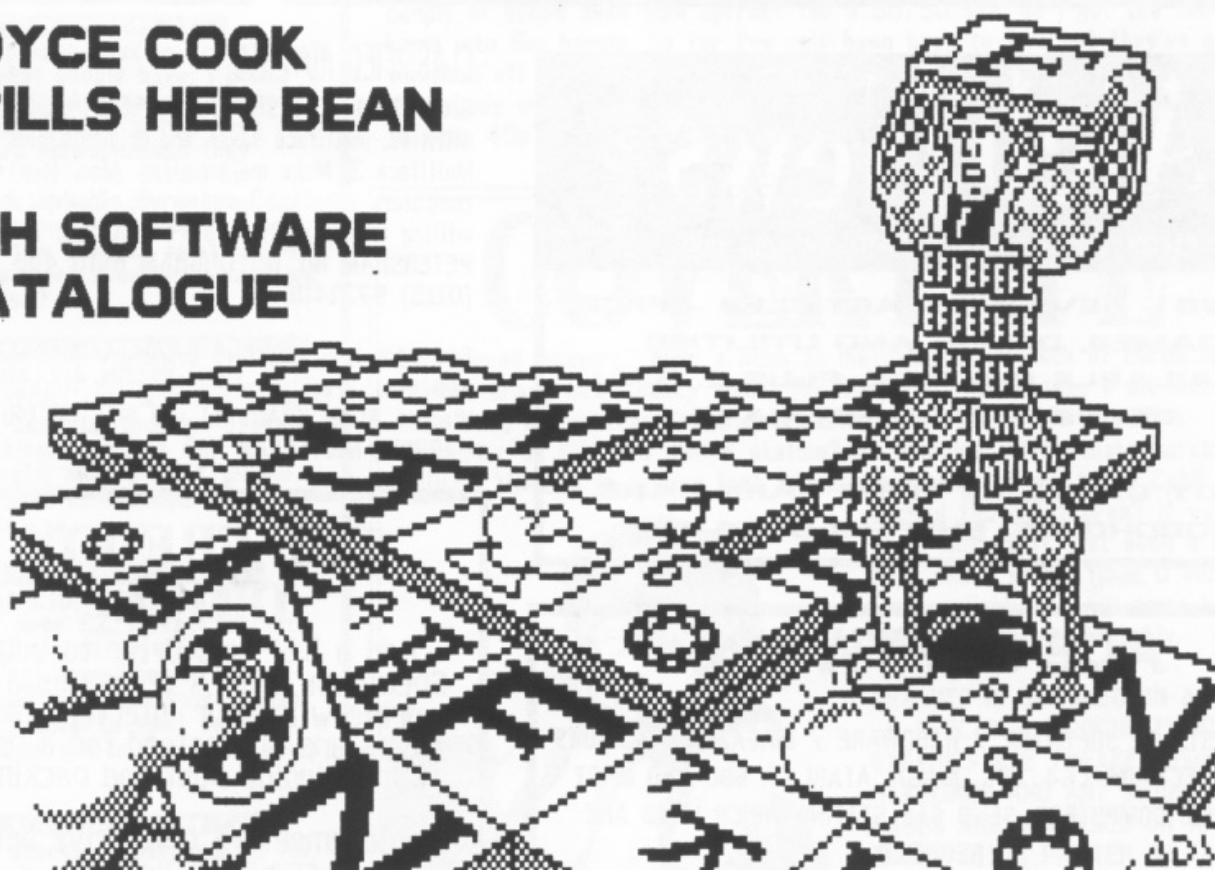# CRASHED

NEW SOFTWARE

NEW PD LIBRARY

ZLINCON 98 REPORT

JOYCE COOK SPILLS HER BEAN

D+H SOFTWARE CATALOGUE

Peking

The cheapo fanzine for the Sam Coupe and Spectrum computer inclined. Lo-fi frenzy.

DISCLAIMER

All views expressed in Crashed are views what people have, I blame the parents. Anyone who doesn't agree that people should have their own views, unless they bumlick their own, should be reminded that the European Court of Human Rights exists because sad old gits like you exist as well. See how much time and money we could save?

SUBSCRIPTIONS

Tough tits, you missed issue 23's special offer. The next five issues for £5, and that includes postage and packing. Cash and uncrossed blank postal orders ONLY please, the Crashed bank account is no longer in use.

ADVERTISING

Full page £10, half page £5, quarter page £2. Lineage adverts up to 50 words free (space permitting). Insertions in three issues will cost only twice those sums. All adverts must be pre-paid or get in touch for swap deals.

BACK ISSUES

Limited stocks of back issues for a £1 each or three issues for £2: 5,8,10,12,13,14,15,16,17,21,22,23. Sold out issues will only be reprinted due to a strange demand or if I win a photocopier in an 0898 Richard & Judy competition.

EDITORIAL

It's probably true to say that every magazine and fanzine you can buy in shops or via mail order has a target audience in mind. Since taking over Crashed, the target audience I would like to reach is that of the hands-on enthusiast, someone who still uses original 8 bit computers, hunts down original software second hand, someone who was once smitten by a Sinclair machine and who just can't seem to let go. We both have a disease, there is no cure, but we can all suffer together quite nicely.

Mark and Allen were both more Sam orientated than myself, consequently I rely on others to supply Coupe material. If you don't see any then that's down to me not receiving any. Subscribe to the dedicated Sam fanzines, you should be anyhow. This fanzine is not part aimed at the emulators, if you have moved into that medium then be on your way, it was always the case that progressive technology would kill us off, it started in the late eighties, you're just putting the boot in. Just lately I've waded through most of the web sites, most struck me as being all statistics and no passion. You can't sanitize a Spectrum within an artificial electronic world, it just doesn't work. A real one wasn't just for Christmas. Oh Ok then, it was really.

Good news time (for me anyhow), Crashed 23 is virtually sold out. I got off my fat spotty ass and hawked around a number of computer retro shops in London, an alarming number of which are springing up all over the place. A couple of shops even paid upfront for a 50/50 deal so I got the tube fair home into the bargin. So far I've only been back to two but they've all vanished off the shelf. With this in mind, this issues print run has doubled. If anybody wants to sell Crashed at computer fairs here or abroad, you get to keep 40p from each issue you manage to sell.

COVERTAPE

Got a good memory? have a bash at matching a full deck of cards in FISH, a brand new Speccy game. The DO-LITTLE demo, does a bit more than that, its another Crashed exclusive. Fancy being the signalbox controller at CHARING CROSS station? No worries. After that you can run FAULTY TOWERS in a rare text adventure game, will you touch Cybil around the toilet area? If you want this stuff just send a blank tape and a stamp (plus D version also available), it will come back within 48 hours. Probably.

CRASHED IS DESIGNED ON A 128k +D SPECTRUM RUNNING TYPELINER. GRAPHICS ARE TWEAKED USING HEADLINER AND ART STUDIO 128. PAGES ARE MASTERED ON AN EPSON LQ100 PRINTER. IN FACT, CRASHED IS AN 8 BIT FANZINE MADE EXCLUSIVELY ON AN 8 BIT COMPUTER USING 8 BIT SOFTWARE. WHAT WILL THEY THINK OF NEXT. TOFFEE CRISP ICE CREAM PLEASE.

THE NEWS

MALCOLM MACKENZIE 1946-1999

The SAM world was rocked this February when Malcolm Mackenzie, head of Persona Marketing & Development, died aged 52.

After Persona appeared on the scene in early 1996, Malcolm quickly became one of the most respected figures on the SAM scene. He was responsible for more SAM products in the following three years than any other software house - amongst them the Blitz diskzine, games like Ice Chicken and Bowen & The Count Dracula, and most recently the acclaimed Atom hard drive interface. He was also a constant presence at the Northern SAM & Spectrum Shows in Wetherby and Horwich, and will be sadly missed by all of us who knew him and benefitted from his boundless enthusiasm for the SAM. The NSSS on February 27th was cancelled as a mark of respect.

At the time of writing, it's unknown what will happen to Persona and Malcolm's related projects. The next issue of Blitz, however, will be a tribute to Malcolm, put together by David Ledbury and available for free download on the internet.

GREAT BIG SHOW

Brian Watson must have read last issue's piece on SAM and Spectrum shows. The first-ever 'All Formats' 8-bit computer convention to be held in the UK will take place between 10am and 4pm on Sunday 26th September this year at the Saddlers Club in Walsall. It's organized jointly by the Independent 8-Bit Association and Amstrad group Wacci, and promises to be a bit of a big bastard. Admission is by ticket only, and costs £2, for which you'll get to see lots and lots of hardware and software being demonstrated, meet lots of non-celebrities, and buy some, er, computer stuff from one of the many trade stands which will be there. It's not yet confirmed who will be there, but you can expect, at the very least, the usual SAM/Spectrum crowd - Alchemist, Format, EEC, Supplement and the rest, along with coverage for all the major 8-bits. Food facilities are nearby, and the bar will be open from 12 till 3.30 (pm, that is). For more information, write to UK8, Harrowden, 39 High Street, Sutton, ELY, Cambs, CB6 2RA or email uk8@spheroid.demon.co.uk.

GAVIN IT LARGE

Since the report in Crashed 22, Gavin Smith's SAM Community user group has undergone a couple of changes. The membership fee of £2 is now compulsory, for which you get a year's subscription to a bi-monthly newsletter, free access to the SAM Community File Library (basically a PD library) and, oh, lots of other things. The appearance of the first newsletter has been delayed by Gavin's moving house, but it should be out by the time you read this. To join, send £2 (cash or stamps) to SAM Community, Gavin Smith, 34 Craigowen Road, Carrickfergus, BT38 7NE.

GET IT CHEAP

Long running hardware suppliers, JRC Camera Repairs, are having a big clearout of all their Spectrum stock. Bargains to be had include brand new Spectrums (various models) from £35, green screen monitors (compatible with all 128K Speccies and the QL) for £25, lots of software from 50p, ZX and Alphacom printer rolls, 3" disks, Microdrives and cartridges, x-amount of stuff innit. Write to JRC at 2 Forge Cottage, High Street, Ewelme, Oxon, OX10 6HQ or ring (01491) 834 403.

SHOVE YOUR FINGER UP YOUR BUM AND SNIFF IT

Extacy 3, the best demo coders the UK ever spawned, have announced the imminent return of SUBLIMINAL EXTACY, the Tasword style adult orientated screenzine. The first issues were very well received all across Europe, even though they only got about half the jokes. The group, now know as RAWW ARSE, have spent the last year larking about on the IRC channels. They are seeking contributions for issue 3 so get in contact with them at: 14 DeVerose Court, Hanham, Bristol BS15 3SW. E-mail: l.a.esq@ethree.demon.co.uk.

PRISM PD GOES PRIVATE

Fat Barry from East Enders lookalike Martyn Sherwood, has announced that access to Prism PD will from 1999 onwards, only be open to club members. Membership costs £12.50. In real terms this means that if you want any free PD software you have to subscribe to PD Power to get anywhere near it, and then you are allowed up to 20 titles free per month. For people who don't want to spend £12.50 on PD Power, just PD software, looks like you're out of luck.

NEW PD LIBRARY STARTS

The Crashed Demo Library is now at your service. Aimed specifically as a spin off from Public Exposure, all the newest titles will be available as soon as they are released, plus over 800 past demos from 86-98, the largest known collection in the world. If there is anything else you need like general utilities or even games, then just ask and you'll be sorted from the biggest selection going. If there is a program you need we can supply it.

All programs are available on tape or +D with a promised 48 hour turnaround. Prices start at 5p per item. A dedicated Utilities and games library will follow later in the year.
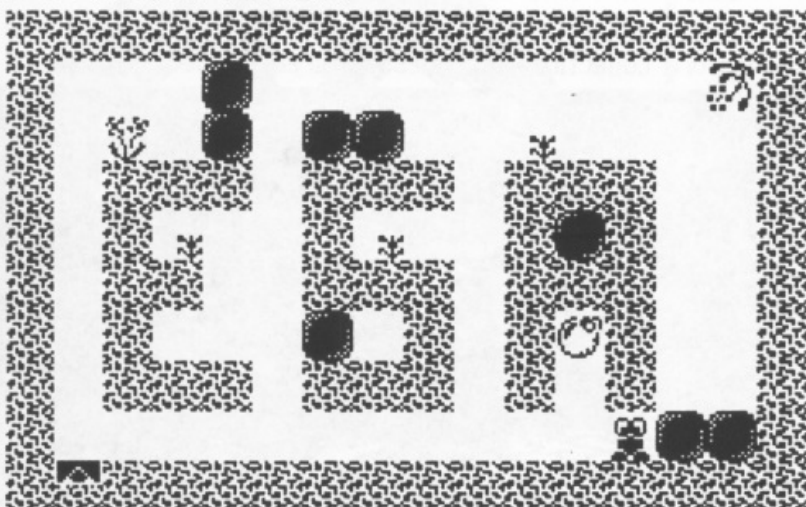
ACHTUNG SPITFIRE

For those of you allowed to own a passport, the two major Sam and Speccy convention dates in Germany have been announced.
SPC SHOW - 1st unt 2nd May in Monchengladbach.
SUC SHOW - 4th unt 5th Sep in Wittenberg.
It goes without saying that there will be more new hardware, software and blatant enthusiasm here than the UK meetings have greasy side partings.

software

BOOVIE 2
ESA SOFTWARE
Public Domain
Spectrum 48/128k

Yes it's a puzzle game, the sort of thing that would still set you back £20 on a Gameboy (minus the enevitable film tie-in licence thing). Get the white block onto the platform, in your way are irritating yellow blocks, bustable transparent blocks and restrictive alley ways; yer average push and shove head scratch-em-up then.

Average however for the tweaks... the newer features are very nice to have indeed, a magnet can be used to attract blocks out of the way and you also have an arsenal of bombs at your disposal, taking Boovie well inside Bomberman territory. As you might imagine the levels get progressively harder, so much so that during level 3 I legged it to the pub instead.

Not having a set time limit to worry about means you can sit back and study each screen rather than tear arse around the shop, getting stuck and overly frustrated. The sprite seems to be the bastard offspring of Captain Dynamo and Ms.Pacman, yep, a fat little git wearing a cape. With the eyes of a bushbaby and the gait of Giant Haystacks, he's not exactly built for all this running and shoving. Come on programmers, we want believable characters, like erm Posh Croft.

The only thing you have to worry about with sequels, is does it do it better? Well look at it this way, you've got a sackful of new levels to solve and two new weapons to help you out. This is a PD game so it's free. If you still want something new from this particular genre, well, you getting greedy innit.

Mr.Boovie has his target block stuck inside the letter A. Time for a twat large explosion. What is he staring at, better not be me. This is the demo level.
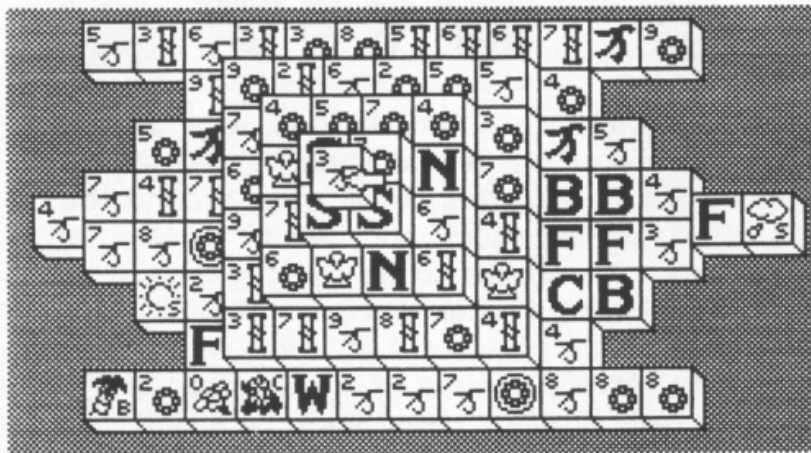
CRASHED RATING 3/5

+ SMASHING LITTLE GAME, WELL PROGRAMMED AND WORTH GETTING STUCK INTO.

- FINDING A PD LIBRARY THAT HAS IT OR EVEN KNOWS IT EXISTS. SHAPE UP YOU GUYS.

PEKING
DAVE SANDERS
SPECTRUM 48/128K

With the news that a customized version of Peking has surfaced with, how can I put this, an adult style graphic theme, I needed no other excuse to dust down the Spectrums greatest ever eater of time. It is however with great regret to announce that I have yet to get my hands on a copy. You know as sure as eggs are eggs that I will leave no stone unturned to get it onto the covertape at the first possible chance.

boasted almost 20,000 readers, and that meant twenty thousand copies of a game that would otherwise have only sold a projected 1500. Result. Future Publishing didn't pay that much cash for software, usually round about the £150-200 mark to individual programmers, but better than a poke in the eye with a shitty stick, you can't argue with that. New games on covermounts have to cope with consumer snobbery, it can't be that good if it's free can it?

A PlayStation Mah Jongg title has just been released called Shanghai True Valour (snigger), lots of different tile sets, music tracks, basic game variants and you'll only be £35 lighter in the pocket department. For the cost of a couple of second class stamps, you can get the Spectrum version from a PD library (well you should be able to!). The YS version has been hacked off the tape into normal Basic and code files so it can be archived and loaded into almost anything with no hassle whatsoever. I guess some twat has snapshotted it too, wasn't he clever readers.

You know the score, study the pile of tiles, match them up, clear the board, you can only match tiles on the end of the rows. There are four of each tile, 144 tiles in total, and I've cleared the board in 4'50". Simple and deadly. If you're not hooked after the first go then you know you've managed to scramble away to safety. Mister you're a better man than I.

Peking was lined up to be released on the Zeppelin label during 1992, but what with the winding down of the 8 bit market and Zeppelin themselves making even Mastertronic look cool, the Peek master was kept fed and watered until a new home could be found. All the remaining active software houses turned it down, and as a last resort, probably accompanied by a heavy Disney strength sigh, Dave sent the game to Future Publishing, home to the rugged Your Sinclair, for a bit of publicity.

This was not a silly thing to do, YS still

The bullshit still continues that Mah Jongg is an ancient oriental game of slanty eyed Toyota, it wasn't and isn't. It was first played in China during the 1880's then introduced to the West by a geezer called Babcock. I'm sure if it was a before Christ pastime, that boards and pieces would have been found alongside the odd samurai sword collection. You guessed already, not a sausage.

DOUBLE TOP
Supplement
Software
Price: £5
Sam Coupe

Despite a reasonable capacity for bacon sandwiches, I've never been quite able to develop the over-belt gut overhang required to play darts convincingly. I do, however, kick botty when it comes to the old Mastertronic Speccy darts sim 180. Everybody loves 180. And here is another one. Of it. But not as good.

After a decade of the SAM's existence, you'd think that the people who write games for it would have managed something more impressive than this by now. And they have - there's been a whole load of fantastic games released on the machine (most of which appeared at least five years ago, but that's neither here nor there), which makes this look all the more silly.

I can't think of much to say about it to be honest. For the benefit of those who haven't seen 180, you have to move a wobbly pointer across a dartboard and, er, play darts with it. You work your way through a series of computerised opponents (in the case of Double Top represented by some rather alarming digitised pics of 'Devestating' Dave Tonks and his mates) of increasing hardness till you reach the final. You also get little overhead animated sequences of your opponents, all of whom have the same funky side-parted hairstyle.

It's all competent enough, but the annoying thing about it (aside from the way it's about a million times more likely that you'll hit the wire in this version) is the fact that there are certain things in the 1985 Spectrum version that aren't in the 1998 SAM version. There's no music, no digitised speech, no jokes (not even of the most half-arsed variety) and, unlike 180, it just doesn't feel like a game that's had a lot of effort or care put into it.

CRASHED RATING 1/5

+ THE BEST DARTS SIM ON THE COUPE, PERM ANY ONE FROM ONE.

- WORTH BUYING, BUT ONLY IF YOU'RE MAD. THE OLDER SPECCY GAMES ARE BETTER.

A dart board yesterday, not the Double Top one, which could be better or worse, I haven't seen it yet. Run along now.

FISH
B.DOWSLAND
Public Domain
Spectrum 48/128k

FISH
THE WELL KNOWN CARD GAME OF MEMORY AND SKILL
by Bernadette Dowsland

Goes well with chips and some even said it went well with Mat Beal, you cannot beat a hot fish supper after an evening on the razzle. Fish is the proper name of that software beast also known as Pairs, Matching Pairs or USA Bumhole Crisis (an unreleased Codemasters gem). In this instance, Bernadette has used the internationally recognised deck of cards, pick any two - match the cards (any suit) and they vanish off the screen, get it wrong and you're back to square one, an on-screen reminder lets you know how crap you are. Memory and luck, that's the name of the game here.

Using the full deck, as this game does, you are faced with quite a task, there are 52 of the buggers hiding arse down. Other versions of this game type usually add more selections as you progress through the levels, and as an

expert at the match the naked ladies quiz machine in the Rose & Crown Greenwich, I know my fish from my elbow. This particular Fish shoves everything under your nose without the flowers or the chocolates, it is indeed the winky wanky before the woo... its a brute.

The Kempston mouse option is a welcome touch of flair. It's not a great looker, the graphics are merely functional, but if you have a memory like a Dalek, you can show off in front of the kids big style.

> **CRASHED RATING 2/5**
>
> **+ STRAIGHT FORWARD ADDICTIVE FUN FOR THE PHOTOGRAPHIC MEMORY OWNERS AMOUNGST US.**
>
> **- NOT VERY PRETTY AND IT'S TOO HARD.**

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EUROSCENE

THE ZLINCON 98 MEETING - CZECH REPUBLIC

Report by Thomas Erbele at SINTECH, Gastaeckerstr. 23, 70794
Filderstadt, Germany. E-mail: sintech@online.de

As we are always short on time, we had already missed Zlincon 97 and Doxycon 98, but now we drive through Nurnberg, Plsen, Prague and Brno, to our quarter in Nivnice, about 20km from Zlin. We met some friends from Germany and Austria, and also Omega, for some talks and drinks.

The directions we had to Zlincon were inadequate, but with the help of Omega and a mobile phone, we found the show. The meeting did not take place in a pub as advertised but a grade school. When we arrived we first thought there would not be many users as there were no cars in front of the building, but soon found out most had come by train. A whole classroom became filled with Speccies, users and smashing sounds. I set up in the lobby and could hardly set up my stall of originals such was the demand!

There was about 50 users, half with Didaktiks (clone) and half original Spectrums with MB02 disc systems. Organizers 8 Bit Company had on show an absolute novelty, the IDE Interface. It will be finally possible, after many have tried and failed, to connect hard drives and CD Rom devices. We admired a super Star Wars animation loaded from hard drive, we believed almost we were looking at a film. You can imagine perhaps how breathtaking it was to see - the pictures are stored in the new Multitech format. We were also showed the CD Rom possibilities, some files were loaded from a compact disc, and also the Spectrum controlled the playing of music CD's.

A Dos does not yet exist, and we asked when the thing would be ready for the market place. What 8 Bit Company prepares, it does so on the hobby basis, everyone must still earn their bread in other ways. The hardware is ready, the software is being written by the famous Busysoft. He will install the IDE Dos in the new BS Dos 400 for the MB02 disc interface.

Busysoft himself gave a small speech on the possibilities of the IDE interface. I could get no one to make any promises over price or release dates, but the people here and some others elsewhere are very keen on the whole idea. We will accept reservations as soon as we have a price calculation. Any news you can get at Sintech as soon as it is published.

I decided to get a ULA corrector built into my Speccy so I can view the new Russian programs like Worms without the 'snow'. It cost 50DM, and if anybody wants it fitted to their Spectrum, I can take it along to my next Czech Republic visit.

I learned that the 8 Bit Company fanzine 'Your Spectrum' is not the only Speccy magazine, there is 'ZX Magazine', a hobby version of a past professional title, and 'X Magazine', a discmag that I think is only for Didaktik disc format. The mood of the show remained good and some stayed the whole night. German demo groups are still relatively unknown here, and titles from Unbelievables and Mad Guys were greatly enjoyed.

The next day went all too quickly, and I didn't even have the time to copy things that had caught my eye the evening before. There were some crazy games and demos there all on Didaktik format. The MB02 Didaktik emulator is absolutely brilliant, also emulating the loading routines in machine code, as I had noticed when loading some demos.

It was well worth the trip, some 900km in all, to see some interesting new sotware and the great new interface, also my Spectrum got a further advantage with the ULA correction. The most important thing however, was to see all these great Spectrum freaks. Too bad that every meeting has to come to an end, and this came too fast that I could not include everything I wanted to do.

In the summer there will be another Doxycon and the winter surely also another Zlincon. If I can manage it I will be there once again, and hopefully some of you readers too. If not, maybe you can attend other Spectrum shows, e.g. here in Germany like Gladbach, Wittenberg and Filderstadt. Keep the Spectrum alive.

THE CRASHED INTERVIEW JOYCE COOK

There can't be many of us that didn't join SPECTRUM SOFTWARE HIRE, it was a great idea for a start, and became very important later on when Spectrum games vanished off the shelves at Boots. Now working for a childrens cancer charity, Joyce spilled the beans. Interrogated by D.Fountain.

WHEN DID YOU FIRST GET INVOLVED WITH THE HIRE LIBRARY?

I had a lock-up shop at the entrance to the local market in Trowbridge. I sold cosmetics, toiletries and household goods, bowls, buckets etc. The whole building was sold to property developers who knocked part of it down, rebuilt it, put the rent up to three times the previous amount and insisted that everyone had to be open 6 days a week instead of three as before. So I looked round for something to do at home and noticed Margaret Hills advert for someone to take over her Spectrum hire service.

WHEN WAS THAT?

This was June 91. I'd never seen a computer before but soon learnt. I expanded the titles and added a disk section, so the space available in the house, which is quite small, became very cramped. Then I added Amiga titles to the hire service and things became impossible.

SO YOU BOUGHT A BIGGER HOUSE...

We found a small shopping mall at the edge of town where there was an empty shop which the owners agreed to let us use as storage. Then people kept asking if they could buy the games on the shelves so we started opening for a few hours each day. Then the customers wanted other formats like Atari, Megadrive, Nintendo, PC, so we bought and sold second hand and progressed into buying and selling harware as well. We also did some new hardware and software.

SO THERE YOU WERE, WHEELING AND DEALING, BRINGING HAPINESS TO THE WORLD, WHAT HAPPENED?

History repeated itself and the owners decided to turn the building into a block of flats. There wasn't anywhere suitable to move to at a resonable rent so we sold off the stock.

THE HIRE LIBRARY WENT WITH IT?

By this time I felt that most people had all the Speccy titles or could buy them for a few pence at boot sales and now was a good time to end SSH. So as you know, I donated everything to the museum of the Moving Image.

I IMAGINE YOU HAD A FAIR FEW CUSTOMERS ON YOUR BOOKS

It depended to a certain extent on new members joining all the time as people would move on to another format, usually PC, or give up computing altogether. There are 5000 names in the archives but they weren't all active at the same time. People came and went and often became active after 2 or 3 years silence.

DID ANY SOFTWARE HOUSES GET THE HUMP WITH YOUR LIBRARY AND WHAT YOU WERE DOING?

I never had any complaints about SSH from any software houses. It was a good way of trying out titles before buying them.

I ONLY ASK THAT BECAUSE ON MOST GAMES I'VE GOT IT SAYS NO UNAUTHORISED HIRING OR LENDING. WAS IT HARD WORK OR A LABOUR OF LOVE?

I made a reasonable profit from the service but I did find that some members wanted to write to me and replying took up quite a bit of time.

DID YOU SEND THE HEAVIES IN WHEN PEOPLE DIDN'T RETURN THE GAMES?

I didn't lose too many in the post or otherwise, although inevitably some went astray for various reasons. I tried to keep as many copies as possible of each title so that the missing ones didn't leave too many gaps in the catalogue. I was often able to replace them from members too.

YOU ARE STILL PRETTY ACTIVE ON THE SCENE THOUGH. WHAT MAKES JOYCE GET UP IN THE MORNING AND NOT IGNORE ANY SPECCY STUFF?

There was contact with lots of interesting people and to my suprise this is still continuing. I asusmed I was finished with the Spectrum apart from helping Michael Bruhn so he could buy things in the UK without paying through the nose for cheques in sterling. Then Michael decided to start a Speccy mag, then I went to the Gloucester show as a reporter, then he had printer trouble so I offered to print the first issue... now he wants help with the second issue. So I really didn't make any positive effort to stay on the scene, it just happened. There are a lot of Speccy people on the internet, I have 'met' quite a few people I didn't know before and I really enjoy using the e-mail system.

WHAT HAPPENED TO THAT 8 BIT ORGANIZATION THAT HAD LOTS OF COMMITEE MEMBERS BUT NEVER ACTUALLY DID ANYTHING?

I don't know what happened to the silent organization. Brian Watson says it's still in existance but I don't hear of any activity from it. Brian also says there are plans to hold an 8-bit show in the middle of the year - in the middle of the country too I hope.

WHAT ABOUT THE MODERN SOFTWARE HIRE BUSINESS, YOUR APPROACH WOULD BE A LOT NICER THAN BLOCKBUSTER.

I've no plans to go back into the hire service again. I work part time for CLIC in Trowbridge, I do some voluntary work for them too. I'm also studying music theory, harmony and history at Bristol University. I've got homework to do, the dog to walk, two Siamese cats who like to be sick in unfortunate places, a husband who makes dirty washing and likes to eat. If I have a weekend off I spend it chugging up the M4 to London so I can take the aged parent shopping. We'll all be crying in a minute.

YOU HAVE A REMARKABLE HATRED OF FOOTBALL, WERE YOU HIT BY A BALL AS A YOUNGSTER?

What's football? Never heard of it. I would like to see a nice picture of Robbie Williams in the next issue of Crashed.

THE REV.ROBERT WILLIAM, YESTERDAY.

Hosted by the Car Boot Cowson, Professor Ukyorsev

This month I shall be focusing on the champions of the flashing Please Wait message, D+H Software, and their budget forearm, Cult Software. Always guaranteed 40% ratings in Your Sinclair, D+H excelled at the extreme end of the software market, the number crunching statistical managerial genre. The screaming starts...

Where are they now? I'm hoping against hope itself that they are still out there somewhere, teasing the PC world with the latest josstick simulator (choose from over 30 aromas plus an editor to create your own from scratch.) Artist Shaun McClure has been tracked down, he's currently head artist at Gremlin Interactive. Take a good long look at the cover of **FOOTBALL CHAMPIONS (1990)** see the flowing lines of a professional footballer just about to launch a toe poke cross into the six yard box, his moustache sending 622 female fans into sexual abandon. Hang on a minute, a moustache? Either Shaun was a rampant homosexual or had a hero worship thing with John Wark, footballers don't entertain the old facial hair thing. Maybe he wasn't too hot at drawing faces.

All the major 8 bits were catered for, some having exclusive titles over other systems - the C64 could rejoice in having the Scottish leagues to play with whilst we could only cry into our soup. East Fife 4 Forfar 5 would be something we could never behold. The Sam Coupe was given the chance on **FOOTBALL DIRECTOR 2**, judging by the sales they really shouldn't have bothered. D+H also dipped their toes into the 16 bit market, and from there the story clouds over. It's hard to imagine these people now working in McDonalds, they are bound to be doing something obscure somewhere.

Collect the set, laugh at the covers, tick them off as you go. Who could resist betting on the greyhounds, running your own software house or instructing Barry Sheene to come in for tyres.

BANGER RACER - Supersprint clone
BOXING MANAGER - Sport management
BOXING MANAGER 2 - Sport management
BRITISH SUPER LEAGUE - Football management
CHAMPIONSHIP GOLF - Sport management
COUNTY CRICKET - Sport management
CRICKET CAPTAIN - Sport management
CUP FOOTBALL - Football management
FIRST PAST THE POST - Gambling sim
FOOTBALL CHAMPIONS - Football management
FOOTBALL DIRECTOR - Football management
FOOTBALL DIRECTOR 2 - Football management
FOOTBALL DIRECTOR 2 PLAYER - Football management
FOOTBALL DIRECTOR RECORDS FILE - Database
GRAND PRIX - Sport management
INTERNATIONAL FOOTBALL - Football management
KEMSHU - Puzzle game
LEAGUE FOOTBALL - Football management
MOTORCYCLE 500 - Sport management
MULTI PLAYER SOCCER MANAGER - Football management
ON THE BENCH - Football management
PROFESSIONAL FOOTBALLER - Football management
RUGBY COACH - Sport management
SNOOKER MANAGEMENT - Sport management
SOCCER 7 - Football management
SOCCER Q - Quiz game
SOCCER RIVALS - Football management
SOCCER STAR - Football management
SOFTWARE HOUSE - Business sim
STRIKER - Football management
STRIKER MANAGER - Football management
THE BOXER - Sport management
THE DAMNED FOREST - Text adventure
THE FOOTBALLER - Football management
THE MATCH - Football management
THE NATIONAL - Gambling sim
THE REALM - Text adventure
WEMBLEY GREYHOUNDS - Gambling sim
WORLD CUP - Football management

I'm going to lay my musty old cards on the table right from the off, they have gone very brown; Wec Le Mans is the greatest car racing game on the Spectrum. It has to be said that coaxing a great racing game out of an 8 bit computer was always going to be a task in itself. The essence of a race is generally one of pulsating speed, it's also a situation where you find yourself up against any number of opponents all probably going faster than you. This in itself is enough to make any 8 bit chip shit itself to pieces. Even with a reduced screen area to update, without colour attributes to worry about, the Spectrum is not the ideal host for an exciting race scenario. So far we may be in agreement.

All the above points are what makes Wec Le Mans so remarkable. Even though it was the background that was moving as opposed to the car sprites, there is a hell of a lot of zippy hoo-ha going on. On top of this (I'm starting to sweat profusely) Wec has the most amazing engine growl in the 128k version. I've played most car racey games on a PlayStation, and you wouldn't believe the weedy electronic whine some of those try to pass off as a V12 throbbing at full whack.

Back on planet earth, it's also true to say that the motorbike race game that came built in with the second generation Sega Master System, dumps all over Wec in most respects. It would also be worth mentioning that consoles are designed to play games from the least important componant upwards, the Spectrums technical architecture was less customized in that respect.
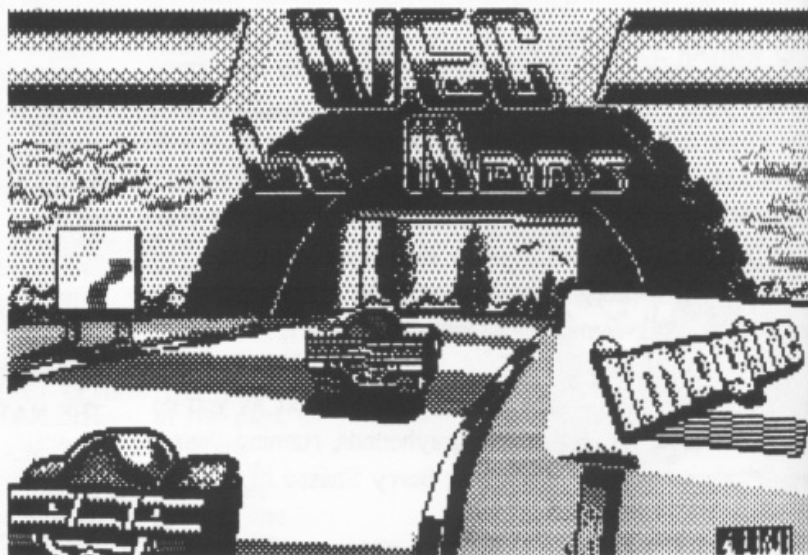
The real means test is to put Wec up against all the other Speccy racing games; the Outrun series, Continental Circus, Super Monaco GP, even Gremlins last offering

Nigel Mansells Grand Prix, as far as I'm concerned, they all fail miserably on almost every count to better Imagines finest hour. Looking back over the Spectrums back catalogue, full on racing games were very few and far between.

It wasn't the easiest of games to master. The course was long, undulating and varied, it contained two corners that caught out those who were not concentrating every time, and the other cars artificial intelligence routines were designed to baulk you at the most inconvienient of places. How many times would you be stuck behind three other cars trundling along, hogging the tarmac when you were running out of time against the next almost there checkpoint.

It was so cruel the way your car thing (veiwed from the back it resembled some sort of cheap ghetto blaster) spun out as a result from the merest clip of another car, or that tree, planted there by some ignorant gardener, oblivious to the fact that a racing car going at 170mph might just knock some leaves off now and again when the driver mistimed a nudge on the old brake pedal.

Compared to your Ridge Racers and Gran Tourismos, Wec offers little in the way of different tracks and cars, it scores one out of ten for car handling dynamics, and it might sound like a wasp trapped in a jar up against a stereo image of another car overtaking to your left, but for a Spectrum, this game shouldn't really have been possible.

The Crashed guide to copyright

WE ARE SCUM

There is not one person reading this article who has not, at some stage or another, broken the copyright law concerning software (yes even him over there, pretend halo-head as he is known to his friends). On a scale of 10, and lets say for arguments sake that the high-end includes murder, rape and mugging old ladies, software piracy scores 1 (for obsolete 8 bit computers) and a big fat 5 or 6 for todays things. Laws of the land are basically black and white, its the degrees and intent of the crime concerned that go towards the final tally.

Software houses like Ocean and Codemasters are acutely pissed off at their past Spectrum titles being banded about on Internet sites and even re-sold as part of CD Rom collections aimed at the smelly emulator user. However, so far they have done nothing about it, suggesting that bringing it to court would be an expensive and possible futile act. They are after all business people as opposed to lost cause zealots.

WHOOPS

It has been suggested that these CD Roms are not actually illegal, taking advantage of a loophole; copying a Spectrum game to be used on another Spectrum in another location is illegal, loading up a Speccy game on an Amiga is not illegal because when the laws were laid out, that just wasn't possible or even desirable! Does that sound about right? As research, I read the whole of the 1988 Copyright Designs and Patents act, and after a week my head still hurt. I never actually got any specific answers either. To call it a grey area would be to declare that bears not only shit in the woods, they wipe off with dock leaves.

Ocean (to use them as an example), have not released an official back catalogue on CD Rom for emulator users. If there was any money in it, they would have done it a long time ago. Just think how smart that would be though, background info on the games and programmers, maybe even early rejected versions of the games themselves, all packaged in a deluxe boxed set with original posters and cover art. But its never going to happen, Ocean make games for PC's and consoles. End of story.

PUSHING DAISIES

Many of the old software houses were bought up by bigger fish, but some simply fizzled out altogether. Whilst CRL don't exsist anymore to slap your wrists over sending one of their games to a friend via a crafty Multiface save, the original programmer/s are either quite right to get the hump with you or will fall over backwards with suprise that you actually still load and enjoy their work. Obviously they won't normally find out, but if you wanted to support the remaining Spectrum enthusiasts (from a PD library say) with hacked versions of their games to keep the memories as a working museum rather than on a dusty shelf, what legal position would that put you in?

THE GOOD GUYS

Some old programming faces are popping up again on various Internet sites, giving blessings that their old software can be enjoyed, swopped and loaded by anyone who still wants to bother. However, for every Don Priestly you can bet that there are three others who would scream the place down if their old games were swapped and cherished over 'illegally' by rum swilling pirate scum like you and me. They wouldn't give permission even if you begged them, and lets face it, some people are just born like that, you have one in your street, maybe it's you...

PUBLIC ENEMY

If it isn't viable for a large company to take a case to court, an individual programmer would surely find it more than impossible. So what do we do as Spectrum enthusiasts... ride roughshod over these solid yet un-workable copyright laws or respect those laws to the letter and let everything rot in silence? Its a personal decision and I've already made mine, I will continue to enjoy my Spectrum and its intended software by any means possible. If that technically makes me a law breaker then best phone PC Plod now. Slap me in cuffs and take me away, but its going to get a touch crowded in that cell I can tell you.

THE BULLSHITTERS

We have had a problem in Spectrum land with certain people claiming they have exclusive rights over certain titles nowadays, giving it the big one and acting like life was still contained within a school playground. The whole situation is not controlled by anyone, it is of little interest to anyone who could really kick up a stink about it. Next time someone tells you you can't copy a game for somebody else or distribute it, tell them to fuck off. Go on then, sue us! Talk is cheap.

Its not so much an 'Up yours Darling Twins', its more the 'look its like this and this is how I see it' situation. Petty criminals or naive realists? There isn't any glimmer of light at the end of this particular tunnel, it will remain a glued up mess that no one can or could sort out. So the emulator wankers can have anything they want but real Speccy users can have nothing? Go fuck.

I DON'T HAVE THE ANSWERS, I'M JUST PART OF THE PROBLEM

Then you must surely be killed.

Public Exposure

HERE'S THE LATEST BATCH OF DEMOS FOR YOUR DELECTATION AND SOME
GREAT NEWS IF YOU ACTUALLY WANT ANY OF THEM WITHOUT HITTING YOUR
HEAD AGAINST A BRICK WALL OF INDIFFERENCE. IS YOUR CURRENT PD LIBRARY A
STAGNANT JOKE? WATCH CRASHED WHOOP THEIR ASSES BIG TIME...

FIRST ASSOCIATION / OMEGA SOFTWARE / 1998 / 1.6mb (3 discs)

Despite the fact that I was busting for a poo during the last few segments, I
clenched and clutched at life itself, I was determined not to miss a second of
this, and my bomb bay lost. First Association is the biggest demo the
Spectrum world has ever seen, it stands at a staggering 1.6 megabytes (just
about as much as a Microsoft loading screen, probably). At a push it could
have been squeezed onto two Plus D discs had one or two of the least
impressive parts been left out, but there you go. Look, it is staggering for a
Spectrum anything, ok Amiga person? I know you have a five disc epic sample
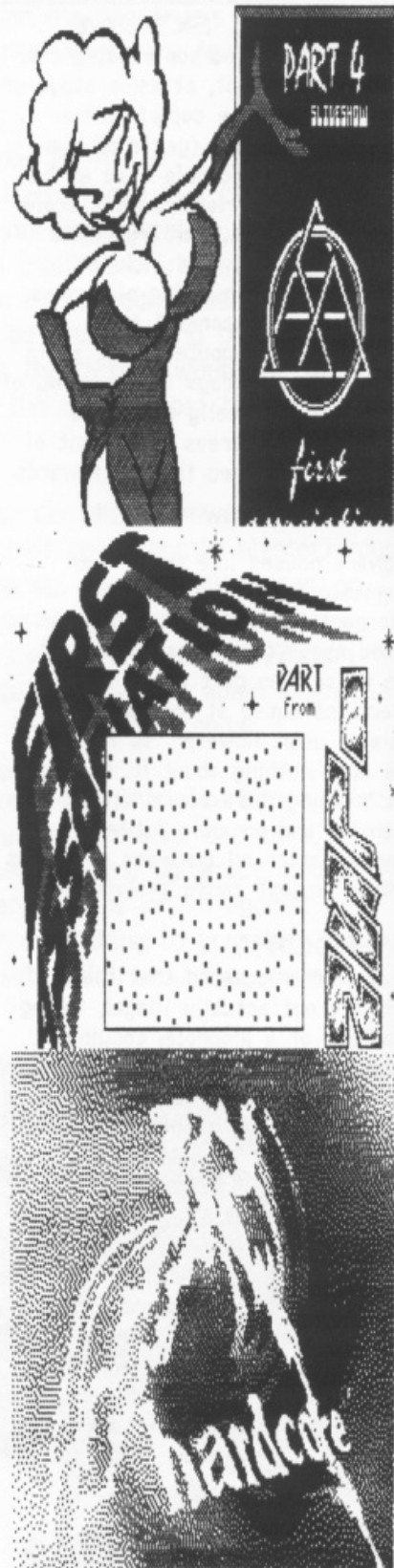of one of your farts, yes I know it's funny, just keep quiet.

This was a major project involving most of the Spectrums current coding
groups, old name dropper that I am, these include Omega, K3L, Illusion, Black,
ESA, Hlavsoft, Naughty Crew, Gasman, Unbelievables, LS, Busy & Noro, Speccy
Boyz and Starsoft. Yes, the man of Gas, Matthew Westcott, was flying the
flag for Britain on his own and he didn't let the side down. A section from
Extacy 3 would have really gone down well though.

Genuinely outstanding parts are few and far between, the moving machinery
animation certainly springs to mind, and the mugshots of Naughty Crew will
have you running to the nearest police station on full paedophile alert (it's
the hair lads, it's the hair). The biggest disapointment has to be the majority
of the music tracks, they all give the AY chip a good work out, be sure of
that, but its all so uninspiring in total. Check out a title like Echologia if you
need reminding just how wonderful the Spectrum can sound.

Overall, a brilliant achievement of organization and cooperation, some great
parts and some average parts, with Omega himself saving the best till last.
This will be a nightmare on cassette, the odd loading error is bound to crop
up somewhere, and as the demo loads as it comes without the aid of part
selection, this could be a pisser of gigantic proportions. Someone knock up a
simple Basic load patch quick!

HIGHER STATE / 3SC TEAM / 1998 / 80kb

It gives me great pleasure to announce the first depiction of sperm wriggling
down the screen on a Spectrum. It is all done in the best possible taste, why
it could almost be educational. Whatever bitmap zooming voxels are, this demo
has them in abundance... I give up, what are they? The music drives along at a
fair old pace, the realtime 3d graphics make the Z80 positively creak under
all those calculations, but it's a smooth effect well done. A friend at school
used to claim he could reach higher states, astral plane his way into
Genevieve Campbells bedroom and see her wearing 'those' white knickers we all
dreamt about. I saw him working in Asdas only last week.

DO-LITTLE / ADAM / 1998 / 36kb

Adam what then, Ant? Adamant? It's so casual round here lately. A new British demo coder arrives on the scene and comes up with a pretty good debut. This doesn't happen very often. Spot the cartoon character from the panning attribute artwork, and loud cheers should celebrate Ernie and Bert's hi-res screenshot (it will only look pretty lo-fi on this page). Come on then, who are you exactly, where have you been all my life?

POZDRAV 98 / SPECCY BOYZ / 1998 / 7kb

Just to prove that demos don't have to be a Spectrum full of outrageous effects, little ones like this put a smile on your face, makes you feel all kitten strokey warm. The Speccy Boyz wish only good things to happen to you during 1999, my good I'm filling up, only The Waltons have this effect on me. God I love demos.

FEARZONE / NAUGHTY CREW / 1998 / 82kb

We all have our own personal fear zones, mine is The Venue in New Cross. Every Friday and Saturday they have tribute bands on for the students. If that is the future of our country I'm off to Prague. The music in here is so influenced by Extacy 3 it's untrue, that sort of blippy toot melody and relentless rumbling bassline. At first, the graphics are pretty poor, but stick with it and the fruits come out in handfuls. The Naughties have a member who looks just like Joey from Home and Away. And you thought Crashed never told you anything?

THE LAST 48 / E.S.A. / 1998 / 119kb

Not the last demo from ESA, stop crying into your lager and lime. Not all Sinclair fans abroad have 128's or even real machines, quite a few have the rugged 48k+ with a three channel sound interface, how cute. There are some colours in here you won't have seen before; slime green, curious orange and fey fringe pink. Have they nabbed Gasmans primary colour square animations from Pondlife? Are they cruising for a bruising? Silly little tune sprinkled over hardcore stomper alert, pack that in this instant.

PAUL HOWARD, THE MAN WHO HAGGLES IN POUND LAND, IS BACK WITH A NEW SERIES ON STUFF.

Let's face facts, Spectrum Basic is slow. To prove it, just try counting to a thousand: FOR N=1 TO 1000: NEXT N. On a BBC micro this takes under a second, on a Spectrum it takes five seconds.

That's not the only problem with Spectrum Basic, it's also rather heavily bugged. Asked to subtract 1 from 65535, Basic returns -1x10↑38. The following two snippets of code demonstrate more dangerous bugs:

PRINT AT 0,0; CHR$ 8;" "
DEF FN a()=FN a(): PRINT FN a()

This series is not intended to detail errors in the ROM or to compare the Spectrum with other machines. The point I'm trying to make is that Spectrum Basic has always been a very limited programming language. On the other hand, Basic is capable of more than most people imagine. With a little technical knowledge it's possible to use Basic to manipulate the Spectrum hardware and to produce some surprisingly complex effects.

I'm not writing this series on Basic programming from scratch. As far as I can see, anyone interested in Basic will already have learned the fundamentals from the user manual or from any of the numerous other programming courses that have been published (oh yeah... cough cough - Crashed readers). Bearing that in mind, I won't be explaining how to print text on the screen or get input from the user, instead I'll be looking at some of the lesser known techniques relating to Spectrum Basic, and demonstrating of what Basic is really capable.

I'm going to start off with a brief look at interrupts. What is an interrupt routine, it's essentially a way of performing a repetitive task in the background. Every 50th of a second, the Z80 processor drops whatever it is doing, carries out the interrupt routine, and then resumes from where it left off. While you type away in Basic, your keypresses are monitored by an interrupt routine that polls the keyboard. In games and demos, music played in the background is interrupt controlled. The Multiface and +D system have their own non-maskable interrupts (NMI) which allow you to freeze the computer at the press of a button.

Can we set up an interrupt from Basic? Technically the answer is no, though it's perfectly feasible to have interrupts going on while a Basic program runs. However, we can set up a Basic routine which calls a machine code routine intended to be run on interrupts, such as a music player. This is where timing comes in.

As I mentioned, an interrupt is supposed to occur every 50th of a second, that is, once every 0.02 seconds. Spectrum Basic being somewhat lethargic, it would be pointless to attempt to set up a loop to produce a 0.02 second delay. On the other hand, if we repeatedly call the machine code routine with no delay at all, it won't be slow enough. Salvation lies in the Pause command.

The manual notes that PAUSE n stops computing for n frames at 50 frames per second. PAUSE 1 therefore, pauses for the required fiftieth of a second. Hallelujah! One point to note is that the 128k is marginally faster than the 48k. Because of this, you should run the following examples in 48k mode. Making them work in 128k mode is likely to require considerable tweaking.

Here's a neat example of rasters in Basic. Rasters are the horizontal bands of colour displayed in the border by some demos. The trick lies in the fact that the refresh (the period when the screen display is updated) is synchronised with the interrupts.

10 BORDER 0: BORDER 0: BORDER 2: BORDER 6: BORDER 4: BORDER 1: BORDER 0: PAUSE 1: GO TO 10

Running this (in 48k mode) produces four bands of colour centrally positioned in the border. You can change values to whatever colours you want. As it stands, you have to press Break to get out of the loop. It would be nicer to wait for the user to press a key. A sensible first attempt might be to include IF INKEY$="" THEN GO TO 10 after the PAUSE 1 statement instead of just GO TO 10. Unfortunately, the timing is so critical that the few extra processor cycles (used by INKEY$ to read the keyboard) causes the rasters to jump to the bottom of the screen. To compensate for this, remove the first BORDER statement.

Another common use of PAUSE 1 is in playing Soundtracker songs. This popular music utility can compile songs and produce a routine to play them in the background. Say you compile a song with the Play routine at address 40000. The following basic program will play such a song at the correct speed, just as it would if played on interrupts from machine code.

10 CLEAR 39999
20 LOAD "SONG" CODE
30 RANDOMIZE USR 40000
40 PAUSE 1: GO TO 30

CLEAR is used to reserve memory space. Don't forget that Clear wipes out all the Basic variables. Because of this, it's usual to put it at the beginning of a program before declaring any variables.

USR 40000 calls the play routine. USR being a function, requires a preceeding command, RANDOMIZE is a good one as it produces no screen output. It should however be avoided if you intend to use RND as a random number generator. In this instance, use something like LET L=USR 40000. In case you're wondering, the value assigned to L comes from the BC register pair, which can be thought of as a special machine code variable.

Finally, PAUSE 1 produces the necessary delay (remove this statement to hear the song on fast forward) and the GO TO statement loops back to play the next note of the song. As with the rasters you can add a keypress checker, however, don't expect to be able to play a song in the background by making occasional calls to the player between other statements. At best it will sound jerky, more probably, it will be far too slow.

Incidentally, the +D disc system provides its own interrupt facility, which can be used as a convenient way to set up a real machine code interrupt from Basic. Simply POKE @16,n where n is the address of the routine in Spectrum Ram (POKE @ accepts double byte values, so n can range from 0 to 65535). I haven't ever seen it done, but a Basic program intended only for the +D system could make real use of interrupts this way.

THIS MONTHS TYPE-IN IS A AUTOMATIC INTERRUPT MAKER, WITH SOUNDTRACKER IN MIND...

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WITH

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2000>PRINT AT 0,0;"Interruptmaker 1.1 By LCD"
2001 LET vtab=128: LET vjp=129: LET code=33026: LET call=60000
2010 PRINT AT 2,0;"Vectortable: ";vtab*256;" - ";vtab*256+257
2011 PRINT AT PI,0;"Vectorjump to :";vjp*256+vjp
2012 PRINT AT 4,0;"Code on :";code;"  off :";code+9
2013 PRINT AT 5,0;"Interrupt call to :";call
2014 PRINT AT 6,0;"Start"
2015 PRINT AT 21,0;vjp*256+vjp;" to ";vjp*256+vjp+12;" : Reserved"
2020 LET pos=2
2021 PAUSE 1: PRINT AT pos,31;"<": PAUSE 1
2022 IF INKEY$="6" AND pos<6 THEN  PRINT AT pos,31;" ": LET pos=pos+1
: GO TO 2021
2023 IF INKEY$="7" AND pos>2 THEN  PRINT AT pos,31;" ": LET pos=pos-1
: GO TO 2021
2028 IF INKEY$="0" THEN  GO SUB 2080: GO TO 2030
2029 GO TO 2022
2030 IF pos=2 THEN  GO TO 2040
2031 IF pos=3 THEN  GO TO 2050
2032 IF pos=4 THEN  GO TO 2060
2033 IF pos=5 THEN  GO TO 2070
2034 IF pos=6 THEN  GO TO 2100
2040 IF INKEY$="5" AND vtab>95 THEN  LET vtab=vtab-1
2041 IF INKEY$="8" AND vtab<254 THEN  LET vtab=vtab+1
2045 PRINT AT 2,13; PAPER 1; INK 7; BRIGHT 1;vtab*256;" - ";vtab*256+
257
2046 IF INKEY$="0" THEN  GO SUB 2080: PRINT AT 2,13; PAPER 7; INK 0;
BRIGHT 0;vtab*256;" - ";vtab*256+257: GO TO 2021
2049 GO TO 2040
2050 IF INKEY$="5" AND vjp>95 THEN  LET vjp=vjp-1
2051 IF INKEY$="8" AND vjp<255 THEN  LET vjp=vjp+1
2055 PRINT AT 3,15; PAPER 1; INK 7; BRIGHT 1;vjp*256+vjp
2056 IF INKEY$="0" THEN  GO SUB 2080: PRINT AT 3,15; PAPER 7; INK 0;
BRIGHT 0;vjp*256+vjp: GO TO 2015
2059 GO TO 2050
2060 INPUT "New address for CODE ON :";code: GO TO 2012
2070 INPUT "New address for CALL :";call: GO TO 2012
2080 PRINT AT pos,31;" ": IF INKEY$<>"" THEN  GO TO 2080
2081 RETURN
2100 CLS : PRINT AT 0,0;"One moment please..."
2101 FOR a=vtab*256 TO vtab*256+257: POKE a,vjp: NEXT a
2105 RESTORE 2200: FOR a=code TO code+17: READ b: POKE a,b: NEXT a
2110 LET hl=call: GO SUB 9999: RESTORE 2300: FOR a=vjp*256+vjp TO vjp
*256+vjp+12: READ b: POKE a,b: NEXT a
2200 DATA 243,62,vtab,237,71,237,94,251,201,243,62,63,237,71,237,86,2
51,201
2300 DATA 255,229,197,245,213,205,L,H,209,241,193,225,201
2350 CLS : PRINT " SAVE Following CODE chunks:"''"Vectortable:"'" ";v
tab*256;" (257 Byte)"
2355 PRINT '"Code for Interrupt control:"'" ";code;" (18 Byte)"
2360 PRINT '"Call to prog:"'" ";vjp*256+vjp;" (13 Byte)"
2370 PRINT '"INT on:  USR ";code'"INT Off: USR ";code+9
2400 STOP
9999 LET H=INT (hl/256): LET L=hl-H*256: RETURN
```

INTERRUPT MAKER V1.1

This is a program to set up interrupts in easy steps. You are now able to write programs with Soundtracker songs playing on interrupts together with the main program. If you have your soundtrack starting at 25000, all you need do is initialize with USR 25000 and set interrupts to call 25006 every 1/50th of a second. Set the vector table, the code to switch interrupts on and off and the code to call the song anywhere in free memory. Set Interrupt call to 25006, save the code, then innit song and switch interrupts on. Switch Interrupt off before saving to disc or your system will crash.

MENU KEYS: 6-DOWN, 7-UP, 0-SELECT, 5-DECREASE VALUE, 8-INCREASE VALUE

Richard Coulthards

WORKING CLASS JOKES

Hello readers, on my travels I've enjoyed many an evening of high spirits and ribaldery with the lower orders, we exchange such stories of high jinks and frightful japes, it would be a shame to leave such stories for the fireside hearth alone. This particular tale came to me from the Crashed staples ladies, only three per issue now girls, they don't grow on trees you know!

There were these four nuns waiting at the gates of heaven right. St Peter's standing there and he goes, "Right, to get into heaven you have to answer a simple question and cleanse your sins with the holy water in the fount."

So he turns to the first nun and says "Sister, answer me truthfully, have you ever touched a mans penis?" She goes a bit red and replies in a quiet little voice, "Yes Father I have, I once touched a man there with my little finger." St.Peter nods gently and says, "Ok sister, wash your little finger in the water and go into heaven."

He asks the second nun the same question, she goes a bit red, shuffles her feet and admits, "Yes father, I have touched a man there with my right hand". He points to the fount and the guilty looking nun washes her hand then goes into heaven.

All of a sudden, the forth nun rushes to the fount and starts gargling with the water. St Peter shouted, "Oi, slow down, wait your turn sister!". The forth nun spat the water out and shouted, "If you think I'm using this water after she's had her arsehole in here you can forget it."

Next week I hope to fully delve into the history and often misplaced pathos of Mrs.Slocombes pussy.

HARDCORE HARDWARE

CUSTOM JOYSTICK INTERFACE

How many times have you found yourself in a situation where you have loaded a game, to find that you have the wrong joystick interface. Before loading a game, watch what happens when you use your joystick when connected to a Sinclair Interface 2, or a joystick interface with the Sinclair option. You should see a series of numbers, normally 6,7,8,9, and 0 if you press fire. Each movement of the joystick is the same as pressing the approriate key on the keyboard.

Connecting these keys to a "D" type jostick connector would then take the place of the Interface 2, and leave the edge connector free.
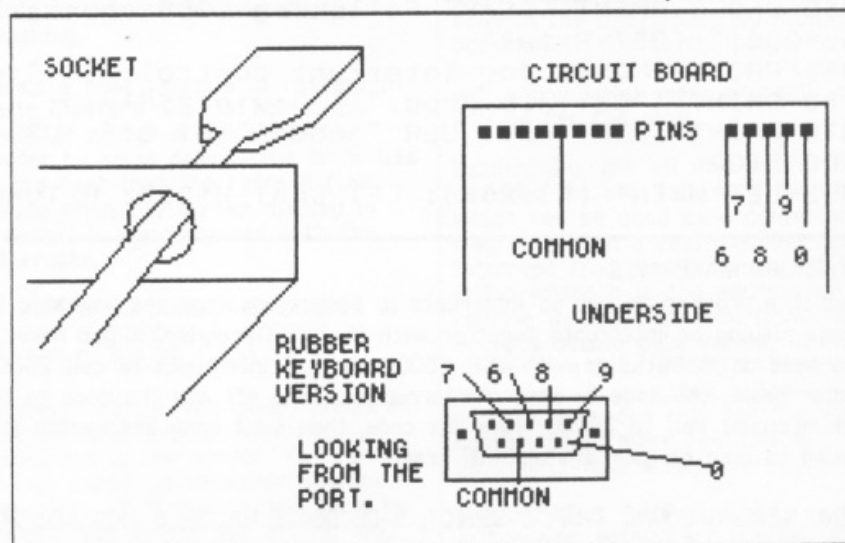
Six solder connections are made to the underside of the motherboard. Following the diagram, make the connections to the pins on the membrane sockets, using suitable lengths of wire. A suitable hole must be made in the lower casing for the joystick socket.

Any joystick which works with Kempston or Interface 2 will work with this circuit, but unfortunately the 128 joysticks do not.

(FIRST PUBLISHED BY KEVIN GURD, EMILY SOFTWARE)

```
SOCKET

RUBBER
KEYBOARD
VERSION

LOOKING
FROM THE
PORT.

CIRCUIT BOARD

■■■■■■■■ PINS ■■■■■

                    7   9
COMMON          6 8 0

UNDERSIDE

7  6   8   9

COMMON
```

Sinclair Years 1981

Christmas would never be the same again, Kerplunk was being replaced by a strange computer games frenzy previously stoked up by that bastard Binatone pong. The rich kids already had an Atari VCS, the weirdos had a ZX80 and the rest of us normal people kept ourselves amused going to football and beating up National Front skinheads, pretending we didn't want to play kids games anyway.

Child molesters and drug dealers nationwide could now enjoy their hobbies in the warm surroundings of arcades as they moved inland from the usual grab a penguin seaside locations. New games included Pacman, BattleZone, Centipede, Moon Cresta, Gorf, Pheonix, Donkey Kong and Galaga. Never before had so many drunken pissy trousered Scottish tramps asked for 10p, refuse and they'd keck yer heed en.

If you had a soldering iron you could buy your own personal computer for half a weeks wages and become the foundation of a new industry. A new magazine appeared, Computer and Video Games, it was no surprise that Whitehouse International outsold it three to one.

NEW HOME COMPUTERS

ACORN ATOM: Cambridge based Acorn release a 6502 based 8 bit computer, hi-res colour graphics and sound (through a TV), qwerty keyboard and 2kb Ram. The damage was £170 or £50 cheaper in kit form. Upgradable to 12kb. Strange Basic variant language.

COMMODORE VIC 20: Americans Commodore release a 3.5kb, qwerty, full colour and sound beast with their usual greedy motives, it cost £190 plus you had to buy the official tape deck for another £45. Software could also be loaded direct from plug in cartridges and it even had a joystick hole. Difficult to program, it also looked like a fat ugly pig.

SINCLAIR ZX81: The follow up to the cult ZX80 arrives with touch sensitive keyboard, monochrome output and no sound (although quite a lot of buzzing instead). Very easy to program, upgradable to 16kb, had it's own optional dinky thermal printer and only cost £70 new. Took the UK by the penis hairs and never looked back. It begins (say the last two words in that ultra deep scary voice with added flem).

NEW HOME CONSOLES

HAND HELDS: Cheap and cheerful for Christmas, crap and bollocks in any other language. Nintendo kick bum with Game and Watch, everybody else hams up Space Invaders or shooting other little things. Ten years until the Gameboy then.

MATTEL INTELLIVISION: Steamed in with a mighty colour console that gave the Atari VCS the fright of its life. Superb state of the art arcade graphics and gameplay and even the promise of a plug in keyboard to turn the whole shebang into something very awesome indeed. It was even better than Hot Wheel track.

PHILLIPS VIDEO PAC: Also known as the G7000 and looking like a curious cross bred ZX81 and a My Little Pony travel case. Awful games and no style whatsoever meant only Coventry fans bought one.

Next issue, strangely enough we reach 1982, half a dozen new computers and a shaven haven mag arrives. Hurrah!

Miners threaten to strike over the proposed pit closures. Mrs.Thatcher has decided that working class men with all dirty faces should be put on the dole queue. She doesn't like Unions.

Bobby Sands, an IRA hunger striker, stands as the Republican candidate for the Fermanagh and south Tyrone by election.

Bob Champion, recently recovered from cancer of the pods, rides Aldaniti to win the Grand National at Aintree.

Sue Brown, first woman cox in the Oxford Cambridge boat race, leads Oxford to victory. She was a fox.

Unemployment reaches 2.5 million. The new hobby for London youths is forming bands, bunking the tube fair and fiddling the dole.

Riots hit the streets of England in several cities. Young men from all walks of life and backgrounds give the police a bloody good hiding. Dave Fountain unwittingly walked straight into the middle of the Brixton riots looking for a chip shop that was still open. You think I'm joking?

Four Labour MP's slag off their parties 'drift towards extremism' and form their own political alliance, the Social Democrats.

Bobby Sands won the by election. He celebrated by starving himself to death. Well, if a points worth making...

Marcus Sargeant fired six shots at the Queen to protest at unemployment being created by the Tories to help out their rich mates. Not only did he miss, they were blanks. Silly sod.

BITTER SOCIAL MISFIT
The gossip column for people with a dogs arsehole for a mouth

Clever people these university programming graduates, all they have to do is trawl up the most boring predictable early arcade games, stick 3D graphics on them and release them for £40 on a PlayStation. I don't really want modern versions of Asteroids, Space Invaders, Pacman and Defender, I want challenging original games that are worth the money I have to pay for them. Is that too much to ask from these know nothing snow boarders? If I want to play crappy old Spectrum games I can do that for nothing.
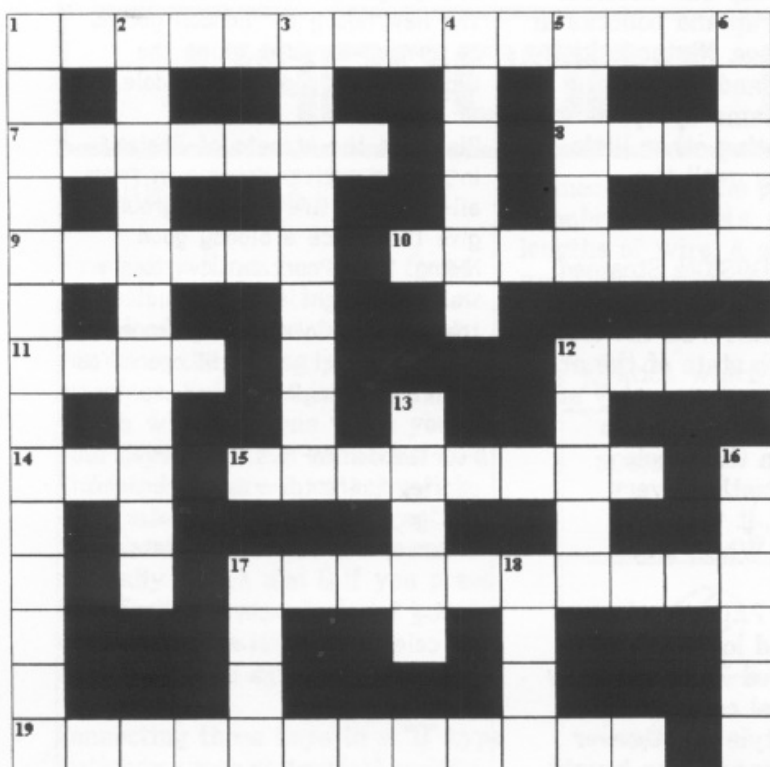
These kids TV executives are up with the times, their latest program is called MYSTIC KNIGHTS OF TIR NA NOG. Does that mean it's a show about some hippy bloke walking along a road like he's just shit himself and talking crap?

I hope so, the X-Files is only on once a week as it is.

Is it my imagination or do I really want to shag all four girls in B*witched? Bring back the days of having a token female staff writer in computer mags, dressed in little tops and pouting. This is what we want. Better still, digitize some obscure woman from the telly and call her your news reporter, that would be funny! (Gulp... PD Power editor).

Paul Howard's Cryptic Specword #3

ACROSS
1. ASCII 13, or second stage of old round trip (8,6)
7. The company that 3 used to keep (7)
8. Deliver a tirade, like Roy in Alch News (4)
9. Bug Byte sequel and CJ's first outing (6)
10. Primary features of Spectrum display? (7)
11. Admittedly, a possible outcome of any logical operation (4)
12. Legendary platform game from System 3 (4)
14. Machine code instruction that's back to basics? (3)
15. Parameter dispute (8)
17. What Dizzy and Magic Knight have in common (10)
19. Extra monitor required for interlace effect (6,6)

DOWN
1. In which one locks away graphic personalities? (9,5)
2. Churned butter on set could wipe the Specrums memory (5,6)
3. Sweet chap, though a profiteer (4,5)
4. Highest Basic address, one of Pratchetts peaks (6)
5. Graham Mason - or Codemasters tortoise! (5)
6. They follow the Basic commands Rem and Play (5)
12. Psychedelic Mr.Jones was a fruity character (5)
13. With which to pen original adventures (5)
16. Oceans 128k adventure never had one (6)
17. Quickly read the screen during TV update (4)
18. Some bits gathered in by tea time (4)

ISSUE 23 SOLUTION: (ACROSS) 1.AUFWIEDERSEHEN 7.ATLANTIS 9.FIX 11.RPG 12.OMAR 13.BREAK 15.IRON 18.ELEMENT 19.HORACE 22.HEAVY 24.EXTACY 25.BOBBRENCHLEY (DOWN) 1.ATTRIBUTE 2.FLAG 3.ISL 4.DONPRIESTLY 5.HUFFMAN 6.NEXOR 8.INGLISH 10.OK 14.ENTER 16.QWERTY 17.REDDY 20.SHAW 21.JAIL 23.ACB

LETTERS

Dear Crashed,
"Mark Sturdy, student, born to confused parents". Well they would have been, considering I'd already been born once in 1978. I demand a printed correction or you will be hearing from my lawyers enuch.
Mark Sturdy, Leamington Spa.

I have it on the highest authority that you spent your first two years as a chrysalis.

Dear Crashed,
Hope you had a good Christmas and New Year celebrations - plenty of booze and good food! It was all over too quickly for my liking!
Martyn Sherwood, Rugby.

Well don't take the tree down and get pissed everyday then.

Dear Crashed,
Many thanks for issue 23, unfortunately I am no longer into Speccy's as I sold all my stuff some weeks ago after advertising for some months. I think that interest was lost after I found to my cost what a right shit Lloyd Garland turned out to be, he nicked a load of my 3" Outlet disks and some +3 Spectrums which I sent him for repair. I would be very interested if some genius could write a program to read Speccy 3.5" discs on a PC as I have all my old letters on a disk. So far no one seems to have managed anything better than a 128 tape drive reader which isn't a lot of good. Most of the so called emulators don't reach the dreaded +3.
Alan Sharvell, Harrow.

The fat nonce from the west strikes again, that's another good kicking he's owed. Anyone help with a PC prog that reads +3 3.5" discs? (this should be funny).
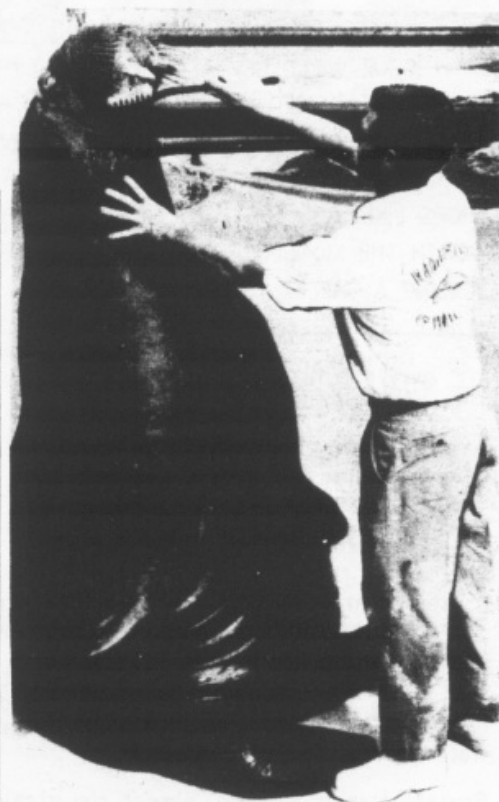
Dear Crashed,
I've built a conti board 18" shelf to go on top of my desk, so that the TV or monitor sits on it and the back of the Spectrum slides underneath it. I put those files on 3" disc as asked, Zulu Wars, Biffa and Driver9 are ok, Burdensome Dream doesn't work, it comes back with a strange error report. I was rather suprised that you tried to put ZX81 Emulator onto the +3, it certainly didn't seem to work, I'm sure you'll find it's only 48k and grey +2 compatible. Not your day is it?
Bernadette, Goole.

I didn't bother testing the software on a +3, I've had a result though, I didn't expect any of it to work.

Dear Crashed,
I hope you are keeping well. I sincerely hope your new venture goes from strength to strength. I've been very busy over the last few months. I'm currently working on a modified 16k Spectrum which has 'paged' eproms and Ram. It currently has 272k of Rom and hopefully I shall be increasing the Ram and other facilities. I'll keep you posted.
Kevin Gurd, Southampton.

300 hundred years ago you would have been burnt at the stake as a witch. Let me know when you've enhanced my old electric toothbrush into a twin speed fanny hammer.

Dear Crashed,
How about printing a picture of some bloke scrubbing a walrus's teeth with a big shitty toilet brush.
Allan Clarkson, Leeds.

Dear Crashed,
...By the way, please don't print any of my letters in Crashed, I'm fed up with my ramblings appearing in every Speccy mag under the sun.
St.John Swainson, Ricky RMI.

But think about your fans, consider their feelings first.

Dear Crashed,
You did a good job with your first issue apart from the article about the Gloucester show. It would be good to see you putting on a convention in that big city called London, let's see what you can do, I think you'll find it's easier to talk about than organize. I'll be first in the queue and I'll write a review of it for you for Format, don't worry, I'll be brutally honest. I don't think slagging off people you hope to sell your fanzine to at every turn is a very good move do you?
(name and address supplied).

Don't know sir. Can I go now sir?

POSTBOX

EACH ISSUE WE'LL BE TAKING A SMALL YET PERFECTLY FORMED LOOK AT SOME OF THE THINGS YOU CAN GET FROM THAT LIST OVER THERE, THINGS WHAT YOU CAN'T BUY IN THE SHOPS LIKE. ARE THEY ANY GOOD, ARE THEY WORTH THE MONEY? PROBABLY, WHO CARES? SENDING A SAE IS A VERY NICE GESTURE

THE SMALLER REVIEWS SECTION

HACKERS HANDBOOK
Andrew Ryals
Spectrum A4 fanzine
Price: 1.00

Now on its fifth issue, the handbook for hackers pretty much writes its own story. There are many people like me, those who lack either the skill or the patience to complete the majority of games, our best friend has always been the Multiface and our urges to Poke things. Press that red teat and watch your Speccy crash.

Presentation is minimal, almost run straight off a word processor by the looks of things, but for the subject matter, is more than adequate. A large selection of old Sinclair mags are up for grabs too, all at 25p each. This really must be remarked upon, someone selling old Spectrum stuff at realistic Car Boot sale prices. Nice one. It could be argued that the best parts of HH belong in a proper all in fanzine, but if cheating is your bag, this is right up your Chad Valley.

ALCH NEWS
Alchemist Research
Spectrum/Z88 screenzine
Price: 1.00.

Published three times a year, you get a lot of eye food for your money here. Each issue normally takes up the majority of a Plus D disc (780k) with the inclusion of free games and programs bolted on the end. The front end interface is very well designed, choosing the pages you want being very straight forward for disc version readers.

You'll get all the latest news and gossip plus some well researched articles by a number of respected writers. It's also shoved onto the Internet where it gets up to 2000 browsers.

Screenzines can be a pain if you usually like to read things on the toilet, but due to the content of this one, would be far too expensive to print on paper. Alch News has always been a little too egotistical in its editorial, but if you can ignore that then informative articles are always to be found within its depths.

PERIODICALS - MAGAZINES - FANZINES - MANUALS

ALCH NEWS: 62 Tithe Barn Lane, Sheffield S13 7LN.
-Tape/disczine. Spectrum/Z88. Price: £1.00
BLITZ: 31 Ashwood Drive, Brandlesholme, Bury BL8 1HF.
-Disczine. Sam. Bi-monthly. Price: £2.00
CRASHED: 11 Camel Road, Silvertown, London E16 2DE.
-A4 fanzine. Sam/Spectrum. Bi-monthly. Price: £1.00
DESERT ISLAND DISKS: 32 Dursley Road, Wilts BA14 0NP.
-A4 fanzine. Spectrum. Bi-monthly. Price: £2.00
FORMAT: 34 Bourton Road, Tuffley, Gloucester GL4 0LE.
-A5 magazine. Sam/Spectrum. Monthly. Price: £2.00
FRED: 32 Barleyfield Road, Wetherby LS22 6PN.
-Disczine. Sam. Bi-monthly. Price: £2.00
HACKERS HANGOUT: 29 Dent Dr, Wakefield, W.Yorks WF1 4JG.
-A4 fanzine. Spectrum. Monthly. Price: £1.00
MULTIFACE POKES: 26 Elsie Street, Goole DN14 6DU.
-A5 fanzine. Spectrum. Editions. Price: £2.00
OUTLET: 34 Saltersgate Drive, Birstall, Leicester LE4 3FF.
-Disczine. Spectrum. Monthly. Price: £3.50
PD POWER: 13 Rodney Close, Bilton, Rugby CV22 7HJ.
-A5 fanzine. Spectrum. Bi-monthly. Price: £1.70
QL TODAY: QBranch, PO Box 7, Portslade, Sussex BN41 2ND.
-A4 magazine. QL. Bi-monthly: Price: Annual subs £25.00
RETRO CLASSIX: 4 Chatterton Avenue, Lincoln LN1 3TB.
-A4 fanzine. 8 bits/arcade. Monthly. Price: £2.00
RETROGAMER: 52 Kingfield Road, Liverpool L9 3AW.
-A5 fanzine. 8 bits/arcade. Bi-monthly. Price: £1.75
SAM COMMUNITY: 34 Craigowen Rd, Carrickfergus, BT38 7NE.
-A4 newsletter. Sam. Bi-monthly. Price: Annual subs £2.00
SAM SUPPLEMENT: 37 Parker Street, Walsall WS3 2LE.
-Disczine. Sam. Bi-monthly. Price: £2.00
SCENE+: PragerstraBe 92/11/12, A-1210 Wien, Austria.
-Disczine. Spectrum. Bi-monthly. Price: £1.00
SOUNDBYTE: 204 Lamond Drive, St.Andrews, Fife KY16 8RR.
-Disczine. Sam Quazar support. Monthly. Price: £2.00
THE SPC: Im Tannenforst 10, 51069 Koln, Germany.
-A5 magazine. Sam/Spectrum. Monthly. Price: Annual £13.00
THE SUC: Gastacksrstr 23, 70794 Filderstadt, Germany.
-A5 magazine. Spectrum. Monthly. Price: Annual £13.00
YESTERDAYS TECHNO CLUB: PO Box 19, Manchester M23 0YJ.
-A5 magazine. All 8 bits covered. Price: £2.75

USER GROUPS - PUBLIC DOMAIN LIBRARIES

ALCHEMIST PD: 126 Hayward Road, Bristol, B95 9QA.
-Spectrum/Amiga/PC public domain libraries.
ALCHEMIST RESEARCH: 62 Tithe Barn Lane, Sheffield S13 7LN.
-Spectrum/Z88 user group. Emulator support.
CRASHED DEMO LIBRARY: 11 Camel Rd, Silvertown, London E16 2DE.
-Spectrum public domain library.
INDUG: 34 Bourton Road, Tuffley, Gloucester GL4 0LE.
-Sam Coupe/Spectrum user group.
SAM PD: 18 Mill Lane, Skelmersdale WN8 8RH.
-Sam Coupe public domain library.
WOMO PD: Im Tannenforst 10, 51069 Koln, Germany.
-Sam Coupe and Spectrum public domain library.