,001,70,<br>000,0,00,0000 | 90 | 1000 DATA 000,70,000,117,000,<br>00,000,0,70,000,117,001,70,<br>000,0,00,0000 | 91 | 1000 DATA 000,70,000,117,000,<br>00,000,0,70,000,117,001,70,<br>000,0,00,0000 | 92 | 1000 DATA 000,70,000,117,000,<br>00,000,0,70,000,117,001,70,<br>000,0,00,0000 | 93 | 1000 DATA 000,70,000,117,000,<br>00,000,0,70,000,117,001,70,<br>000,0,00,0000 | 94 | 1000 DATA 000,70,000,117,000,<br>00,000,0,70,000,117,001,70,<br>000,0,00,0000 | 95 | 1000 DATA 000,70,000,117,000,<br>00,000,0,70,000,117,001,70,<br>000,0,00,0000 | 96 | 1000 DATA 000,70,000,117,000,<br>00,000,0,70,000,117,001,70,<br>000,0,00,0000 | 97 | 1000 DATA 000,70,000,117,000,<br>00,000,0,70,000,117,001,70,<br>000,0,00,0000 | 98 | 1000 DATA 000,70,000,117,000,<br>00,000,0,70,000,117,001,70,<br>000,0,00,0000 | 99 | 1000 DATA 000,70,000,117,000,<br>00,000,0,70,000,117,001,70,<br>000,0,00,0000 | 100 | 1000 DATA 000,70,000,117,000,<br>00,000,0,70,000,117,001,70,<br>000,0,00,0000 |
|----|---------------------------------------------------------------------------------|----|---------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|----------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------|















# C64 PROGRAMMING

|    |                                                                                        |    |                                                                                  |    |                                                                                   |
|----|----------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------------|
| 03 | 700 0000 180,000,180,000,000,0<br>0,180,000,000,000,0,180,000,0<br>0,180,000,000,000,0 | 87 | 080 0000 30,000,000,00,000,0<br>00,001,00,000,000,000,00,00,<br>000,000,00,0000  | 90 | 1000 0000 110,000,00,000,00,<br>000,000,00,001,100,100,00,000,<br>000,00,00,0000  |
| 04 | 710 0000 000,100,000,00,00,0<br>000,000,00,000,00,000,0,00,0<br>0,100,00,0000          | 88 | 090 0000 00,000,000,000,000,<br>00,000,000,000,000,000,000,<br>000,00,000,0000   | 91 | 1000 0000 100,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 |
| 05 | 720 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000       | 89 | 080 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 | 92 | 1000 0000 100,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 |
| 06 | 730 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000       | 90 | 090 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 | 93 | 1000 0000 100,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 |
| 07 | 740 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000       | 91 | 080 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 | 94 | 1000 0000 100,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 |
| 08 | 750 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000       | 92 | 090 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 | 95 | 1000 0000 100,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 |
| 09 | 760 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000       | 93 | 080 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 | 96 | 1000 0000 100,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 |
| 10 | 770 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000       | 94 | 090 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 | 97 | 1000 0000 100,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 |
| 11 | 780 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000       | 95 | 080 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 | 98 | 1000 0000 100,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 |
| 12 | 790 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000       | 96 | 090 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 | 99 | 1000 0000 100,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 |
| 13 | 800 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000       | 97 | 080 0000 000,000,000,000,000,<br>000,000,000,000,000,000,000,<br>000,00,000,0000 |    |                                                                                   |





## Give your Expert Cartridge a boost with this handy routine

By R. Drummond

# MEMORY RESTORER

**A** station *Expert Cartridge* user!

Have you ever tried to back-up a program, only to find half way through loading it, the computer suddenly resets or crashes?

Here is the solution to this aggravating problem: *Memory Restorer*.

terribly, some programs detect this change and cease loading. This problem can be overcome by restoring the memory to its original power-up state (alternate 32 byte blocks of 255 and 0).

### How To Enter

Switch the computer on and off (or enter *Expert* and type 'N'), and then enter this line:

POKE 41,6 : POKE 40960 : NEW

This raises the bottom of the Basic memory, so that the restorer can be loaded in below it.

Now type in the Basic loader entitled "restorer base" and RUN it. Correct any errors, and RUN it again.

When it is finished, you will be asked which device you wish the program to be saved to. Press '1' for tape or '2' for disk.

Well, that's 2. The Restorer should enable you to load some previously unLOADable programs, but it still does not guarantee success in loading.

If you have any problems or suggestions to make, please contact me through Your Commodore, or MEX, or on CompuNet (BCDI).

### PROGRAM CONFIGURE

```

70 GO SUB 1000 *** BASIC ASSEMBLER &
 BASIC CONFIGURE 144 80FFC 100
 0 ***
80 GO INPUT "NAME ASSEMBLER TO
 WHICH DEVICE?",E$
85 GO SUB 1000 10100,1100,11-100,1000
 0
100 GO RESTORE FOR L=1000:FOR N=0
 TO 1:GET L:GET L:PRINT L;"RESTORE
 L=";
110 GO OF GET L:IF L=0:GOTO 11:IF N=0
 GO L:IF N=0:PRINT "L=";
120 GO PRINT "L=";
130 GO PRINT "L=";
140 GO PRINT "L=";
150 GO PRINT "L=";
160 GO PRINT "L=";
170 GO PRINT "L=";
180 GO PRINT "L=";
190 GO PRINT "L=";
200 GO PRINT "L=";
210 GO PRINT "L=";
220 GO PRINT "L=";
230 GO PRINT "L=";
240 GO PRINT "L=";
250 GO PRINT "L=";
260 GO PRINT "L=";
270 GO PRINT "L=";
280 GO PRINT "L=";
290 GO PRINT "L=";
300 GO PRINT "L=";
310 GO PRINT "L=";
320 GO PRINT "L=";
330 GO PRINT "L=";
340 GO PRINT "L=";
350 GO PRINT "L=";
360 GO PRINT "L=";
370 GO PRINT "L=";
380 GO PRINT "L=";
390 GO PRINT "L=";
400 GO PRINT "L=";
410 GO PRINT "L=";
420 GO PRINT "L=";
430 GO PRINT "L=";
440 GO PRINT "L=";
450 GO PRINT "L=";
460 GO PRINT "L=";
470 GO PRINT "L=";
480 GO PRINT "L=";
490 GO PRINT "L=";
500 GO PRINT "L=";
510 GO PRINT "L=";
520 GO PRINT "L=";
530 GO PRINT "L=";
540 GO PRINT "L=";
550 GO PRINT "L=";
560 GO PRINT "L=";
570 GO PRINT "L=";
580 GO PRINT "L=";
590 GO PRINT "L=";
600 GO PRINT "L=";
610 GO PRINT "L=";
620 GO PRINT "L=";
630 GO PRINT "L=";
640 GO PRINT "L=";
650 GO PRINT "L=";
660 GO PRINT "L=";
670 GO PRINT "L=";
680 GO PRINT "L=";
690 GO PRINT "L=";
700 GO PRINT "L=";
710 GO PRINT "L=";
720 GO PRINT "L=";
730 GO PRINT "L=";
740 GO PRINT "L=";
750 GO PRINT "L=";
760 GO PRINT "L=";
770 GO PRINT "L=";
780 GO PRINT "L=";
790 GO PRINT "L=";
800 GO PRINT "L=";
810 GO PRINT "L=";
820 GO PRINT "L=";
830 GO PRINT "L=";
840 GO PRINT "L=";
850 GO PRINT "L=";
860 GO PRINT "L=";
870 GO PRINT "L=";
880 GO PRINT "L=";
890 GO PRINT "L=";
900 GO PRINT "L=";
910 GO PRINT "L=";
920 GO PRINT "L=";
930 GO PRINT "L=";
940 GO PRINT "L=";
950 GO PRINT "L=";
960 GO PRINT "L=";
970 GO PRINT "L=";
980 GO PRINT "L=";
990 GO PRINT "L=";

```

### How To Use

Program the *Expert* as normal and type 'N' to reset. Load *Memory Restorer* by typing:

LOAD "MEMORY RESTORER"  
(add \$ for disk)

and then RUN it.

When instructed switch off the *Expert* and press reset. Now load the program to be copied, switch on the *Expert*, press RESTORE (press ESM if light is lit), and save as normal (type '2' for program name).

### How It Works

The 'N' command in the *Expert* clears the whole memory so that its computer is as efficient as possible. Unfor-

## PROGRAM: RESTORE.BAS

```

01 10 A=2048:B=26:C=100
02 20 FORD=OTOS:E=0:FORF=OTOS:R
EADD
16 30 IFB<ODDQ>:SSSTHENPRINT"ERR
OR IN LINE":C=(D*10):END
07 40 FOKA+(D*B)+F,B=S+E+B:NEK
TF
38 50 READ:IFD<>:ETHENPRINT"ERR
OR IN LINE":C=(D*10)
02 60 NEXTD
70 100 DATA 16,8,188,7,158,50,4
8,54,537
40 110 DATA 54,58,82,87,88,43,0
,0,378
03 120 DATA 0,188,11,141,32,208
,141,33,738
0F 130 DATA 208,183,15,141,134,
2,183,23,851
08 140 DATA 141,34,208,188,128,
141,145,2,358
F5 150 DATA 32,68,228,180,0,188
,182,8,864
F4 160 DATA 153,0,4,200,132,34,
208,245,1038
12 170 DATA 180,0,188,73,8,153,
52,3,634
48 180 DATA 200,182,112,208,245
,76,52,3,1088
07 190 DATA 120,182,0,133,1,188
,0,133,725
FE 200 DATA 251,188,8,133,252,1
82,248,180,1383
14 210 DATA 187,188,0,145,251,1
38,132,53,1083
82 220 DATA 208,245,183,255,145
,251,138,18,1423
05 230 DATA 251,185,251,24,185,
189,133,251,1308
80 240 DATA 185,252,185,0,133,2
52,202,208,1317
04 250 DATA 222,185,252,201,132
,240,214,188,1595
9A 260 DATA 55,133,1,180,0,185,
128,3,665
78 270 DATA 153,80,4,200,132,32
,208,245,1114
2F 280 DATA 78,124,3,0,84,21,18
,14,340
75 290 DATA 32,83,21,16,5,18,20
,32,218
A1 300 DATA 78,70,70,48,32,80,1
8,5,400
0A 310 DATA 15,19,32,82,5,15,5,
80,801
83 320 DATA 48,32,32,32,0,68,24
,16,251
F8 330 DATA 5,18,20,32,77,5,13,
15,185
51 340 DATA 18,25,32,82,5,13,20
,15,216
0F 350 DATA 18,5,18,32,45,32,82
,67,238
87 360 DATA 68,48,32,43,57,58,5
5,32,388
7A 370 DATA 0,0,0,0,0,0,0,32,32
0A 380 DATA 228,255,201,48,240,
3,201,50,1233
E2 390 DATA 208,245,162,8,78,24
2,8,182,1111
53 400 DATA 1,183,1,180,0,32,18
5,255,807
79 410 DATA 183,15,162,18,180,3
,32,183,752
31 420 DATA 255,163,1,133,251,1
68,8,133,1119
85 430 DATA 252,188,251,182,218
,180,8,76,1298
8A 440 DATA 218,255,77,83,77,78
,82,89,844
03 450 DATA 32,82,83,83,84,78,8
2,68,580
22 460 DATA 82,0,0,0,0,0,0,82
80 500 PRINT"CLEIPRESS '1' TO
SAVE RESTORE TO TAPE,"
01 510 PRINT"SPC3IOR '2' TO SA
VE TO DISK."
19 520 SYS2272

```

# LOADERBUILDER

Create your own Basic loaders without effort for all those data statements  
By J. Kinley

It's well past midnight, the masterpiece of machine code programming you've devoted many hours of your life to writing is finally bug-free and running beautifully. Filled with a longing to share your creation with your fellow man, you survey your arsenal of machine code development aids - editors, assemblers, loaders and the rest. If only you had an easy way of turning your work back into a nice, simple Basic loader that other users could type in...

Loaderbuild is just the utility you've been looking for. This program will take machine code (or any other numerical data) stored in the memory of your C64, and turn it into a Basic loader. This has a lot of potential applications. Maybe you want to submit your code to a magazine for publication? A Loaderbuild loader is an ideal form of presentation. Your code will be turned into DATA statements, with a checksum for each line, as an aid to anyone typing the loader into their own machine. You could also make use of Loaderbuild to share your programs with a friend who lacks your own development facilities. Perhaps you could use it just to keep your work in an easily accessible form. For whatever reason, most machine code programmers should find Loaderbuild a useful addition to their collection of utilities.

The listing of the "DEMO" program is an example of a loader constructed by Loaderbuild. The start address for the machine code is automatically inserted into line 148, and the number of DATA lines calculated and entered into line 120.

The machine code data in question is then written into DATA statements,

starting from line 200, with 16 items to each line. If necessary, the last DATA line is made up to full length with zeros. Every DATA statement is given a checksum as a guard against typing errors if the loader is keyed into another computer.

If you want to try "DEMO" out, enter it into your C64 then RUN it. There will be a brief pause while the DATA lines are POKE'd into memory, in this case from location 49152 onwards. Now use SYS 49152 to run the machine code. OK, not very exciting, but serves to demonstrate the idea!

## Using Loaderbuild

Loaderbuild is written in Basic. No problem if your machine code is in a 'safe' area of the computer (such as above location 49152). However, if your code is in an area normally used by Basic, then don't forget to reset top or bottom of Basic as necessary before letting Loaderbuild loose in your machine.

If you don't know how, the limits of the Basic area are set using the following POKEs:-

POKE 51, (bottom of BASIC, low byte)  
POKE 52, (bottom of BASIC, high byte)  
POKE 55, (top of BASIC, low byte)  
POKE 56, (top of BASIC, high byte)

If you make any adjustments, follow them with a CLR to get the computer used to the idea.

Now load 'LOADERBUILD' and RUN it.

The program will ask you to input start and finish addresses for the code to be worked on. You can enter this information in either decimal, or in hex (preceded with the customary \$ sign).

Next tell the program the name under which the new loader is to be stored on disk - and that's it, the computer does the rest.

To use your loader, reset top and

bottom of Basic if necessary (see above), then simply LOAD it from disk, where it will have been saved under the name you gave it, and RUN in the usual way.

## How Loaderbuild Works

### Lines 1000-2100

The input section for start and finish addresses, and loader name. Calls subroutines at line 4000 to check against invalid entries, and 7000 to handle any input errors.

### Lines 2000-3000

Sets up the Basic lines of the loader and writes them to disk. Inserts start address into loader, and calculated number of DATA lines. Note variables KL and KH. These are pointers to the start of the next line in Basic, and must be calculated for each line. The actual Basic lines are in coded DATA statements, starting from line 10000. Repeated calls are made to subroutines at 8000 (which finishes construction of each Basic line and numbers it), and 9000 (which writes a Basic line to disk).

### Lines 4000-4999

Compiles DATA statements, 16 items to a line. Fills last line with zeros as necessary. Calls subroutine at 5000, which finishes construction of the Basic DATA statement.

### Lines 5000-5999

See 4000-4999. Calls subroutine at 6000 to write BASIC line to disk.

### Lines 6000-6268

Checks start and finish addresses for following conditions:-

Illegal characters  
Entry too long  
Invalid memory location

Also converts hex entries into decimal.

### Lines 7000-7999

Prompts error message and waits for a key to be pressed before continuing. Lines 8000-8150 & Lines 9000-9099

### See lines 300-1300

### Lines 10000-10120

DATA statements containing BASIC lines. All keywords are in tabulated form, flagged with # sign.





**RAMSOFT**

UNIT 1 BRIDGE HOUSE  
120 OSNEY STREET  
OXFORD, OX1 2DQ  
TEL. 0793 52951

**RAMSOFTS BOOK SHOP**

FORMERLY 16 BIT SOFTWARE

**★ A500 BAT PACK ★**

A500, TV MODULATOR, JOYSTICK, DELUXE  
PAINT II, INTERCEPTOR, NEW ZEALAND STORY  
& BATMAN - THE MOVIE

\*\*\*\* £369.00 \*\*\*\*

**★ A500 BAT PACK + ★**

THIS PACK AS ABOVE PLUS TEN STAR PACK.

10 DISKS, 1 SET OF DISK II HANDLING & COPY TOOL, LAMAR  
WARRANTY & BATTERY FLIGHT, 1 INTERCEPTOR & 1 ZEALANDER &  
1 ZEALANDER TV, 1 ZEALANDER.

**R.S. PRICE £389.00**

COMMODORE 1084S £249.00

PHILIPS CM 8032 £294.00

ALL BOOKS NOW INCLUDE LAMAR

**SELECT A PACK**

CHOOSE ANY OF OUR TWO BAT PACKS  
AND WE WILL OFFER A COLOUR STEREO  
MONITOR FOR ONLY

**PHILIPS £210.00** (CM 8032)**ROM UPGRADE**

UPGRADE YOUR 1.2 KICKSTART  
NEW 1.3 ROMS NOW AVAILABLE  
£29.00

**PRINTERS**

ASTAR LC 10. MONO £158.00

STAR LC 10 COL. £199.00

SEIKOSHA

ALL MODELS AVAILABLE

ALL OUR PRINTER PRICES ARE INCLUSIVE OF  
LEADS

Q/INK 1MEG 3.5" EXT. DRIVE, LOW POWER,  
THROUGHPUT (SABINE) ONLY £79.95

BULK 3.5" DISKS £10 - LABELS, ONLY £7.99-100  
CAP DISK BOX £9.90

JOYSTICKS, KONIX NAVIGATOR  
£12.95, QUICKSHORT II TURBO £9.95

PLEASE NOTE, ALL OUR PRICES INCLUDE VAT &  
COURIER DELIVERY, ALL ITEMS DESPATCHED  
WITHIN 24 HRS. DEPENDANT ON AVAILABILITY &  
CHECK CLEARANCE, PRICES SUBJECT TO  
CHANGE WITHOUT PRIOR NOTICE AT ANY TIME.

ALL PRICES SHOWN ARE FOR MAIL ORDER ONLY

E.&amp;O.E.

ACCESS VISA  
& STYLE  
WELCOME

|                                                                         |         |
|-------------------------------------------------------------------------|---------|
| ★ Amiga DOS Quick Reference (Manual) .....                              | £ 29.00 |
| ★ Motorola 68000 Programmer Ref Man (Manual) .....                      | £ 29.00 |
| ★ 2001 Things To Do With Your Amiga (Disk) .....                        | £ 29.00 |
| ★ Amiga for Beginners (Manual) .....                                    | £ 31.95 |
| ★ Keyboard Guide to the Amiga (Articles) .....                          | £ 33.95 |
| ★ Kalls and the Amiga (Compuart) .....                                  | £ 33.95 |
| ★ Elementary Amiga BASIC (Compuart) (D) .....                           | £ 32.95 |
| ★ Amiga Machine Language (Manual) (D) .....                             | £ 32.95 |
| ★ Amiga Programmer's Guide (Compuart) .....                             | £ 31.95 |
| ★ Amiga DOS Reference Guide (Compuart) .....                            | £ 31.95 |
| ★ Amiga Tricks and Tips (Manual) (D) .....                              | £ 31.95 |
| ★ Inside Amiga Graphics (Compuart) (D) .....                            | £ 31.95 |
| ★ Amiga C for Beginners (Manual) (D) .....                              | £ 31.95 |
| ★ Amiga Applications (Compuart) (D) .....                               | £ 31.95 |
| ★ Plus Pack of the Amiga (Compuart) (D) .....                           | £ 31.95 |
| ★ Amiga DOS - Inside & Out (Manual) (D) .....                           | £ 31.95 |
| ★ Advanced Amiga BASIC (Compuart) (D) .....                             | £ 31.95 |
| ★ Computer Viruses - A High Tech Threat (Manual - NEW) .....            | £ 31.95 |
| ★ Amiga Users Guide to Graphics, Sound, Television (Manual) .....       | £ 31.95 |
| ★ Becoming an Amiga Artist (Book-Permanent - NEW) .....                 | £ 31.95 |
| ★ Amiga 800 Graphics Programming in BASIC<br>(Manual - New) (D) .....   | £ 31.95 |
| ★ Amiga Machine Language Programming Guide (Compuart) (D) .....         | £ 31.95 |
| ★ Using Deluxe Paint II (Compuart) .....                                | £ 31.95 |
| ★ Learning C - Graphics on Amiga & Atari ST<br>(Compuart) (D) .....     | £ 31.95 |
| ★ Amiga BASIC - Inside & Out (Manual) (D) .....                         | £ 31.95 |
| ★ Amiga Marmot BASIC Programming Guide<br>(Book-Permanent) .....        | £ 31.95 |
| ★ Inside the Amiga with C (Manual) .....                                | £ 31.95 |
| ★ Amiga DOS Manual (Manual) .....                                       | £ 31.95 |
| ★ Programming the 68000 (System) .....                                  | £ 31.95 |
| ★ Amiga Disk Drive - Inside & Out (Manual) (D) .....                    | £ 31.95 |
| ★ Programmer's Guide to the Amiga (System) .....                        | £ 31.95 |
| ★ Amiga Programmer's Handbook (System) .....                            | £ 31.95 |
| ★ Amiga Programmer's Handbook, Vol 2 (System) .....                     | £ 31.95 |
| ★ Amiga ROM Kernel Ref. Man: Includes & Assembly<br>(C.A.T. NEWS) ..... | £ 31.95 |
| ★ Amiga for Advanced Programmers (Manual-NEW) .....                     | £ 31.95 |
| ★ Amiga System Programmer's Guide (Manual) (D) .....                    | £ 31.95 |
| ★ Amiga Graphics - Inside & Out (Manual - New) (D) .....                | £ 31.95 |

BOOKS MARKED (D) HAVE A DISK AVAILABLE.  
£29.95. DISK MAY BE PURCHASED SEPARATELY.

**★★★★RAMSOFT EXTRAS.★★★★**

RAM EXPANSION - 512K CARTRIDGE-  
WITH CLOCK £90.80

**SOFTWARE SPECIALS**

BEAST, EARLY #4PAL COW MISSION DISK £12.99  
#4PROMISED LANDS £7.99  
#4AL PERED BEAST £17.99 #4RANDOM ORC £9.99  
#4BLACK MAGIC £9.99  
#4 PLEASE RING FOR PRICES ON OTHER TITLES.  
ALL PRICES ARE INCLUSIVE OF POSTAGE.



# TREAT YOURSELF... TREAT A FRIEND!



Subscribe to  
**YOUR COMMODORE**  
and receive a  
**FREE** keyboard dust  
cover and mouse-mat  
worth a total of £10.70!

That's right if you take out  
a years subscription to  
**YOUR COMMODORE**  
for either yourself or  
for a friend, not only  
will we make sure  
it's delivered to you  
each month at no extra charge\*,  
but you or the recipient of your gift  
subscription will also receive these two  
stylish Your Commodore  
computer accessories absolutely free!

#### Subscription Rates:

|                   |        |
|-------------------|--------|
| UK                | £15.00 |
| Europe            | £20.00 |
| Middle East       | £20.00 |
| Far East          | £26.00 |
| Rest of The World | £24.00 |

Airmail Rates on Request

\* Overseas Subscriptions include postage

Just fill in the coupon below  
and send it to the address given  
with a cheque, money order or credit card  
instructions to cover the cost of the subscription.  
We'll do the rest.

This offer closes on Friday  
1st December 1988 and is  
also open to current **YOUR  
COMMODORE** subscribers  
who wish to renew or  
extend their current  
subscription but must do so  
using the order form  
provided.

Please allow 28 days for  
delivery of your gift. To  
guarantee receipt of gift  
subscription before  
Christmas, orders **MUST** be  
received by the closing  
date.

#### PLEASE TICK

- I would like to subscribe to **YOUR COMMODORE** and receive a free gift.  
 I would like to send a **YOUR COMMODORE** gift subscription and free gift.

MY NAME ..... RECIPIENT'S NAME .....  
 ADDRESS ..... ADDRESS .....  
 ..... POSTCODE ..... POSTCODE .....  
 New Subscriber  Renewal  New Subscriber  Renewal

Please enclose the subscription(s) with the ..... issue. I enclose by cheque/money order for £.....  
 payable to A.S.P. or debit my Access/Visa Account.

Signature ..... Date ..... Valid from ..... to .....

The Subscription Manager (P.O. Box), Argus Specialist Publications, Argus House, Bourneville Way, Hemel Hempstead,  
 Herts. HP8 4ET.



# HOLMESOFT

MAIL ORDER DIVISION OF ESTABLISHED RETAILER

DEPARTMENT VC  
ALDERWOOD  
CENTRE  
BROOKLYN, QUEEN  
B. ROAD, LONDON  
E11 2JG  
(Tel: 0800-41 8888-1888)

YOUR FUTURE IS OUR  
PAST AND PRESENT  
We are proud to be  
the leading computer  
retailer in the UK



MasterCard Credit Card  
Master Plus Range 1-800-000000

HOLMESOFT  
Computerware for you  
(Homebased Computer)

SAME DAY  
DESPATCH

| COMMODORE 64 |       | COMMODORE 64 |       |
|--------------|-------|--------------|-------|
| Code         | Price | Code         | Price |
| 101          | 14.95 | 101          | 14.95 |
| 102          | 14.95 | 102          | 14.95 |
| 103          | 14.95 | 103          | 14.95 |
| 104          | 14.95 | 104          | 14.95 |
| 105          | 14.95 | 105          | 14.95 |
| 106          | 14.95 | 106          | 14.95 |
| 107          | 14.95 | 107          | 14.95 |
| 108          | 14.95 | 108          | 14.95 |
| 109          | 14.95 | 109          | 14.95 |
| 110          | 14.95 | 110          | 14.95 |
| 111          | 14.95 | 111          | 14.95 |
| 112          | 14.95 | 112          | 14.95 |
| 113          | 14.95 | 113          | 14.95 |
| 114          | 14.95 | 114          | 14.95 |
| 115          | 14.95 | 115          | 14.95 |
| 116          | 14.95 | 116          | 14.95 |
| 117          | 14.95 | 117          | 14.95 |
| 118          | 14.95 | 118          | 14.95 |
| 119          | 14.95 | 119          | 14.95 |
| 120          | 14.95 | 120          | 14.95 |
| 121          | 14.95 | 121          | 14.95 |
| 122          | 14.95 | 122          | 14.95 |
| 123          | 14.95 | 123          | 14.95 |
| 124          | 14.95 | 124          | 14.95 |
| 125          | 14.95 | 125          | 14.95 |
| 126          | 14.95 | 126          | 14.95 |
| 127          | 14.95 | 127          | 14.95 |
| 128          | 14.95 | 128          | 14.95 |
| 129          | 14.95 | 129          | 14.95 |
| 130          | 14.95 | 130          | 14.95 |
| 131          | 14.95 | 131          | 14.95 |
| 132          | 14.95 | 132          | 14.95 |
| 133          | 14.95 | 133          | 14.95 |
| 134          | 14.95 | 134          | 14.95 |
| 135          | 14.95 | 135          | 14.95 |
| 136          | 14.95 | 136          | 14.95 |
| 137          | 14.95 | 137          | 14.95 |
| 138          | 14.95 | 138          | 14.95 |
| 139          | 14.95 | 139          | 14.95 |
| 140          | 14.95 | 140          | 14.95 |
| 141          | 14.95 | 141          | 14.95 |
| 142          | 14.95 | 142          | 14.95 |
| 143          | 14.95 | 143          | 14.95 |
| 144          | 14.95 | 144          | 14.95 |
| 145          | 14.95 | 145          | 14.95 |
| 146          | 14.95 | 146          | 14.95 |
| 147          | 14.95 | 147          | 14.95 |
| 148          | 14.95 | 148          | 14.95 |
| 149          | 14.95 | 149          | 14.95 |
| 150          | 14.95 | 150          | 14.95 |
| 151          | 14.95 | 151          | 14.95 |
| 152          | 14.95 | 152          | 14.95 |
| 153          | 14.95 | 153          | 14.95 |
| 154          | 14.95 | 154          | 14.95 |
| 155          | 14.95 | 155          | 14.95 |
| 156          | 14.95 | 156          | 14.95 |
| 157          | 14.95 | 157          | 14.95 |
| 158          | 14.95 | 158          | 14.95 |
| 159          | 14.95 | 159          | 14.95 |
| 160          | 14.95 | 160          | 14.95 |
| 161          | 14.95 | 161          | 14.95 |
| 162          | 14.95 | 162          | 14.95 |
| 163          | 14.95 | 163          | 14.95 |
| 164          | 14.95 | 164          | 14.95 |
| 165          | 14.95 | 165          | 14.95 |
| 166          | 14.95 | 166          | 14.95 |
| 167          | 14.95 | 167          | 14.95 |
| 168          | 14.95 | 168          | 14.95 |
| 169          | 14.95 | 169          | 14.95 |
| 170          | 14.95 | 170          | 14.95 |
| 171          | 14.95 | 171          | 14.95 |
| 172          | 14.95 | 172          | 14.95 |
| 173          | 14.95 | 173          | 14.95 |
| 174          | 14.95 | 174          | 14.95 |
| 175          | 14.95 | 175          | 14.95 |
| 176          | 14.95 | 176          | 14.95 |
| 177          | 14.95 | 177          | 14.95 |
| 178          | 14.95 | 178          | 14.95 |
| 179          | 14.95 | 179          | 14.95 |
| 180          | 14.95 | 180          | 14.95 |
| 181          | 14.95 | 181          | 14.95 |
| 182          | 14.95 | 182          | 14.95 |
| 183          | 14.95 | 183          | 14.95 |
| 184          | 14.95 | 184          | 14.95 |
| 185          | 14.95 | 185          | 14.95 |
| 186          | 14.95 | 186          | 14.95 |
| 187          | 14.95 | 187          | 14.95 |
| 188          | 14.95 | 188          | 14.95 |
| 189          | 14.95 | 189          | 14.95 |
| 190          | 14.95 | 190          | 14.95 |
| 191          | 14.95 | 191          | 14.95 |
| 192          | 14.95 | 192          | 14.95 |
| 193          | 14.95 | 193          | 14.95 |
| 194          | 14.95 | 194          | 14.95 |
| 195          | 14.95 | 195          | 14.95 |
| 196          | 14.95 | 196          | 14.95 |
| 197          | 14.95 | 197          | 14.95 |
| 198          | 14.95 | 198          | 14.95 |
| 199          | 14.95 | 199          | 14.95 |
| 200          | 14.95 | 200          | 14.95 |

| COMMODORE 64 |       | COM ACCESSORIES |       |
|--------------|-------|-----------------|-------|
| Code         | Price | Code            | Price |
| 201          | 14.95 | 201             | 14.95 |
| 202          | 14.95 | 202             | 14.95 |
| 203          | 14.95 | 203             | 14.95 |
| 204          | 14.95 | 204             | 14.95 |
| 205          | 14.95 | 205             | 14.95 |
| 206          | 14.95 | 206             | 14.95 |
| 207          | 14.95 | 207             | 14.95 |
| 208          | 14.95 | 208             | 14.95 |
| 209          | 14.95 | 209             | 14.95 |
| 210          | 14.95 | 210             | 14.95 |
| 211          | 14.95 | 211             | 14.95 |
| 212          | 14.95 | 212             | 14.95 |
| 213          | 14.95 | 213             | 14.95 |
| 214          | 14.95 | 214             | 14.95 |
| 215          | 14.95 | 215             | 14.95 |
| 216          | 14.95 | 216             | 14.95 |
| 217          | 14.95 | 217             | 14.95 |
| 218          | 14.95 | 218             | 14.95 |
| 219          | 14.95 | 219             | 14.95 |
| 220          | 14.95 | 220             | 14.95 |
| 221          | 14.95 | 221             | 14.95 |
| 222          | 14.95 | 222             | 14.95 |
| 223          | 14.95 | 223             | 14.95 |
| 224          | 14.95 | 224             | 14.95 |
| 225          | 14.95 | 225             | 14.95 |
| 226          | 14.95 | 226             | 14.95 |
| 227          | 14.95 | 227             | 14.95 |
| 228          | 14.95 | 228             | 14.95 |
| 229          | 14.95 | 229             | 14.95 |
| 230          | 14.95 | 230             | 14.95 |
| 231          | 14.95 | 231             | 14.95 |
| 232          | 14.95 | 232             | 14.95 |
| 233          | 14.95 | 233             | 14.95 |
| 234          | 14.95 | 234             | 14.95 |
| 235          | 14.95 | 235             | 14.95 |
| 236          | 14.95 | 236             | 14.95 |
| 237          | 14.95 | 237             | 14.95 |
| 238          | 14.95 | 238             | 14.95 |
| 239          | 14.95 | 239             | 14.95 |
| 240          | 14.95 | 240             | 14.95 |
| 241          | 14.95 | 241             | 14.95 |
| 242          | 14.95 | 242             | 14.95 |
| 243          | 14.95 | 243             | 14.95 |
| 244          | 14.95 | 244             | 14.95 |
| 245          | 14.95 | 245             | 14.95 |
| 246          | 14.95 | 246             | 14.95 |
| 247          | 14.95 | 247             | 14.95 |
| 248          | 14.95 | 248             | 14.95 |
| 249          | 14.95 | 249             | 14.95 |
| 250          | 14.95 | 250             | 14.95 |
| 251          | 14.95 | 251             | 14.95 |
| 252          | 14.95 | 252             | 14.95 |
| 253          | 14.95 | 253             | 14.95 |
| 254          | 14.95 | 254             | 14.95 |
| 255          | 14.95 | 255             | 14.95 |
| 256          | 14.95 | 256             | 14.95 |
| 257          | 14.95 | 257             | 14.95 |
| 258          | 14.95 | 258             | 14.95 |
| 259          | 14.95 | 259             | 14.95 |
| 260          | 14.95 | 260             | 14.95 |
| 261          | 14.95 | 261             | 14.95 |
| 262          | 14.95 | 262             | 14.95 |
| 263          | 14.95 | 263             | 14.95 |
| 264          | 14.95 | 264             | 14.95 |
| 265          | 14.95 | 265             | 14.95 |
| 266          | 14.95 | 266             | 14.95 |
| 267          | 14.95 | 267             | 14.95 |
| 268          | 14.95 | 268             | 14.95 |
| 269          | 14.95 | 269             | 14.95 |
| 270          | 14.95 | 270             | 14.95 |
| 271          | 14.95 | 271             | 14.95 |
| 272          | 14.95 | 272             | 14.95 |
| 273          | 14.95 | 273             | 14.95 |
| 274          | 14.95 | 274             | 14.95 |
| 275          | 14.95 | 275             | 14.95 |
| 276          | 14.95 | 276             | 14.95 |
| 277          | 14.95 | 277             | 14.95 |
| 278          | 14.95 | 278             | 14.95 |
| 279          | 14.95 | 279             | 14.95 |
| 280          | 14.95 | 280             | 14.95 |
| 281          | 14.95 | 281             | 14.95 |
| 282          | 14.95 | 282             | 14.95 |
| 283          | 14.95 | 283             | 14.95 |
| 284          | 14.95 | 284             | 14.95 |
| 285          | 14.95 | 285             | 14.95 |
| 286          | 14.95 | 286             | 14.95 |
| 287          | 14.95 | 287             | 14.95 |
| 288          | 14.95 | 288             | 14.95 |
| 289          | 14.95 | 289             | 14.95 |
| 290          | 14.95 | 290             | 14.95 |
| 291          | 14.95 | 291             | 14.95 |
| 292          | 14.95 | 292             | 14.95 |
| 293          | 14.95 | 293             | 14.95 |
| 294          | 14.95 | 294             | 14.95 |
| 295          | 14.95 | 295             | 14.95 |
| 296          | 14.95 | 296             | 14.95 |
| 297          | 14.95 | 297             | 14.95 |
| 298          | 14.95 | 298             | 14.95 |
| 299          | 14.95 | 299             | 14.95 |
| 300          | 14.95 | 300             | 14.95 |

### JOYSTICKS

|     |       |
|-----|-------|
| 301 | 14.95 |
| 302 | 14.95 |
| 303 | 14.95 |
| 304 | 14.95 |
| 305 | 14.95 |
| 306 | 14.95 |
| 307 | 14.95 |
| 308 | 14.95 |
| 309 | 14.95 |
| 310 | 14.95 |
| 311 | 14.95 |
| 312 | 14.95 |
| 313 | 14.95 |
| 314 | 14.95 |
| 315 | 14.95 |
| 316 | 14.95 |
| 317 | 14.95 |
| 318 | 14.95 |
| 319 | 14.95 |
| 320 | 14.95 |
| 321 | 14.95 |
| 322 | 14.95 |
| 323 | 14.95 |
| 324 | 14.95 |
| 325 | 14.95 |
| 326 | 14.95 |
| 327 | 14.95 |
| 328 | 14.95 |
| 329 | 14.95 |
| 330 | 14.95 |

### AMIGA HARDWARE

|     |       |
|-----|-------|
| 331 | 14.95 |
| 332 | 14.95 |
| 333 | 14.95 |
| 334 | 14.95 |
| 335 | 14.95 |
| 336 | 14.95 |
| 337 | 14.95 |
| 338 | 14.95 |
| 339 | 14.95 |
| 340 | 14.95 |
| 341 | 14.95 |
| 342 | 14.95 |
| 343 | 14.95 |
| 344 | 14.95 |
| 345 | 14.95 |
| 346 | 14.95 |
| 347 | 14.95 |
| 348 | 14.95 |
| 349 | 14.95 |
| 350 | 14.95 |
| 351 | 14.95 |
| 352 | 14.95 |
| 353 | 14.95 |
| 354 | 14.95 |
| 355 | 14.95 |
| 356 | 14.95 |
| 357 | 14.95 |
| 358 | 14.95 |
| 359 | 14.95 |
| 360 | 14.95 |

### AMIGA UTILITIES ETC

|     |       |
|-----|-------|
| 361 | 14.95 |
| 362 | 14.95 |
| 363 | 14.95 |
| 364 | 14.95 |
| 365 | 14.95 |
| 366 | 14.95 |
| 367 | 14.95 |
| 368 | 14.95 |
| 369 | 14.95 |
| 370 | 14.95 |
| 371 | 14.95 |
| 372 | 14.95 |
| 373 | 14.95 |
| 374 | 14.95 |
| 375 | 14.95 |
| 376 | 14.95 |
| 377 | 14.95 |
| 378 | 14.95 |
| 379 | 14.95 |
| 380 | 14.95 |

### COMMODORE 64 UTILITIES

|     |       |
|-----|-------|
| 381 | 14.95 |
| 382 | 14.95 |
| 383 | 14.95 |
| 384 | 14.95 |
| 385 | 14.95 |
| 386 | 14.95 |
| 387 | 14.95 |
| 388 | 14.95 |
| 389 | 14.95 |
| 390 | 14.95 |

### COM HARDWARE

|     |       |
|-----|-------|
| 391 | 14.95 |
| 392 | 14.95 |
| 393 | 14.95 |
| 394 | 14.95 |
| 395 | 14.95 |
| 396 | 14.95 |
| 397 | 14.95 |
| 398 | 14.95 |
| 399 | 14.95 |
| 400 | 14.95 |

## HEROES OF THE LANCE



# HACKATAK

**W**elcome to the regular new tips section, where you can find the latest games mapped, poked and pulled to bits by me, your tipsmaster, Kirby Baby. You may notice that some of the games featured in these pages are a wee bit old, but as I write the PC Show is only two days. Fear not folks

I'll be getting the latest software and hacking it to pieces so everyone's Hackatak will be BIG!!

### Samurai Warrior

Having trouble with your hanter? Simply type HIDEFISH on the high score table for infinite energy. West!

### Captain America

La la la la la America. If you want extra lives for this slightly (!) disappointing conversion keep pressing the bottom (Over!) button on the control panel and you'll receive another captain.

### Renegade III

Get to level two and then kill

yourself (or rather the renegade). When you have lost all your lives, you will be asked to restart the tape. Just press the space and level three will load. Well! never!

### Rambo III

Get another cheat (I'm too good to give lol). Type

RENGADE on the high-core table, press 1, 2 or 3 to start on any of the three levels.

## Dragon Ninja

When you lose all your lives on the fourth level, ignore the "victory tape" message, leave the tape playing and level five will load. You will have five lives and full time. Easy!

## Heroes of the Lance

Yes, this is a wee bit old, but as yet no other magazine has printed a complete solution, until now! Just follow the directions given, using the game's on-screen compass.

### LEVEL 1

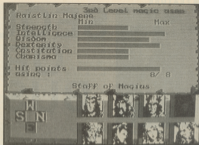
First, enter door (south). Walk south until you reach the sword. Enter door (east). Walk east. Enter door (north). Walk north. Enter door (west). Walk west. Enter door (north). Walk south. Enter door (east). Enter second door (west). Take sword then leave (north). Go back to first door and enter (west). Walk west and take the gold. Walk east. Enter door (south). Walk south and enter the round hole in the wall (west).

### LEVEL 2

Walk east. Enter door (south). Walk south. Enter door (east). Walk east. Fall off the gears and potions. Walk south. Take shield. Walk north. Enter door (west). Walk south. Enter door (west). This should take you to the waterfall and cure all your wounds. Walk south. Jump gap. Walk south. Take gold cup. Walk south. Enter second door (west).

### LEVEL 3

Walk south. Go past door. Walk south. Take potion. Walk north. Enter door (west). Walk south. Take shield. Enter door (west). Walk north. Enter door



Above: With all those characters I think we'll have a party!

(west). Walk north. Enter door (west).

### LEVEL 4

Jump gap (Hint, try over stepping the mark!). Walk west. Enter door (south). Walk north. This is a very hard screen, select Tash-half-Banfont. (Hint, when the arrows start to fly jump to get by). When you have passed the fire enter the door (south). Walk south. Enter door (east). Walk east. Enter door (north). Walk north. Enter door (west). Walk south. Take gold and silver cups. Take four potions. Take sword. Walk north. Enter door (west). Walk west. Take rings. Use rings. Walk east. Enter door (south). Enter door (east). Walk south. Enter door (west). Walk west. Enter door (south). Walk south. Enter door (west). Save the game here. Select Riverwind. Now jump the gaps, again, try over stepping the mark. When you have jumped all the gaps enter the door (east).

### LEVEL 5

Walk east. Enter door (south). Walk south. Enter door (east). Take coins. Walk west. Enter door

(south). Walk south. Enter door east. Walk east. Enter door (south). Enter 4th door. Walk east. Enter door (north). Walk north. Enter door (east). Walk east. Enter door (west). Walk east. Take potion. Walk east. Enter door (north). Walk north. Enter east. Walk east. Keep your eyes open for a round hole in the wall (this is the entrance to LEVEL 5).

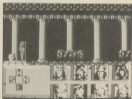
### The Dragon's Lair

As soon as you enter the lair hit the space bar. Select Goldmoon, and return to the game. You can only kill the

dragon by throwing the Staff of him. Just hold down the fire button and push the joystick diagonally up. When you have disposed of him run left avoiding the falling rocks and take the Disc's to finish the game.

Sorry people, that's all we have time for. Next month, when the PC Show is well and truly over, I'll have LOADS OF TIPS, so tune in for an action packed BACKTAK next month, or you may regret it, but now but soon and for the rest of your life!

### Kirk Baxter



Above: Go east, go east, CHOMP Er... go west, go west.



Above: Antonio Banderas, put your clothes back on this instant

# SEQUEL OR BUST!

**‘W**ho ya gonna call this time?’ ‘Now who ya gonna call?’ ‘They’re here to save the world again!’ ‘They’re back to save the world!’ The possibilities of cranking by-lines are seemingly endless. Yes, after five quiet years the Ghostbusters, instead of the world’s biggest-grossing comedy ever, are back. But for Columbia Pictures, eager for a box-office success to mop up the woe of 1979’s string of flops, it hasn’t been easy...

In 1982 Ivan Reitman (currently one of Hollywood’s hottest comedy producers after credits such as *Legal Eagles*, *Sorcerer*, *Stripes*, *Animal House* and *Tin Tin*) pulled together *Saturday Night Live*’s sig. Bill Murray, *Blues Brothers*’ maestro Dan Aykroyd, talented actor/writer/director/producer Harold Ramis and Academy Award-winning *Spaghetti Western* (with *Wagon* for a big-budget fall comedy about four psychic assassins) who start a rather jolly eccentric business, *Ghostbusters Inc.* The film, which cost twenty million dollars, so makes it to gross \$220 million, pretty nice, guaranteeing a sequel in one form or another, particularly in the light of *Hollywood*’s current obsession with *Kojak* sequels (*Friday*, *10th PART*), *A Nightmare on Elm Street* VI, *Batman* II, *White Hunter* II (being *Elmore*, the *Shogun*’s son), *Alvin* (with *David Schwimmer* and *Spagney* *Waring* already attached), *Spacely* III, *The Search for Spacely* II and *Star Wars* (after *Clone Wars*’ arrival in big pipelines). However after the worldwide success of the first paper’s success had died down, everything went quiet. For Columbia Pictures chief David Permut showed a noted lack of enthusiasm for *Ghostbusters* II, only to the point of considering making it with an all-star low-budget cast. Permut’s much-publicized squabble with sig. Bill Murray, the leader of the *Ghostbusters*, obviously didn’t help, and it wasn’t until late 1981, when Permut’s replacement, a Hollywood power player named David Niles, recalls it as “one of the last things we talked about” as his interview for the corporation’s presidency. Not surprising, since it was obviously crucial to the rising studio that the movie get made. Six flops in a row (1980) - including the anticipated smash success *Franchise* (with Tom Hanks and Sally Field), which grossed only \$21 million - left Columbia Pictures with a lot of problems, both in financial terms and in their box-office credibility stakes.

Despite the grand euro-five success of sequels to big movies, the sheer volume of genre movies on the summer market might just have left *Ghostbusters* II’ apparently profitable but not, ultimately, a massive hit. Studio boss Niles pulled the movie like the most important sequel in the history of Columbia Pictures and it’s easy to see why: it was a predictable but necessary evil for the corporation, one requiring a big investment and, therefore, a big risk. The film had got to be made. The formula had to be repeated. The cast and crew from the original movie had to be involved, but how were they all going to be got together?

The story of how it happened begins much like the plot of *Ghostbusters* II itself, in which the protagonists of the original have left bustling behind and gone back to some semblance of normal life. The same was true of most of the cast and crew from *Ghostbusters*. Murray had appeared in several

dramatic films (including 'Scrooged' in 1987) and had subsequently dropped out of sight; Aykroyd's 'Spies Like Us', 'Docteur Determ', 'Dragons' and 'The Couch Trip' were all awful; Ramis had written, directed and/or appeared in several teen movies, with some success; director Ivan Reitman was filming Schwarzenegger and DeVito (pipped to be Penguin in 'Batman II') in 'Twins'; female lead Weaver was enjoying critical success herself, earning Oscar nominations for 'Adams', 'Gorillas in the Mist' and 'Working Girl'. The man who brought them all together was none other than Michael Ovin, 'the King of Hollywood' (actually head of the famous Creative Artists Agency of Los Angeles).

What happened at their luncheon meeting in Ramis's (a Beverly Hills shophike restaurant) was the first step towards making 'Ghostbusters II'. As Murray recalls, "Walking into the meeting no-one really felt we'd make the movie. But in the course of lunch we had so many laughs and so much fun that it became clear we'd really enjoy working together again." A year of deal-making later, the sequel was rolling with virtually the entire cast of its predecessor, even down to the 'busters' long-suffering (not-necessary) played by Annie Potts) and accountant-man-attorney (Rick Moranis). The delectable Signourney Weaver reprises her role as Dana, Bill Murray's on-off girlfriend in the first movie, since when Dana has married, had a child and divorced and actually gets the group 'haunting' ghosts again when strange things start happening to her baby boy, Owen. She admits to being "a bit bewildered" by her comedian co-star, saying "It's like being put in a class with awful boys, who spend all their time throwing spitballs and dunking your heads into the tubwall. It's a streak of masochism for me. I just find it wonderful."

The film is being shot on a \$30 million budget, kept low by Murray, Aykroyd, Ramis and Reitman working for a profit-share wage rather than their customary up-front fee, an idea suggested by Reitman after testing it with Schwarzenegger and DeVito on 'Twins'. Dawn Steel is quoted as saying that 'Ghostbusters II' could have cost "close to \$80 million" had the stars taken their wages in advance. "We'd much rather pay a piece of the profits than huge salaries," she says. "That way we're saying 'take the risk with us. Then we're partners.'" Risk? Surely a sequel to a \$220 million movie isn't risky? "It's pretty scary," Steel admits, "because the Summer is so jammed with product." Indeed, 'Batman', 'Star Trek V' and 'Indiana Jones and the Last Crusade' were all vying for a piece of 'Ghostbusters II's' audience.

Ms Steel and the others involved in the film needn't have worried, as it turned out. 'Ghostbusters II' opened to a phenomenal audience reaction, standing all the box-office records 'Tomb III' had broken mere weeks before ('Batman' and 'Lethal Weapon 2' were to beat the records again only weeks later...) At the time of writing, nearly three months before it opens on this



Above: You shouldn't put into an electric socket.



Above: "Just blow into this, Mr. Painting - Bad guy."

Below: Ha, ho, ho, and a steaming ghost trap.





Right: "Are you sure we need all this protective gear to swim in the North Sea?"



side of the pond, "Ghostbusters II" has earned a cool \$190 million (which, statistics fans, is half the entire take of "Ghostbusters" in one weekend of the time), despite lukewarm reviews everywhere. Aykroyd and Raimi would again write the script, giving themselves the unenviable task of bringing the "busters" back with a fresh story. "None of us had ever done a sequel," Raimi says, "although we'd had offers on virtually every film we'd worked on. But then we started thinking if we could come up with a concept that seemed worthy, that really progressed us in some way, that had something new to say, then we'd do it." Aykroyd and Raimi, along with Reitman, "played with many different permutations of what happened to the Ghostbusters after the first movie, and we finally settled on something that would seem meaningful for all of us, and that's what we pursued."

The film opens with the four "busters" gone bad (sic), having been made to pay for the mess they made in the first movie. Peter Venkman (Murray) is hosting a psychic-phenomena cable-TV show called "Ward People"; Ray Stantz (Aykroyd) and Winston Zeddemore (Ernie Hudson) are reliving their Ghostbusting days at children's birthday parties; Egon Spengler (Rizzo) has



Right: "Do you always do it this way?"  
"No, it sometimes wear out!"

buried himself into his work, obsessed with his research into the effect of human behaviour on ectoplasmic slime. The script drags them back together for a battle against slime and spirits revived by negative human behaviour. To beat the spooks this time the team have to convince everyone in New York that they have to be nice to each other for forty-eight hours, otherwise the sticky stuff will take over the city. "The moral issue was important to us," says Harris. The final showdown takes place at - where else? - the Statue of Liberty, with 'Star Wars' effects wizard Industrial Light & Magic returning to provide the film with the ghosts and ghouls. Visual effects supervisor Dennis



Shawes: Get ahead of the statue of Liberty.

Moran was asked, among other things, to come up with a river of slime and spooks that were "interesting" in addition to being vaporous and flying around, the ghosts can change their shape easily as they move with a lot of what we call "squash and stretch." Sounds fun.

Yep, the Ghostbusters are back. A clever new symbol, some wicked-looking new proton packs, a brilliant theme song by Bobby Brown, every bit as catchy as Ray Parker Jr.'s 1984 smash title song, a slinky new dress for Ms. Wuore, a souped-up new Ecto-1 (the Ghostbusters' Cadillac-ambulance private transport) with dozens of roof-lights and new computerised signboards, 100,000 gallons of slime, plus a gringol villain in the form of Slimer all add up to make 'Ghostbusters II' every bit as much fun as the first picture. And there is no reason to suspect that this outing for the dynamic quartet will be the last, far from it: that 'Ghostbusters II' will go on to make even more money than 'Ghostbusters', Slimer in Columbia Pictures will be roasting again, and plastic proton packs will be appearing in toy stores all over, sending the merchandise manufacturers' dividends up as well.

Six, who ya gonna call? Your stockbroker.

# GHOSTBUSTERS II

## THE PREVIEW

Let us drift back. Back to when Activision UK was but a small branch of a large American company. Back to when Dave Cross was a top leisure programmer. Back to when Ghostbusting was all the craze.

Five years later, Columbia and Activision have done it again, but how can either of them hope to top the biggest grossing comedy of all time, and the best selling computer game? With

Ghostbusters 2, of course.

Over 2 million units have been sold since Ghostbusters came out, and quite rightly so. It had strategy, arcade action, and a lot of agency just added for good luck. But the market has changed, the consumers are now younger, and the computers have grown up. Ghostbusters 2 would just like to be the first. It could not have worked if there was too much strategy and not enough arcade quality. Thankfully it does

work, as it is a game suited for the 1990s.

It follows the film, plus closely, focusing in particular on the section where Dan Akroyd descends into the bowels of an eastern city, via the sewers. Along the sewer walls are several machines that try to sting, slice, and slice him, although he is well endowed with a photon pack of his very own. What being lowered down, you must vaporize the ghouls, although this has got to be done within a time limit.

Also within your backpack is an assortment of extras to aid you in your task.

The game is to be released in conjunction with the film, on the 1st December, and will appear on C64, and Amiga. A PC version is inevitable. If it proves half as successful as its predecessor, half will be lying in the Activision office (what say we're looking at the Christmas number one?)

## Large Stiff Cardboard Compo

To celebrate the launch of Ghostbusters 2, Activision are giving away a rather unique prize.

If you've ever been to the cinema and have dozed off over the large cardboard 3D cutouts that advertise movies, how big, YC's head.

You can win the Ghostbusters version of a cutout, which stands over 5 foot tall, if you answer three simple questions...

1. What is the name of Bill Murray's character in the movie?

- a) Peter Venkman
- b) Paul Protonman
- c) Cool Protonman

2. What is the name of the green, slinky ghost featured in both films?

- a) Blatter
- b) Slimer
- c) Harvey Proton

3. Who directed both films?

- a) Stephen Spielberg
- b) Ivan Reitman
- c) Jeffrey Archer

Send your entries on the 5th of a postcard (or sealed envelope) to:

Who ya gonna call compo, YC, Argus House, Boundary Way, Hemel Hempstead, HP2 7SE.

The closing date is 31st December 1989, and the first

correct entry pulled out of the hat will receive the compo.

(Airtelmail Compo Rules Apply!)





# C64 AMIGA C128



**1540 CH DISK DRIVE** £139.99  
 £139.99 plus p&p  
 5 1/4 DISK DRIVE FOR THE C64  
 NEW STYLE SLIMLINE CASE + P.S.U.

## AMIGA 500

- FREE PROTON PRINT
- FREE TV MODE LATOR
- FREE 8 STAR GAMER PACK
- 5.5 VERSION (INCLUDES MOUSE, WORKBOOK, INC VAT)
- I-J BUILT IN DISK DRIVE, DELIVERY 12/84



### PRINTERS

SENR LCR ..... £109.99  
 CITIZEN F900 ..... £109.99  
 PANASONIC  
 IC-1114 ..... £209.99

NEW BROWN  
 1988

### DISKS

16.5" DRIVE ..... £9.50  
 16.5" DRIVE ..... £9.50  
 5 DISK BOX 5.25" ..... £5.99  
 10 DISK BOX 5.25" ..... £9.99  
 20 DISK BOX 5.25" ..... £19.99  
 MOUSE W/ CDR ..... £4.50  
 MOUSE MAT ..... £4.50

**C64 NEW FOR AMIGA**  
 GREAT PASTASTIC PRICE  
 INCLUDING 16BIT GEM TO  
 GAMER, PAINT PACKAGE,  
 DATA RECORDER, GAMER  
 £49.99 + £2.00 P&P

NEW FOR AMIGA  
 GREAT PASTASTIC PRICE  
 INCLUDING DATA  
 RECORDER, SERVICE, 3  
 OLD GAMER + 3 NEW  
 GAMES, £49.99 + £2.00 P&P

04 DATA RECORDER £24.99  
 04 FORMER SUPPLY £19.99  
 SERVICE BONUS  
 VALUE ..... £5.00  
 CHANGE 15.00 SMALL  
 ITEM

**C.M.S. CROFTON MICRO SUPPLIES**  
 40 WHITEHEAD ROAD 01-469  
 BROCKLEY LONDON SE18 2BD 3246

## THINKING OF BUYING A NEW CAR? DON'T!

.....without consulting the



"Handy Little Booklet" is the essential reference  
 book for everyone buying a new car.

It lists the main car manufacturers alphabetically,  
 together with each car's current retail price,  
 insurance group, engine size, urban mpg, unladen  
 capacity, service/maintenance/repair costs -  
 based on 50,000 mileage - and tax bracket - for  
 company car drivers.

So before you invest thousands of pounds in a new  
 car invest just 60 in the "Handy Little Booklet" to  
 help you make the right choice.

To get your copy send £2 plus 25p extra for postage  
 and packaging to: Kim Cleary, Company Car,  
 International Trade Publications Ltd, Queensway  
 House, 3 Queensway, Redhill, Surrey RH1 1QS, or  
 telephone her on 071371 758811 for further details.  
 (Revised to 1988)

# Binders

Organise and protect your disk with  
 Commodore Disk User disk binders and  
 data disks.

Why not keep your Commodore Disk User program  
 collection alongside your magazines in a stylish Disk User disk  
 binder? The binder comes complete with 10 disk sleeves to  
 organise and protect your program disks. Why not buy a disk  
 binder to house all of your data disks? We can even supply  
 Commodore Disk User data disks. The Commodore Disk  
 User logo immediately identifies your disks and their's route  
 to rate them and documents the disks details.  
 Send for your disks and binders now!

Prices are as follows:

Commodore Disk User Binder (A15), including  
 10 sleeves. Order code **BDYU1**

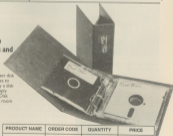
Commodore Disk User Binder with 10 sleeves and  
 10 disks. (A15) Order code **BDYU2**

10 sleeves for insertion in binder. (A15) Order code  
**BD50**

20 sleeves for inclusion in binder. (A15) Order code  
**BD510**

10 Commodore Disk User data disks. (A15) Order  
 code **BD010**

All orders should be sent to: YOUR COMMODORE, READERS SERVICES,  
 ARGUS SPECIALIST PUBLICATIONS, ARGUS HOUSE, BOUNDARY WAY,  
 HEMEL HEMPSTEAD HP2 7BT. Please allow 28 days for delivery.



| PRODUCT NAME               | ORDER CODE | QUANTITY | PRICE |
|----------------------------|------------|----------|-------|
|                            |            |          |       |
|                            |            |          |       |
|                            |            |          |       |
|                            |            |          |       |
|                            |            |          |       |
| Overseas postage add £1.00 |            |          |       |

TOTAL

# COMPUTER AUCTIONS



Above: "And the bid from the spiky gent in the corner is..."

When the Ed asked me to go to an auction I imagined *Christies* and *Saatchi's*, not some poky college hall at *Southgate College of Technology* in North London. Still, the journey wasn't too bad and I got there in good time. "Take some photos", he said so I lugged my camera along as well.

You can imagine the looks I got when I entered the steamy, overflowing hall. As I walked past, heads turned to regard this spectacle of a man with a camera as though I had three heads and a *Nixon*. I pushed my way through the horde of people until I could see what was happening at the front. Looking around the overfilled room, I saw people, more people and more people, and then a computer! And another, and a printer, a monitor, stacks of boxes and even more kit than I've got at home - rather a lot.

Advancing towards a smart looking *Sony LC-20* printer I brushed past a friendly chap who said that the auction was about to start in a minute or two and I had better get myself a catalogue. He waved a wodge of paper at me. I thanked him and struggled towards a seething mass of people congregated at the front of the hall. Joining a queue, a man with a mustache sat himself down on a chair on the stage, cleared his throat and spoke into a microphone. "The sale will start in five minutes. May I remind everyone that if you want to bid for anything in today's sale, you must register at the front," he pointed to the queue I was standing in.

At the front, I was given a card to fill in with my name and address.

Below: "Who will buy this second hand token now?"



just to make sure that if I bought something and then ran off without paying for it they could track me down. The top of the slip was torn off and handed to me. Scrambled on it was "JFF", my bidder number. "Are you taking photos for anything in particular?", a man in a red jersey asked as I requested a catalogue. I told him of my involvement with a certain computer magazine as I handed over £1 for the catalogue. As he noticed this he gave me the money back and told me to enjoy myself.

The crowds had now retired to a bundle of seats directly in front of the stage and the gangways along the sides were now more navigable. Looking around there were benches and more benches literally overflowing with computer bins and bins. Behind the seats were more rows of benches. On one sat various portable computers with odds and ends lying between, on another the odds and ends varied and complete machines were a minority. It soon became evident that there were not enough benches and equipment was beginning to spill over onto the floor. Still people swarmed around virtually everything, lifting it, shaking it, switching things on and trying them out. This kind of behaviour is encouraged by the auctioneers so that you know exactly what you are buying and what it works or not. You have to come back on the equipment, and everything is sold "as is".

10.00am and the sale began with lot one, a set of IBM guide to operations software. My initial reaction was, who the hell wants that, but it soon became apparent that quite a few people did. Lots two to ten were the same as lot one and by the time the last one was sold the price had dropped considerably. Next came three lots of IBM BASIC software which gathered little interest. The first 40 items in the sale were all software, and the first bit of hardware was a IBM AT compatible mouse - whooped! As I leaned against a wall, with no prospect of sitting down for a good two hours, I thought just how boring this experience could be. I scanned the 15 pages of the catalogue and discovered, to my horror, that there were 1285 lots on sale that day, with many additional on separate sheet which I picked up. In 30 minutes, just 30 odd lots had been sold and I was not looking forward to the prospect of staying for the rest of the day.

At the bottom of the first page were lots 65 to 804 which were a collection of various D-RAM chips. These came and went at ridiculously low prices considering the current value - nine 256K chips for just £28. Turning the page, I scanned down through the list of things and found myself ticking off items which I was interested in. "Lot 119 is a new Amstrad PC1640 system with 20MB hard drive and ECD monitor. Who will bid £800?" No takers. "1200" those sitting began to fidget but no bids were made. "1400" the auctioneer's voice took on that "vengy veng" tone. Getting fed up with the inactive audience he reduced the price to "£800". This time there was much murmuring and the buyers were obviously becoming interested. I heard someone close to me say "If it goes in £289 I'll have it." - me too I thought, and it did. "1200", the auctioneer was obviously becoming bored with this.

A hand shot high into the air, it was mine! Then someone close by raised his hand. "1250, do I see 1289" another hand rose and the bidding became fast and furious. I would have had better luck with an arcade coin-op. The system was finally sold for £425.

Lot 148 and a Star LC-19 printer. Bidding began at just £40 and rose to only £95. I bidded for this too, but considered £95 just a little too much for a while and gave it as the top. By the time lot 148 came up - a NEC P6-24-pin - I was in the swing of things and really beginning to enjoy myself.

At the end of the day I came home with 56 blank 3.5 inch discs, three cost just 25 pence, a telephone, Pains Organizer II, an Atari 8-bit cassette recorder - I only paid £3 for this - some printer ribbons and a steel under-desk keyboard shelf.

The auction I attended was organised by John Russell & Co. who are based in Croydon, Surrey. However, there are various other companies around the country who organise computer auctions, the more notable ones are listed below, others advertise in various journals. All items in the auction, unless stated otherwise in the catalogue, are subject to VAT which is added to your bill.

The auction turned out to be great fun, I came away wanting to go to the next one - so I'm off this Saturday to Maccles and to the next auction. I probably won't buy anything, but it's fun all the same. It's interesting to talk to different people, and many bidders are regulars as you can make new friends and enjoy your hobby that little bit more.

Andrew Baxter



Above: An abundance of goods for all to see.



Above, top, what a mighty fine floppy drive you have!

#### Auctioneers

**John Russell & Co.**  
Selkirk House  
14 Selkirk Road  
South Croydon  
CR2 6RF  
Tel: (081) 481 5413

**McD Computer Auctions**  
Unit 19  
Loth Court  
Daresell Industrial Estate  
Basingstoke  
RG2 0GU  
Tel: (0256) 818113

**Teardrop**  
Unit 1-8  
Mannor Works  
104 Waterway Road  
Broomsgrove  
Worcestershire  
B61 7AE  
Tel: (0527) 679618



# ACCOLADE

## ON THE HOME RUN

**A**ccolade and TC have teamed-up to bring you yet another chance to win loads of goodies. This is to celebrate the enormous amount of games to come our way from the company responsible for Test Drive and others.

Two lucky winners will receive an Accolade T-shirt, baseball cap and a rubber base miniature baseball bat. Ten runners-up will get a framed poster of a pretty girl to put on their bedroom ceiling.

All you have to do to be in with a chance of winning is answer the following three questions...

1. What is the name of the proposed to Hardball III?
2. What is the name of Accolade's best selling American football game?
3. Who is the major golf star currently sponsoring Accolade's Greatest 18 Holes of Major Championship Golf?

*Scrabble* (in legible handwriting) the answers on the back of a postcard (or sealed envelope) and send them, by 30th December, to:

*Amazing Accolade Contests, TC, Argus House, Boundary Way, Wood Hempstead, Essex SPS 7ST.*

### **The Slightly Deranged But Strictly Correct Rules**

Entries will not be accepted from employees of Argus Specialist Publications or Accolade. This restriction also applies to employees families, agents of the companies, and marions called Nige!

The entry restrictions form part of the rules and the Editor's decision is absolutely, with no room for argument or hobery (well, argument anyway!), final. No correspondence will be entered into, nor will dark alleyways lodging creepy crawlers. In the event of a solar eclipse, we reserve the right to use a piece of smoked glass.

**YOUR COMMODORE**

# PC ENGINE SERVICES

Southbank House, Black Prince Road, London SE1 7SJ.  
Tel: 01 587 1500 Fax: 01 735 5555

|                                  |        |                                      |       |                                   |       |
|----------------------------------|--------|--------------------------------------|-------|-----------------------------------|-------|
| PC Engine P&L (incl. 2 games)    | 155.00 | Origins                              | 25.00 | Alienated Heart                   | 25.00 |
| PC Engine Super (incl. 2 games)  | 155.00 | C-1 (Japan)                          | 25.00 | Super Thunderblade                | 25.00 |
| CD-ROM Unit (incl. PageOne 50.1) | 69.00  | Ricochet                             | 25.00 | Super Hammer 2                    | 25.00 |
| Page 50.00 P&L (incl. 1 game)    | 295.00 | Strain II                            | 25.00 | Acorn League Baseball             | 25.00 |
| Page 50.00 Super (incl. 1 game)  | 195.00 | Wings of Freedom                     | 25.00 | Thunderforce II                   | 21.00 |
| Nintendo Gameboy                 | 79.00  | Side Arms                            | 25.00 | World Cup Soccer                  | 21.00 |
|                                  |        | Outblast                             | 25.00 | Grids II Grids                    | 25.00 |
| <b>PC Engine Software</b>        |        | Naxos Open                           | 25.00 | Super Hang On                     | 19A   |
| Demander Master                  | 15.00  | Yaku                                 | 25.00 | Heavy Load                        | 19A   |
| Roadblock                        | 15.00  | Winning Shot                         | 25.00 | Paradise II                       | 19A   |
| Yaku of the Mountain Path        | 15.00  | Cyberzone                            | 25.00 |                                   |       |
| Chariot & Chariot                | 15.00  | Power Golf                           | 25.00 | <b>Multiple Language software</b> |       |
| Damage III                       | 17.00  | PinchPro Wrestling                   | 25.00 | Super Menusaid                    | 24.00 |
| Dragon Spirit                    | 19.00  | Monster Lair (CD-ROM)                | 22.00 | Ballistic                         | 25.00 |
| Robin Hood                       | 19.00  | Virus II                             | 22.00 | Tennis                            | 25.00 |
| Manxman                          | 19.00  | Fighting Street (CD-ROM)             | 22.00 | Tennis                            | 25.00 |
| Paradise Zone                    | 19.00  | Alienated Heart (CD-ROM)             | 22.00 | Johnny                            | 25.00 |
| Highway                          | 22.00  | Side Arms (CD-ROM)                   | 22.00 | Michi Michi                       | 25.00 |
| R-Type II                        | 22.00  | Super Demus (CD-ROM)                 | 22.00 | Microbots Maniac                  | 25.00 |
| Ricky Bus                        | 22.00  | Super Akabara (CD-ROM)               | 22.00 | Hyper Lockdown                    | 25.00 |
| Reactor                          | 22.00  |                                      |       | Legend of Discus                  | 24.00 |
| World Court Tennis               | 22.00  | <i>Also coming before Christmas:</i> |       | Ballistic                         | 24.00 |
| Legendary Ace 9.1 (V2.1)         | 22.00  | Mr. Hell                             | Not   | Football                          | 24.00 |
| World Court                      | 22.00  | Striker                              | 24.00 | Beach Volley                      | 24.00 |
| Bob Bob II                       | 22.00  | Ballman                              | 24.00 | Tennis with Goals                 | 24.00 |
| Water                            | 22.00  | Armed F.                             | 24.00 |                                   |       |
| Tiger Hat                        | 24.00  | Spitballs                            | 24.00 | <b>PC Engine accessories</b>      |       |
| Compass Explorer                 | 24.00  | Powergrip                            | 24.00 | Joystick 3D-1 (PS)                | 65.00 |
| First Last Tennis                | 24.00  | Viper Pistol                         | 24.00 | Joystick 3D-1 (ST)                | 25.00 |
| Alienated Heart                  | 24.00  | Kilotic, Mode P&L                    | 24.00 | Joystick 3D-1 (V)                 | 15.00 |
| Digital Champ                    | 25.00  | <b>Page 10 00 software</b>           |       | 4-player 800000                   | 15.00 |
| P&L                              | 25.00  | Mini Road                            | 24.00 | <b>Page 10 00 accessories</b>     |       |
| Stoody Wolf                      | 25.00  | Mr. Komatsu                          | 24.00 | Joystick 3D-1 (3)                 | 34.00 |
|                                  |        |                                      |       | Joystick                          | 14.00 |

ALL PRICES INCLUDE P&P. FOR SOFTWARE PLEASE ADD £1.00 P&P



## ESCROE ORDER HOTLINE 0277 200555

NEW LOWER PRICES ON FLOPPY DISKS  
UNBRANDED FULLY GUARANTEED. PRICE PER DISKETTE,  
COMPLETE WITH USER SETS.

| V.I. LIFETIME GUARANTEED CERTIFIED |      | 3" PARANONIC & BULK P                 |                    | 5" FLOPPY DISK 5 1/4"                    |       |
|------------------------------------|------|---------------------------------------|--------------------|------------------------------------------|-------|
| Double Sided/Double Density 80TPI  | 23   | Single Sided CP1 (Bulk)               | 1.20               | Single Sided/5 Sector                    | 1.30  |
| Double Sided/Double Density 80TPI  | 24   | Double Sided CP2 (Bulk)               | 1.40               | Double Sided/5 Sector                    | 1.50  |
| Double Sided/High Density 1.0m     | 33   | Double Sided CP3 (Paranonic)          | 1.54               |                                          |       |
|                                    |      | Double Sided CP1000 (Paranonic)       | 2.24               | <b>5 1/4" Hard Enclosed</b>              |       |
|                                    |      | Double Sided CP1 (Paranonic)          | 1.20               | Single Sided/5 Sector                    | 1.40  |
|                                    |      | Complete with labels                  |                    | Double Sided/5 Sector                    | 1.60  |
|                                    |      | CP1000 suitable for Amstrad 8810/810  |                    |                                          |       |
|                                    |      |                                       |                    | <b>CONSUMABLES ETC.</b>                  |       |
|                                    |      | <b>LABELS, SLIPES, WRITE PROTECTS</b> |                    | Printer Head Cleaner (Sheet)             | 4.00  |
|                                    |      | Printed as per (thousand) (1000)      |                    | Replacement set of Cleaner Taz           | 2.40  |
|                                    |      | 3" Labels                             | 5.80               | IBM Printer Cable                        | 3.00  |
|                                    |      | 5 1/4" Labels                         | 5.80               | Acorn Printer Cable                      | 3.00  |
|                                    |      | 5 1/4" Labels                         | 5.76               | Amiga Printer Cable                      | 3.00  |
|                                    |      | 5 1/4" Write Protects                 | 2.20               | BBC Printer Cable                        | 3.00  |
|                                    |      | 5 1/4" Slipsheets                     | 20.00              |                                          |       |
|                                    |      |                                       |                    | <b>4 YEAR MONTHLY SPECIAL OFFERS</b>     |       |
| <b>STORAGE BOXES</b>               |      | <b>CLEANING KIT</b>                   | <b>5 1/4" BULK</b> | 50 x 3 1/2" Double Sided PLUS 20 5 1/4"  | 25.00 |
| 8.8" Library Box - 10 Capacity     | 1.30 | 2" with Fluid                         | 4.70               | PLUS                                     | 25.00 |
| 3.5" or 5.25" Library Box 10-Cap   | 1.20 | 3 1/2" with Fluid                     | 1.70               | 100 x 3 1/2" Double Sided PLUS 20 5 1/4" | 25.00 |
| 3.5" or 5.25" Lockable 50/100-Cap  | 4.50 | 5 1/4" with Fluid                     | 1.70               | PLUS                                     | 25.00 |
| 3.5" or 5.25" Lockable 50/100-Cap  | 6.00 | 5 1/4" Dry                            | 1.70               | 20 x 2" Panasonic QFD-PL10 5 1/4"        | 25.00 |
| 5.25" Single Disk Case             | .50  | 8" with Fluid                         | 1.20               | PLUS                                     | 25.00 |
|                                    |      | 50/100                                | 1.70               | 20 x 2" Panasonic QFD-PL10 10 CP11       | 25.00 |
|                                    |      | 50/100                                |                    | PLUS                                     | 25.00 |
|                                    |      |                                       |                    | <b>ONLY WHILE STOCKS LAST</b>            |       |

Government, P.L.C. Corporate, Local Authority & Education orders welcomed. Payment with order to:  
**ESCROE PLC, Dept YC, Codham Hall Lane, Gt. Warley, Brentwood, Essex CM13 3JT.**  
Fax: 0277 200173



Minimum order value £25.00  
All above prices are ex-VAT & Delivery. Postage - £3.00. Courier - £10.00



maxell 3M Verbatim Syner XEROX BASF Fuji

# DON'T BELIEVE THE HYPE

**1** 989 started with the comic industry reeling from the success achieved by *The Watchmen* and *Dark Knight* and the world gearing itself up for the arrival of *BATMAN*.

Of course by this time you're all quite sick of reading about *Batman*/*Batgirl* and the great *Batyear* is general, but no roundup of last year would be complete without it. And, I'm afraid, a little something is in order before we get to know each other better.

Batyear was an exercise in damage limitation and image control rivaling Clinton's efforts post-Disaster Square. The message *Batman: A Cowboy* portrayed right to the depths of our consumer hearts. By August 11th, the only licensed image you could buy of a character fifty years old was those that came directly from Tim Burton's film. Firstly, *Robin* was killed off in a perfunctory link epic called *A Death In The Family* (DC), that grabbed world headlines. Fifty years of teen toon were buried in a bowl of commercial angst. "What are we gonna do with all these landlovers with Kobayashi them now?" cried more than one diehard DC user.

Warner insisted that anything that contradicted their desired 'W' need *Batman* should be withheld from the schedule; thus Grant Morrison's *Dare McKean's Arkham Asylum*, wherein the lunatics - the Joker, Two Face, the Penguin et al - take over, was pulled and contained, finally released when the video was safely in the corner shop. Alas, we shall never see Morrison's interpretation of *The Joker*, complete with witless, stockings and Madonna-like bougie - but forever in the demands of marketing and the usual *Los Angeles*



police. However, enough did escape the censors to make this the only Bat article worth having.

Finally, *Wasson* instructed by law suit and copyright that there were to be no images that contradicted the greater Warner way, i.e. anything that let you in on the fact that Batman was something over 5'3", and the Joker something less than 14 years.

And the movie? Who really cared that it was only a partial success (and a large part of that being Jack Nicholson) when everyone made such a killing?

### When the party's over

Rathpne did have one positive effect, along the way the message gradually became *Comics are Coming*. New comics for a new age. Some serious fun.

Pre-war publishers of 2000 AD were first off the mark with *Crisis*, but this was about as hip as *The Tin Machine* until the introduction of Milligan/McCarthy's *Elek*. As far as the UK went, the year really went in *Graveler* with its electric mix of girls, guns and kind hearts. The world's first dance comic, brought us *Teen Girl* and a host of original, young, characters that literally exploded off the page.

We might also have traced a little of the *Crisis Band Aids*, in Alan Moore and Neil Stinkiewicz's *through To Apple*, except this was a harrowing tale that couched the rest of American foreign policy in swimming pools of blood. Definitely a highlight of last year. As was the first part of Moore's *From Hell* serialized in the horror anthology *Tales* (Spider Baby Graphics) a scalpel-like examination of Ripper mythology.

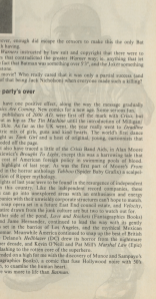
Other delights of last year were to be found in the resurgence of independent publishing in this country. Like the independent record companies, these independents can go into unexplored areas with an enthusiasm and energy that big companies with their unwieldy corporate structures can't hope to match. *Overdrive*, a soap opera set in a future East End council estate, and *Vibochy*, a wifering satire drawn from the junk culture art but too to watch out for.

On the other side of the pond, *Love and Rockets* (Fantagraphics Books) by Gilbert and Jaime Hernandez, continued to lead the way with its gently sensual soaps set in the barrios of Los Angeles, and the mythical Mexican village of Palomares. Meanwhile America continued to snag up the best of British talent; Jamie Delano's *McMillan* (DC) drew its horror from the nightmares of the Thatcher decade, and Kevin O'Neill and Pat Mill's *Marshall Law* (Epic) gave a final shaking to the rotten core of the superhero.

The year ended on a high note with the discovery of *Wince and Saurpaya's Jester* (Fantagraphics Books), a comic that took Hollywood noise with 50% of precision, to examine the human heart.

1989, there was more to life than Batman.

Shuart Green



**OFFICIAL COMMODORE FAMILY DEALER**

|                                                                         |          |
|-------------------------------------------------------------------------|----------|
| Commodore 128K                                                          | £299.00  |
| Commodore 128K + 1M Disk                                                | £349.00  |
| Commodore 128K + 2M Disk                                                | £399.00  |
| Commodore 128K + 4M Disk                                                | £449.00  |
| Commodore 128K + 8M Disk                                                | £499.00  |
| Commodore 128K + 16M Disk                                               | £549.00  |
| Commodore 128K + 32M Disk                                               | £599.00  |
| Commodore 128K + 64M Disk                                               | £649.00  |
| Commodore 128K + 128M Disk                                              | £699.00  |
| Commodore 128K + 256M Disk                                              | £749.00  |
| Commodore 128K + 512M Disk                                              | £799.00  |
| Commodore 128K + 1024M Disk                                             | £849.00  |
| Commodore 128K + 2048M Disk                                             | £899.00  |
| Commodore 128K + 4096M Disk                                             | £949.00  |
| Commodore 128K + 8192M Disk                                             | £999.00  |
| Commodore 128K + 16384M Disk                                            | £1049.00 |
| Commodore 128K + 32768M Disk                                            | £1099.00 |
| Commodore 128K + 65536M Disk                                            | £1149.00 |
| Commodore 128K + 131072M Disk                                           | £1199.00 |
| Commodore 128K + 262144M Disk                                           | £1249.00 |
| Commodore 128K + 524288M Disk                                           | £1299.00 |
| Commodore 128K + 1048576M Disk                                          | £1349.00 |
| Commodore 128K + 2097152M Disk                                          | £1399.00 |
| Commodore 128K + 4194304M Disk                                          | £1449.00 |
| Commodore 128K + 8388608M Disk                                          | £1499.00 |
| Commodore 128K + 16777216M Disk                                         | £1549.00 |
| Commodore 128K + 33554432M Disk                                         | £1599.00 |
| Commodore 128K + 67108864M Disk                                         | £1649.00 |
| Commodore 128K + 134217728M Disk                                        | £1699.00 |
| Commodore 128K + 268435456M Disk                                        | £1749.00 |
| Commodore 128K + 536870912M Disk                                        | £1799.00 |
| Commodore 128K + 1073741824M Disk                                       | £1849.00 |
| Commodore 128K + 2147483648M Disk                                       | £1899.00 |
| Commodore 128K + 4294967296M Disk                                       | £1949.00 |
| Commodore 128K + 8589934592M Disk                                       | £1999.00 |
| Commodore 128K + 17179869184M Disk                                      | £2049.00 |
| Commodore 128K + 34359738368M Disk                                      | £2099.00 |
| Commodore 128K + 68719476736M Disk                                      | £2149.00 |
| Commodore 128K + 137438953472M Disk                                     | £2199.00 |
| Commodore 128K + 274877906944M Disk                                     | £2249.00 |
| Commodore 128K + 549755813888M Disk                                     | £2299.00 |
| Commodore 128K + 1099511627776M Disk                                    | £2349.00 |
| Commodore 128K + 2199023255552M Disk                                    | £2399.00 |
| Commodore 128K + 4398046511104M Disk                                    | £2449.00 |
| Commodore 128K + 8796093022208M Disk                                    | £2499.00 |
| Commodore 128K + 17592186444416M Disk                                   | £2549.00 |
| Commodore 128K + 35184372888832M Disk                                   | £2599.00 |
| Commodore 128K + 70368745777664M Disk                                   | £2649.00 |
| Commodore 128K + 140737491555328M Disk                                  | £2699.00 |
| Commodore 128K + 281474983110656M Disk                                  | £2749.00 |
| Commodore 128K + 562949966221312M Disk                                  | £2799.00 |
| Commodore 128K + 1125899932442624M Disk                                 | £2849.00 |
| Commodore 128K + 2251799864885248M Disk                                 | £2899.00 |
| Commodore 128K + 4503599729770496M Disk                                 | £2949.00 |
| Commodore 128K + 9007199459540992M Disk                                 | £2999.00 |
| Commodore 128K + 18014398919081984M Disk                                | £3049.00 |
| Commodore 128K + 36028797838163968M Disk                                | £3099.00 |
| Commodore 128K + 72057595676327936M Disk                                | £3149.00 |
| Commodore 128K + 144115191352655872M Disk                               | £3199.00 |
| Commodore 128K + 288230382705311744M Disk                               | £3249.00 |
| Commodore 128K + 576460765410623488M Disk                               | £3299.00 |
| Commodore 128K + 1152921530821246976M Disk                              | £3349.00 |
| Commodore 128K + 2305843061642493952M Disk                              | £3399.00 |
| Commodore 128K + 4611686123284987904M Disk                              | £3449.00 |
| Commodore 128K + 9223372246569975808M Disk                              | £3499.00 |
| Commodore 128K + 18446744493139951616M Disk                             | £3549.00 |
| Commodore 128K + 36893488986279903232M Disk                             | £3599.00 |
| Commodore 128K + 73786977972559806464M Disk                             | £3649.00 |
| Commodore 128K + 147573955945119612928M Disk                            | £3699.00 |
| Commodore 128K + 295147911890239225856M Disk                            | £3749.00 |
| Commodore 128K + 590295823780478451712M Disk                            | £3799.00 |
| Commodore 128K + 1180591647560956903424M Disk                           | £3849.00 |
| Commodore 128K + 2361183295121913806848M Disk                           | £3899.00 |
| Commodore 128K + 4722366590243827613696M Disk                           | £3949.00 |
| Commodore 128K + 9444733180487655227392M Disk                           | £3999.00 |
| Commodore 128K + 18889466360975310454784M Disk                          | £4049.00 |
| Commodore 128K + 37778932721950620909568M Disk                          | £4099.00 |
| Commodore 128K + 75557865443901241819136M Disk                          | £4149.00 |
| Commodore 128K + 151115730887802483638272M Disk                         | £4199.00 |
| Commodore 128K + 302231461757604967276544M Disk                         | £4249.00 |
| Commodore 128K + 604462923515209934553088M Disk                         | £4299.00 |
| Commodore 128K + 1208925847030419869106176M Disk                        | £4349.00 |
| Commodore 128K + 2417851694060839738212352M Disk                        | £4399.00 |
| Commodore 128K + 4835703388121679476424704M Disk                        | £4449.00 |
| Commodore 128K + 9671406776243358952849408M Disk                        | £4499.00 |
| Commodore 128K + 19342813552486717905698816M Disk                       | £4549.00 |
| Commodore 128K + 38685627104973435811397632M Disk                       | £4599.00 |
| Commodore 128K + 77371254209946871622795264M Disk                       | £4649.00 |
| Commodore 128K + 154742508419893743645544512M Disk                      | £4699.00 |
| Commodore 128K + 309485016839787487291091024M Disk                      | £4749.00 |
| Commodore 128K + 618970033679574974582182048M Disk                      | £4799.00 |
| Commodore 128K + 1237940067359149949164644096M Disk                     | £4849.00 |
| Commodore 128K + 2475880134718299898329288192M Disk                     | £4899.00 |
| Commodore 128K + 4951760269436599796658576384M Disk                     | £4949.00 |
| Commodore 128K + 9903520538873199593317152768M Disk                     | £4999.00 |
| Commodore 128K + 19807041077746391186634305536M Disk                    | £5049.00 |
| Commodore 128K + 39614082155492782373268611072M Disk                    | £5099.00 |
| Commodore 128K + 79228164310985564746537222144M Disk                    | £5149.00 |
| Commodore 128K + 158456328619971129493074444288M Disk                   | £5199.00 |
| Commodore 128K + 316912657239942258986148888576M Disk                   | £5249.00 |
| Commodore 128K + 63382531447988451797229777776M Disk                    | £5299.00 |
| Commodore 128K + 126765062895976903584595555552M Disk                   | £5349.00 |
| Commodore 128K + 253530125791953807169191111104M Disk                   | £5399.00 |
| Commodore 128K + 507060251583907614338382222208M Disk                   | £5449.00 |
| Commodore 128K + 1014120503167815228676744444416M Disk                  | £5499.00 |
| Commodore 128K + 2028241006335630457353488888832M Disk                  | £5549.00 |
| Commodore 128K + 4056482012671260914706977777664M Disk                  | £5599.00 |
| Commodore 128K + 8112964025342521829413955555328M Disk                  | £5649.00 |
| Commodore 128K + 16225928486885043658827911110656M Disk                 | £5699.00 |
| Commodore 128K + 32451856973770087317655822221312M Disk                 | £5749.00 |
| Commodore 128K + 64903713947540174635311644442624M Disk                 | £5799.00 |
| Commodore 128K + 12980742789508034927062328889248M Disk                 | £5849.00 |
| Commodore 128K + 25961485579016069854124657778496M Disk                 | £5899.00 |
| Commodore 128K + 51922971158032139708249315556992M Disk                 | £5949.00 |
| Commodore 128K + 1038459423160642794164986311133984M Disk               | £5999.00 |
| Commodore 128K + 207691884632128558832997262267968M Disk                | £6049.00 |
| Commodore 128K + 415383769264257117665994524535936M Disk                | £6099.00 |
| Commodore 128K + 8307675385285142353319890490718784M Disk               | £6149.00 |
| Commodore 128K + 16615350770570284706639780981437696M Disk              | £6199.00 |
| Commodore 128K + 33230701541140569413279561962875392M Disk              | £6249.00 |
| Commodore 128K + 664614030822811388265591392575117888M Disk             | £6299.00 |
| Commodore 128K + 1329228061645622776531182785135375376M Disk            | £6349.00 |
| Commodore 128K + 2658456123291245553062365570270750752M Disk            | £6399.00 |
| Commodore 128K + 5316912246582491106124731340541501504M Disk            | £6449.00 |
| Commodore 128K + 10633824493164982212248462681083003008M Disk           | £6499.00 |
| Commodore 128K + 212676489863299644244969253621660601616M Disk          | £6549.00 |
| Commodore 128K + 425352979726599288489938507243212322304M Disk          | £6599.00 |
| Commodore 128K + 85070595945319857697987701446424644608M Disk           | £6649.00 |
| Commodore 128K + 1701411918906377153959754288928492921216M Disk         | £6699.00 |
| Commodore 128K + 3402823837812754307919508577856985842432M Disk         | £6749.00 |
| Commodore 128K + 6805647675625508615839017155713771684864M Disk         | £6799.00 |
| Commodore 128K + 13611295351251013231678034311435443369728M Disk        | £6849.00 |
| Commodore 128K + 27222590702502026463356068622870867359456M Disk        | £6899.00 |
| Commodore 128K + 54445181405004052926712137245741737189112M Disk        | £6949.00 |
| Commodore 128K + 108890362810008105853424274911484747578224M Disk       | £6999.00 |
| Commodore 128K + 217780725620016211706888849822889495556448M Disk       | £7049.00 |
| Commodore 128K + 4355614512400324234137777996457799111110896M Disk      | £7099.00 |
| Commodore 128K + 87112290248006484682755559929155982222217792M Disk     | £7149.00 |
| Commodore 128K + 174224584576012969365511119858311976444435584M Disk    | £7199.00 |
| Commodore 128K + 3484491691520259387310223971675392888871117168M Disk   | £7249.00 |
| Commodore 128K + 6968983383040518774620447943350785777443536M Disk      | £7299.00 |
| Commodore 128K + 13937966766081037549240958886701571554887071072M Disk  | £7349.00 |
| Commodore 128K + 27875933532162075098481917773403141111714144M Disk     | £7399.00 |
| Commodore 128K + 5575186706432415019696383554680622223428288M Disk      | £7449.00 |
| Commodore 128K + 11150373412864830039392767109612444468577776M Disk     | £7499.00 |
| Commodore 128K + 22300746825729660078785534219224889155555344M Disk     | £7549.00 |
| Commodore 128K + 44601493651459320157571068438449781111111088M Disk     | £7599.00 |
| Commodore 128K + 89202987302918640315142127686899422222221776M Disk     | £7649.00 |
| Commodore 128K + 178405946605837280622844253373798884444443552M Disk    | £7699.00 |
| Commodore 128K + 35681189321167456124568850674759777777770704M Disk     | £7749.00 |
| Commodore 128K + 713623786423349122531377109495195555555553408M Disk    | £7799.00 |
| Commodore 128K + 14272475728466982510627542189903111111111110716M Disk  | £7849.00 |
| Commodore 128K + 28544951456933965021255083779806222222222214352M Disk  | £7899.00 |
| Commodore 128K + 570899029138679300425101075596124444444443504M Disk    | £7949.00 |
| Commodore 128K + 11417980582733986008502021511922488915555553408M Disk  | £7999.00 |
| Commodore 128K + 2283596116467997201700404302384497811111111088M Disk   | £8049.00 |
| Commodore 128K + 45671922329359944034008086047699422222221776M Disk     | £8099.00 |
| Commodore 128K + 91343844658719888068016172095398844444443504M Disk     | £8149.00 |
| Commodore 128K + 182687693137739776136032344190798884444443504M Disk    | £8199.00 |
| Commodore 128K + 36537538627547955227206468338159777777770704M Disk     | £8249.00 |
| Commodore 128K + 73075077255095910454412936676319555555553408M Disk     | £8299.00 |
| Commodore 128K + 146150154510191820888825873238710949519555553408M Disk | £8349.00 |
| Commodore 128K + 29230030902038364177765174647759884444443504M Disk     | £8399.00 |
| Commodore 128K + 584600618040767283555303492955198884444443504M Disk    | £8449.00 |
| Commodore 128K + 116920123608153456711068585791198884444443504M Disk    | £8499.00 |
| Commodore 128K + 23384024721630691342221371835977777770704M Disk        | £8549.00 |
| Commodore 128K + 46768049443261382644442743671955555553408M Disk        | £8599.00 |
| Commodore 128K + 93536098886522765288885487343871094951955553408M Disk  | £8649.00 |
| Commodore 128K + 187072197773045530577770946769539884444443504M Disk    | £8699.00 |
| Commodore 128K + 37414439554609106115554189338959777770704M Disk        | £8749.00 |
| Commodore 128K + 7482887910921821222310777967791198884444443504M Disk   | £8799.00 |
| Commodore 128K + 1496577582184364244622135557583977770704M Disk         | £8849.00 |
| Commodore 128K + 29931551643687284894442711115977770704M Disk           | £8899.00 |
| Commodore 128K + 59863103287374569788885422231877770704M Disk           | £8949.00 |
| Commodore 128K + 119726206574749139577770946769539884444443504M Disk    | £8999.00 |
| Commodore 128K + 239452413149498279155541893389597770704M Disk          | £9049.00 |
| Commodore 128K + 4789048262989965583110777967791198884444443504M Disk   | £9099.00 |
| Commodore 128K + 957809652597993116622213555758397770704M Disk          | £9149.00 |
| Commodore 128K + 19156193051959863324442711115977770704M Disk           | £9199.00 |
| Commodore 128K + 38312386103919726648885422231877770704M Disk           | £9249.00 |
| Commodore 128K + 76624772207839453297770946769539884444443504M Disk     | £9299.00 |
| Commodore 128K + 153249544415678906595541893389597770704M Disk          | £9349.00 |
| Commodore 128K + 30649908883135781319110777967791198884444443504M Disk  | £9399.00 |
| Commodore 128K + 612998177662715626382213555758397770704M Disk          | £9449.00 |
| Commodore 128K + 12259963553254312527770946769539884444443504M Disk     | £9499.00 |
| Commodore 128K + 24519927106508625055541893389597770704M Disk           | £9549.00 |
| Commodore 128K + 490398542130172501110777967791198884444443504M Disk    | £9599.00 |
| Commodore 128K + 980797084260345                                        |          |



# DATTEL ELECTRONICS

THE ULTIMATE GRAPHICS PACKAGE...

SPECIAL OFFER PACK!



MOUSE ALSO GEOS COMPATIBLE



INCLUDES FREE MOUSE MAT/HOLDER WORTH £12.99



## COMMODORE 1351 MOUSE

COMPLETE WITH

OCP  
ADVANCED ART STUDIO™

- ▶ 1351 Mouse is a high resolution two button mouse featuring optical counting, teflon guides, microswitches, rubber coated ball and high quality interface.
- ▶ When combined with OCP Advanced Art Studio this graphics package is quite simply the best system available. The features are unmatched...
- ▶ Create an image - sketch it, repeat it, zoom it, rotate it, copy it, colour it new, etc.
- ▶ Spray patterns in shades, make chain lines - straight and wavy/curved shapes.
- ▶ Power to add detail to the work.
- ▶ Patterns from other sources for use at all.
- ▶ Move in graphics, plus pencil and eraser control.
- ▶ 21 pen, 8 spray, 31 rotation - in addition screen can create repeat graphics easily.
- ▶ Full set of 24 page facilities plus excellent picture support.
- ▶ Read with 'read' option - the screen image, used to compare the original with the screen image.

ONLY  
£34.99

TOTAL PACKAGE INCLUDES 1351 MOUSE, MOUSE MAT/HOLDER AND OCP ADVANCED ART STUDIO



ALSO GEOS COMPATIBLE

- ▶ The 1351 Mouse has two coloured cables - Black or Argenta, with the matching complementary mouse cable with the best fitting Geos version.
- ▶ Tough quality.



FREE!  
MOUSE MAT AND MOUSE HOLDER  
(WORTH £12.99)  
WITH EACH PACKAGE

ONLY WHILE STOCKS LAST

A TOTAL GRAPHICS PACKAGE

SAVE  
£40\*

\*NORMAL RET. PRICE £74.99

- ▶ NO OTHER GRAPHICS PACKAGE CAN OFFER SO MUCH AT SUCH A PRICE!
- ▶ OCP ADVANCED ART STUDIO ALONE NORMALLY RETAILS FOR £55.00! THE MOUSE HAS A NORMAL PRICE OF £60.00! NOW YOU CAN BUY BOTH FOR ONLY £34.99 AND GET A MOUSE MAT AND HOLDER (WORTH £12.99) ABSOLUTELY FREE!
- ▶ WE HAVE LIMITED NUMBERS OF THESE PACKS - SO BUY NOW!

WHAT THE MAGAZINES HAD TO SAY...

COMMODORE COMPUTING  
"CLASSIC"

C.T.W.  
"PIEK OF THE WEEK"

C.C.L.  
"BEST GRAPHIC PRODUCT OF THE YEAR"

ALL ORDERS FROM ANY COUNTRY ORDER WITHIN 48 HRS

## HOW TO ORDER ...

BY PHONE  
0782 744207  
order lines  
Card Ltd

BY POST  
Send cheques (P.O. order payable to 'Datatel Electronics')

FAK  
0782 744206

OR ORDER BY POST FROM  
STOCKS AND TO  
ORDERING UNIT AT

PLEASE ADD OVERSEAS POSTAGE AT TIME OF ORDER AND PLEASE TO ORDER BY POST

CHEQUES WELCOME - Please attach guide by telephone call to card

# DATTEL ELECTRONICS

DATTEL ELECTRONICS LTD., FENTON INDUSTRIAL ESTATE, COVARI ROAD, FENTON, STURON-ON-TRENT, ENGLAND.

SALES ONLY  
0782 744207

TECHNICAL ONLY  
0782 744206

■ FEATURE

# I WANNA ROCK WITH YOU



At the age of 12, Billy Bottom, swimming in a sea of stars.

**Rik Henderson, the man with an enormous wobbly dictaphone, visits Britain's latest tourist attraction, the Rock Circus**

**I**t was the boozing, you see, that ruined old Rik's career. But when we were going strong in the charts, the parties were fantastic. Bob was there, so was Jimi, and Janis made a short appearance before we were all locked up. You should have seen the papers, oh how we cheered.

Unfortunately the imagination can get somewhat wild, and scenes like this live only in the mind of a humble journal, like myself. Bob Marley, Janis Hendrix and Janis Joplin are sadly deceased, so to come face to face with them is something only Rikie and Haze could do. Rock Circus, however, exists to rectify this fact, and allows you to come within breathing distance of exact replicas of gone, but not forgotten, stars.

Situated in the heart of the West End, the venue, which opened its doors on the 7th August 1989, is part of the Thousands Group of tourist attractions (best known for their Madame Tussaud's and London Planetarium). And it is easy to see where the inspiration has stemmed from. It features many waxworks of the most famous of the rock stars, and could be likened to the Chamber of Horrors, with the genre being the major change.

Upon entrance visitors are supplied with headsets. These pieces of equipment allow wearers to hear only the sound coming from the area designated to a particular exhibit. This is done via infra red signals that are picked up by the headset and converted into sound. Unfortunately this provides one small problem which I discovered, if your headset is slightly off-line the beam will not be picked up, and therefore no sound will be heard. This is rectified by a small adjustment in head angle, so it's not a major worry.



Above and right: Jerry Lee Lewis and Art Garfunkel.



Above: Bob Marley, a true legend.

It would be nigh-on impossible to isolate every influential rock star from the 40s-90s, but Rock Circus has had specialist help from Paul Gambaccini in choosing the ones that would best represent the industry. Some of the stand-alone exhibits are very well thought-out indeed.

In the centre of the lower floor (there being three floors in total) there is a large revolving stage with Elton John, Stevie Wonder, and Little Richard, all playing pianos, and in the centre, at the end of the 7 minute show, appears Elvis Presley in all his splendor (with hamburger filled stomach and all). And all around the edges, and on the second floor, are smaller systems.

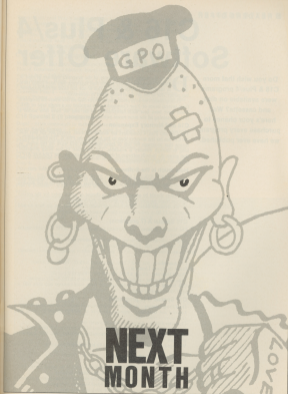
It is the final show that is definitely the most worth seeing as it is situated in the largest revolving theatre in Europe, and it features audio-anatomic figures (much like certain Group Editors). These are bionic figures that are controlled by a whopping great computer system. Unfortunately, although the show is very good indeed (especially when the volume on your headset is turned up to full blast), the bionic stars sometimes act in a way not too dissimilar to a Gerry Anderson creation. But all said and done, it is quite spooky to see models that move in time to music; and in an elaborate way too.

Not so much an education, not so much a feature of excitement, more a cross between the two, Rock Circus cost £10 million to erect and can be yours for a few hours for only £4.20 (£3.15 for children and concessions). Worthwhile, yes, revolutionary, probably?

The Rock Circus, London Pavilion, Piccadilly Circus, London (Opposite Eros).



Right: Elton John making a spectacle of himself.



# C16 & Plus/4 Software Offer

Do you wish that more  
C16 & Plus/4 programs  
were available on disk  
and cassette? Well  
here's your chance to  
purchase every program  
we have ever published.

**D**ue to the length and complexity of the programs that are printed in *Your Commodore*, many people find that once they have typed them in they do not work. Usually, this is not the fault of the magazine, but rather, due to the program being typed in incorrectly.

To help readers we do provide a *Software for Subscribers* where the programs from several issues of *Your Commodore* are supplied on a single tape or disk. There have been four such compilations so far and we have now added a fifth, containing all the most recent published programs.

## C16 and Memory Expansion

The C16 and Plus/4 computers are almost identical, except for the fact that the C16 has far less memory than its big brother, the Plus/4. This compatibility means that programs for one of these computers will work on the other, as long as enough memory is available. The exception to this being programs that access the in-built software of the Plus/4, for example, the *TRADRIVE* program on the C16C compilation.

## How much is the Software?

The price of the software is £3.00 for cassette and £7.00 for disk, this includes instructions. Orders should be sent to the address on the order form for *Readers Services*.

Orders should be accompanied by a cheque or postal order for the correct amount (made payable to *Argus Specialist Publications*).

We welcome orders from overseas readers. However, we do have to add a further £1.00 in order to cover the increased postal charges.

## C16 Special A (7 programs)

**The Master Returns** - an adventure set in the creepy world of Frankenstein's monster.

**Simple** - add icons, pull down menus and windows to your Plus/4.

**Disk Monitor** - talk directly to your disk drive.

**Change Your Character** - a C16 and Plus/4 editor to redesign your character sets.

**C16 Assembler** - put your C16 to serious use with this invaluable utility.

**Break the Speed Limit** - a high speed tape loader.

**Plus/4 Dumper** - obtain a hard copy of everything that you do.

**Tape Head Reader** - examine the storage routine with this handy routine.

**C16 Sound Sample** - sample a sound from your cassette and then edit it to produce amazing results.

## C16 Special B (6 programs)

**Dual Programming** - work with two programs in memory at the same time.

**Lower Case Graphics** - improve the look of your programs by using the alternative character set.

**Character Editor** - devise your own character set.

**Collotype** - challenge your Plus/4 to a hand of this popular pub card game.

**Spelling Checker** - avoid those embarrassing mistakes with this ingenious program.

**Word-pas Add-on** - improve the Plus/4's built-in word processor.

## C16 Special D (8 programs)

**C16 Sprites** - your C16 or Plus/4 sprites like those to be found on the C64. A demo routine is included to allow you just what is possible.

**Plus/4 Animator** - store a series of pictures in memory to create moving pictures.

**Rebound** - an excellent version of the latest breakout style game.

**Disk Menu** - find and load your disk programs with ease.

**Typeo** - turn your Plus/4 and printer into a powerful electronic typewriter.

**Plus/4 Assembler** - an excellent machine code assembler.

**Transcript** - owners of the Script Plus Cartridge can now convert their Plus/4 text files to work with this word processor.

**Plus/4 extended basic** - Add almost 40 new commands to the Basic on your Plus/4 or C16 with memory expansion.

### C16 Special D (9 programs)

**Money Plus/4** - organize your financial affairs with this superb program.

**Plus/4 Database** - a cassette based database for Plus/4 owners who don't want to buy a disk drive.

**Fruit Machine** - Blocks, nudges and a time limit make this a challenging game.

**Plus/4 Windows** - add IBM PC style windows to your programs.

**Convertive Plus/4** - converts your machine code to BASIC data statements.

**Share Printer** - catalogue your disks by printing the directory on the disk drive.

**Text88** - create 80 column displays on your Plus/4 screen.

### C16 Special E (9 programs)

**Goop!** - extra commands to make programming easier.

**Sprite Sprite System** - everything you need for those chaotic sprites enjoyed so much by the C64 users.

**PrintFX** - Special effect printing brought to your screens.

**Head For Home** - Excitement galore in this version of that popular game Ludo.

**Plus/4 Asterisk** - create commercial style auto-running programs on your Plus/4.

**Directory Editor** - customise your disk directories with ease.

**Naked** - put your creative talents to use and produce your own type faces.

**Help Screens** - all that important information at your finger tips.

**Plus/4 Utilities** - a trio of useful utilities that makes using your disk drive easier.

## ORDER FORM - PLEASE COMPLETE IN BLOCK CAPITALS

| NAME             | QTY | TAPE/DISK | ORDER CODE | PRICE |
|------------------|-----|-----------|------------|-------|
| C16 Special A    |     | TAPE      | YC16A      | £5.00 |
| C16 Special A    |     | DISK      | YD16A      | £7.00 |
| C16 Special B    |     | TAPE      | YC16B      | £5.00 |
| C16 Special B    |     | DISK      | YD16B      | £7.00 |
| C16 Special C    |     | TAPE      | YC16C      | £5.00 |
| C16 Special C    |     | DISK      | YD16C      | £7.00 |
| C16 Special D    |     | TAPE      | YC16D      | £5.00 |
| C16 Special D    |     | DISK      | YD16D      | £7.00 |
| C16 Special E    |     | TAPE      | YC16E      | £5.00 |
| C16 Special E    |     | DISK      | YD16E      | £7.00 |
| Overseas post £1 |     |           |            |       |
|                  |     |           | Total      |       |

NAME .....

ADDRESS .....

POSTCODE .....

I enclose a cheque/postal order for £..... made payable to ARGUS SPECIALIST PUBLICATIONS.

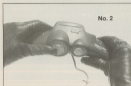
All orders should be sent to: YOUR COMMODORE, READERS SERVICES, ARGUS SPECIALIST PUBLICATIONS, ARGUS HOUSE, BOUNDARY WAY, HEMEL HEMPSTEAD, HP2 7SE.

Please allow 28 days for delivery.









No. 2

The Computer Industry Karma Suite

And it doesn't even require batteries



## Famous footballing megastar signs for computer magazine

A very famous soccer star has been transformed to a computer magazine in a sensational coup. Sources have not yet revealed who he is, or what magazine is involved, but we know that

it is in the position of Sales Executive.

By the way, YC has signed ex-Norwich city player Tony Flanagan as well!

# THE END IS NIGH

## In the Limelight

On Thursday 26th December, US Gold invited nigh on 700 journalists and industry notables to the Limelight Club in aid of their 5th Birthday. Rik Mayall was the guest of honour, and a mighty fancy one he was too. But the night was made by the stunning dancing skills of Susan 'Tivvita' Cooke.

Journalists gasped in awe as his incredible strutting moves wiped the floor clean (not last because he had ducters strapped to his feet). Dancers ogled as he spun in time to the music. Software Houses slanted as he raised his body into shapes only silly putty could imitate. Watch your neighbourhood dancefloor now, for the funky cat Cooke may be appearing near you soon.

## Press hard at work

At the recent PC Show, members of the press shocked many traders and companies by performing an act known as 'work'. After the five minutes were up though, it was a reassuring sight to see them huddled in the bar.

One of our sources revealed, "We didn't know

what had come over them. The Argus team suddenly descended upon us and demanded that we shut about 'business'. I can tell you now, I was extremely frightened!"

We must stress to traders that this is not common amongst magazine staff, and should not be assumed as representative of the industry.

## It's a wobbler too

Those who enjoyed the half page on page 57 in last month's YC, will be pleased to note that several other World-beating Wobblers missed their penalties too. I

really do not wish to be cruel by saying who, so I'll keep quiet for the sake of YC's advertisement manager and a certain publisher at Enap. It would be rather embarrassing if anybody found out!



IT'S A WOBBLER!



**W**ORLDBEATING YC EDITOR Wobbler the Soccer Star! It's actually possible that you also missed the absolutely huge obstacle in its waylisting which he ran into an Apple-wobbling wobbler leading much confusion until all were in luck!

For the advertising rates of YC, write the Wobblers Wobbling Football Team.

...it's dynamite!

# POWER CARTRIDGE

FOR YOUR COMMODORE

64/128

- ✓ POWER TOOLKIT
- ✓ POWER MONITOR
- ✓ TAPE & DISK TURBO
- ✓ PRINTER TOOL
- ✓ POWER RESET
- ✓ TOTAL BACKUP

IN STOCK  
FOR UK  
CUSTOMERS

TRIED  
AND TESTED  
— OVER 100,000  
SOLD IN EUROPE

AVAILABLE  
FROM ALL GOOD  
COMPUTER  
RETAILERS

TRADE AND  
EXPORT  
ENQUIRIES  
WELCOME

YOU WILL  
WONDER HOW YOU  
EVER MANAGED  
WITHOUT IT



ONLY  
**£14.99**  
incl. VAT

## POWER TOOLKIT

A powerful 16K16K Turbo (additional Turbo) cartridge that comprehensively optimises programming and debugging.

|           |             |              |
|-----------|-------------|--------------|
| 1610      | 16100C      | 161000C      |
| 16100     | 161000C     | 1610000C     |
| 161000    | 1610000C    | 16100000C    |
| 1610000   | 16100000C   | 161000000C   |
| 16100000  | 161000000C  | 1610000000C  |
| 161000000 | 1610000000C | 16100000000C |

Also available on the COMMODORANGE system. Allows you to program to the architecture of the hardware.

1611 Turbo 16K16K Turbo

The Turbo Cartridge can be used in your own programs.

## DISK TOOL

Using POWER CARTRIDGE you can load up to 16K bytes from disk. The Disk Cartridge can be used in your own programs.

|       |          |          |
|-------|----------|----------|
| Model | Capacity | Use      |
| Disk  | 16K/32K  | Diskette |

1612 Turbo 16K16K Turbo  
1613 Turbo 16K16K Turbo  
1614 Turbo 16K16K Turbo

## MY TOOL

Using My Tool CARTRIDGE you can write 64K to 128K bytes with your disk. My Tool Turbo Cartridge can be used in your own programs.

|       |      |          |
|-------|------|----------|
| Model | Size | Capacity |
| 1615  | 64K  | 128K     |

## POWERWAY

A powerful 16K16K Turbo cartridge that is available in both 16K and 32K versions. It is available in both 16K and 32K versions. It is available in both 16K and 32K versions.

|       |          |     |
|-------|----------|-----|
| Model | Capacity | Use |
| 1616  | 16K      | 16K |
| 1617  | 32K      | 32K |

|      |     |     |
|------|-----|-----|
| 1618 | 16K | 16K |
| 1619 | 32K | 32K |

## POWERWORK

The POWER CARTRIDGE contains a very advanced Turbo interface, designed to allow you to program to the hardware of your own system. It is available in both 16K and 32K versions. It is available in both 16K and 32K versions.

1610 Turbo 16K16K Turbo  
1611 Turbo 16K16K Turbo  
1612 Turbo 16K16K Turbo  
1613 Turbo 16K16K Turbo  
1614 Turbo 16K16K Turbo  
1615 Turbo 16K16K Turbo  
1616 Turbo 16K16K Turbo  
1617 Turbo 16K16K Turbo  
1618 Turbo 16K16K Turbo  
1619 Turbo 16K16K Turbo

1620 Turbo 16K16K Turbo  
1621 Turbo 16K16K Turbo  
1622 Turbo 16K16K Turbo  
1623 Turbo 16K16K Turbo

1624 Turbo 16K16K Turbo  
1625 Turbo 16K16K Turbo  
1626 Turbo 16K16K Turbo  
1627 Turbo 16K16K Turbo

1628 Turbo 16K16K Turbo  
1629 Turbo 16K16K Turbo  
1630 Turbo 16K16K Turbo  
1631 Turbo 16K16K Turbo

1632 Turbo 16K16K Turbo  
1633 Turbo 16K16K Turbo  
1634 Turbo 16K16K Turbo  
1635 Turbo 16K16K Turbo

## POWER RESET



The Power Reset cartridge is a simple device that allows you to reset your Commodore system. It is available in both 16K and 32K versions.

1636 Turbo 16K16K Turbo  
1637 Turbo 16K16K Turbo  
1638 Turbo 16K16K Turbo  
1639 Turbo 16K16K Turbo

1640 Turbo 16K16K Turbo  
1641 Turbo 16K16K Turbo  
1642 Turbo 16K16K Turbo  
1643 Turbo 16K16K Turbo

1644 Turbo 16K16K Turbo  
1645 Turbo 16K16K Turbo  
1646 Turbo 16K16K Turbo  
1647 Turbo 16K16K Turbo

# BOL

80 BIRCH ROAD  
GATESHEAD  
TYNE AND WEAR  
NE8 1NS  
ENGLAND

For 161-163 161 and 162 prices are £12.99 and £13.99. For 164-166 prices are £14.99, £15.99 and £16.99. For 167-169 prices are £17.99, £18.99 and £19.99. For 170-172 prices are £20.99, £21.99 and £22.99. For 173-175 prices are £23.99, £24.99 and £25.99. For 176-178 prices are £26.99, £27.99 and £28.99. For 179-181 prices are £29.99, £30.99 and £31.99. For 182-184 prices are £32.99, £33.99 and £34.99. For 185-187 prices are £35.99, £36.99 and £37.99. For 188-190 prices are £38.99, £39.99 and £40.99. For 191-193 prices are £41.99, £42.99 and £43.99. For 194-196 prices are £44.99, £45.99 and £46.99. For 197-199 prices are £47.99, £48.99 and £49.99. For 200-202 prices are £50.99, £51.99 and £52.99. For 203-205 prices are £53.99, £54.99 and £55.99. For 206-208 prices are £56.99, £57.99 and £58.99. For 209-211 prices are £59.99, £60.99 and £61.99. For 212-214 prices are £62.99, £63.99 and £64.99. For 215-217 prices are £65.99, £66.99 and £67.99. For 218-220 prices are £68.99, £69.99 and £70.99. For 221-223 prices are £71.99, £72.99 and £73.99. For 224-226 prices are £74.99, £75.99 and £76.99. For 227-229 prices are £77.99, £78.99 and £79.99. For 230-232 prices are £80.99, £81.99 and £82.99. For 233-235 prices are £83.99, £84.99 and £85.99. For 236-238 prices are £86.99, £87.99 and £88.99. For 239-241 prices are £89.99, £90.99 and £91.99. For 242-244 prices are £92.99, £93.99 and £94.99. For 245-247 prices are £95.99, £96.99 and £97.99. For 248-250 prices are £98.99, £99.99 and £100.99.

Bolton Devices Ltd

GUESS WHO'S COMING  
TO SAVE THE WORLD AGAIN?



 **ACTIVISION**