EDITORIAL
by D.BLACKBURN

As you can see there's a lot to keep to entertained in this issue. But I want to mention that *11 will be extra special. Not only will it be larger than usual (since it's our X-mas issue), feature this year's poll, tie-in to the release of ZAT's first PD disc for our exclusive library, but also it will include a little "present" ONLY for our subscribers, young and old. In order to ensure you get the right "pressie", we need to know whether you are a SAM or Spectrum user. So can you please write in as soon as possible (maybe with a few comments for the old letter's page) and thus when *11 comes out, you won't miss out.

In case you're wondering where a few sections have wandered off too, don't fret..they'll be back next time..it's just that we had so much material to go into this issue, some things had to be regretfully put aside until next time. About next time, fans of Sentinel (I know you're out there) will notice that next issue I begin to share writing and artistic duties with fellow SF fanatic/artist, the lovely Polly. Together we hope to broaden the strip in both areas..in fact you can sample a bit of Polly's artistic talent on this issue's cover (designed by your's truly). Speaking about Science Fiction, etc..are there any readers interested in SF/fantasy as a whole (TV, books, films, etc). If so, then stay tuned, interesting developments are in the works..Till next time...

D Blackburn

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Cover by Polly Sheppard.

LETTERS with MAC

Hi, Everyone. Welcome to yet another letters page and what a letters page it is. Many thanks to the readers who have written in to Mac's letters page. We all do so enjoy reading your letters and it is a pleasure to print them and share your views with other readers, so keep up the good work and keep those letters rolling in. By the way if anyone sending in letters doesn't wish their address to be mentioned, then please do so.

Anyway lets start off with a letter from an odd chappie from Carlisle, the one and only (Thank God) Kevin Cooper.........

Dear Mac

Thought I'd put pen to paper (I would have used a printer but I ain't got one) (Shame isn't it! Anyone got a redundant printer? Mac) and add something to your letter's page. But I can't think of owt to say. (Flippin' great! I actually get a letter addressed to me and he can't think of anything to say, that's it!....I'm going home!....Sit in a corner and sulk...blah, blah.....,)(Oh shut up whining and get on with the rest of Kevin's letter....Editor)

Anyhow, could you please print my full name and address so that any SAM people out there can get in touch with me. I have a SAM Coupe (Mega brill) with 1 disk drive (internal). If anybody writes I will accept TWZ files. Now what's all this about a PD disk you are doing? Well here it comes (no comments please, anyone - especially you Mr Editor!) (What me! dear Little ME! Nah!....Editor) the praise for the mag. Its gotta be here or this letter wouldn't get printed (Too darned right it wouldn't.... Mac), and I would have wasted quite a bit of time.

So firstly, and honestly, Ta for the speed of your replies. I sent off for

issue (on the Friday then received it on the Tuesday, Ow! erm! sorry I just dropped issue 9 on my little finger and it is very small, and because it was jam packed and so heavy it nearly broke it (I'm sure he's on about his little finger!....Mac). I would like to be sorting something out on the SAM, but I locked the disk boxes' before and I have lost the key. Time for some pick locking.... shouldn't take too long Because the locks are crap!

And finally about this debate you are having about the printing! If the sample issue was a straight standard photocopy, the compared too issue 9 the printed issue 9 is miles better than the photocopied sample issue. It was slightly difficult reading the sample issue cos most of the the letters had no tops or bottoms! (As if we would....Mac) Well this is me winding-down and signing off, keep up the good work.

Kevin Cooper
157 Newtown Rd
Carlisle, Cumbria CA2 7LL

Well Kevin, for a person that can't think of owt to write about you've certainly said a lot, still many thanks for writing to me anyway. I do hope that you have many a happy day with your mega brill SAM Coupe and as for the PD disk, Shush! cos I ain't saying nuffink, so there! There will be a PD disk full of SAM goodies released by 'im upstairs' (David Ledbury that is) very soon, so turn over to his PD column (when you've finished this page first!) for more details.

All further issues of ZAT will be printed and not photocopied from now and for ever more. So there!

Next is a letter from a person who gives his name as **Doctor Dark**

Dear ZAT

May I please urge you to hurry up with the ZAT issues 1 + 7, you were supposed to have sent to me with ZAT issue 9, but I haven't got that yet

either. Surely its out by now! I would also like to remind you that it was a subscription that I sent for.

Your Fanzine is the best by far, and I was thrilled to bits with issue 8. (I loved the programming bits extremely) Please do more original programs for the Spectrum and maybe you could give someone a free game for the star program. All in all, your mag's the best.

Doctor Dark.
16. Montgomery Avenue.
Beith, Ayrshire, Scotland KA15 1EL

We were taken aback due to the Increased demand for back issues and new readers; this resulted in the delay in sending out your back issues/ issue 9.

However we think that we have now remedied the situation and all should be back to normal.

And now a "few" words from Phil Glover

Thanks for the latest issue of ZAT. Issue 9 is of a very high standard, and you seem to be getting quite a few contributors. The printing is far better than photo-copying, and ZAT has developed its own distinct style, which is a sign of a good magazine. The interview with Alan Miles is very good, and the best I've read so far, except that your esteemed proof reader missed the strange word 'varatious'. That mistake apart, the text is very good. Have you noticed the amount of mistakes in SINCLAIR USER? For a "professional" magazine it's awful. It's almost as bad as the Contact fact sheets, with all their spelling mistakes and wrong information such as the SAM Hotline ceasing and SAM Support declining - perhaps they want jobs with NEW COMPUTER EXPRESS.

I'll definitely have a go at the competition for FIVE ON A TREASURE ISLAND. I hope it doesn't end up being one of those terrible old ventriloquist/dog jokes: "What is on top of a house? - Roof!" or "What's the weather like? - Ruff!" Perhaps doing obscene things to Timmy may prove worthwhile(!).

I was glad to hear that ZAT will be attending the ADVENTURE PROBE convention. Jack Lockerby of River Software tells me he's planning to go, as he won't be at Butlins with his grandchildren this year, and Tim Kemp, who runs the Spectrum adventure PD library, FROM BEYOND Spectrum adventure magazine and is also new adventure columnist with YOUR SINCLAIR, plans to come along, dragging Jon Lemmon of Compass Software along, as Jon's got a car. Most ADVENTURE PROBE readers should be wearing name badges at the convention, and Tim Kemp may be supplying FROM BEYOND with FB badges, so we can spot each other. How about a few ZAT badges so we can spot each other, too, even if they're only WH Smith safety-pin jobs? Also, any chance of the ZAT staff wearing name badges at any future All-Format Fairs. so we know who's who?

Andy Wright's Master BASIC is out now, and that may well appeal to you as well. Another program with an intimidating manual! I'll have to get down to learning more about computers to get the most out of these utilities.

Yet again I found Martin Scholes' Soapbox fascinating reading, particularly where he slags off Future Publishing. NCE seems to be getting worse by the week. They seem to think that people have an insatiable greed for more powerful machines with more gadgets and have unlimited cash to spend. Don't they realise that many people are happy with their existing machines, and merely want to make the most out of them? How many people want multi mega-byte 32-bit machines with expensive software? And how many people actually need such machines for their purposes? A Massey Ferguson combine harvester may be state of the art and incredibly powerful, but if you've only got a small back lawn to cut, why buy one?

I liked Martin's bit about YOUR SINCLAIR's "humour" with the shed. In the pre-war years, Arthur Askey and Dicky Murdoch used to have a show called Bandwagon. which was supposedly broadcasted from the roof of

Broadcasting House, along with a goat and other animals. It was funny then, but it shows how weak YS is in the humour department. Talking of old radio programmes, one of the most famous was ITMA, with Tommy Handley. In the programme they had a cleaning lady called Mrs Tickle. When they appeared live in front of the troops they called her Tess. (I'll have to think about that one!) Another story I liked was about Groucho Marx on a chat show. He appeared just after a woman who'd had about 18 kids had been on, and he sat on the couch next to her. He said "Why did you have so many children?" and she said "Because I love my husband." Groucho replied "I love my cigar, but I take it out sometimes!"

   Well, I think I'd better finish now, as I'm descending into the realms of smut! Thanks again for producing such a good mag, and don't bother with a reply. Just keep up the good work and enjoy yourselves.

Phil Glover, Birmingham.

We plan to review Master BASIC shortly; David is very impressed with it, and he says the manual isn't too hard going (with perciverence!). Andy Wright, the programmer and SAM ROM creator will be interviewed in next issue.

   Also, if anyone wants a personal reply to a letter, whether it be a technical query or to the letters page, COULD you please enclose an SAE, or the reply will have to be enclosed with the next issue received.

   Well that's it. The longest, continuous letter's page that I have ever had to sit through yet (boy, does my poor back-side ache!) Hopefully more of the same will follow next time, so for now its Ta Ta for now and I hope to see you soon !

MAC

SOAPBOX
BY Martin Scholes

THE "PORTABLE" COUPE

Greetings! As our indiferent Summer fades away and we start on the slippery slope towards Christmas, let's hope that the Sam Coupe gets the recognition that it deserves. Of course there has been a campaign "against" the Coupe, but this seems to have been doused and the "journalists" involved on certain computer magazines, curtailed, who at the time should have known better, but obviously didn't.

These poor dopes operate under the delusion that they are "wits". Still, it is so nice to know that they at least got that HALF right

The mistake that Samco (then MGT) made was in not doing what everyone else did and passing off the initial ROM difficulty as a "design feature". Then they could have then put lots of new chips into the computer with "cute" names like; "Infeasibly large Boris", "Black Bob", or even "Aunty Ethel".- Remind you of anyone?

Giving some consideration to the matter, I think that the Coupe could, given a minor casing change, a rechargable battery pack and a gas plasma screen (or some other suitable type) make an ideal portable computer. I think that it should not be too hard to have a software patch designed that would allow the work done on the Coupe to be transferred to PCs, STs, etc.

The cost of developing such a device

(Coupe Sport? Coupe Wanderer?) would be minimal, perhaps the memory upgrade could be included as an "on-board" feature, it would certainly help the Coupe to break into the business market, especially if PC emulation were possible. There would also be a market for a good deal of "On the Move Software", which could include databases, spreadsheets, word processing packages, etc. I hope that this is an idea that Samco can at least give some consideration to.

"WHAT'S SAUCE FOR THE GOOSE?"

I wonder how many other people have spotted a deliberate mistake in the; "let's see how much more money we can screw out of people stakes"?

By this I mean ELSIE's (or whatever they call themselves!) decision to force computer magazines to reduce the number of games programs on "free" cover tapes/disks. Oops, did I say "forced"? -Sorry! I obviously meant that; "both sides of the negotiations came to a decision of mutual benefit." HOWEVER, the whole thing sounds suspiciously like a "restrictive trade practice agreement", which as we all know is against the laws of the U.K. and also the E.E.C.

I find it rather ironic that an organisation that claims to be a EUROPEAN Leisure Software Publishers Association can at least SEEM to flout E.E.C.laws so easily. For if ELSPA can allegedly break the law regarding restrictive trade practices, why can't Billy Bloggs, schoolboy, allegedly flout the laws of copyright by pirating his mate's games and why can't Bill Sykes, dodgy businessman make a few dishonest bob by selling illegally copied games? What's sauce for the Goose??

WHAT'S ALL THIS THEN?

An interesting snippet of information came my way recently, though as I can't remember where it came from, I can't tell you where I got it from. Rumour has it that a lot of the so-called Far-Eastern pirate programs available are really legit copies!

Well, sort of...How it works is this; A company has -say, 100,000 pieces of a certain type of software. What it does is to have another - say, 20,000 copies knocked up in secret. These are then sold as pirate copies, at a lower price. Of course, although the price is lower this does not matter as the software house will not pay any taxes on those sales, the monies earned being laundered through the accounts!

Obviously, the software industry has to be seen to be against piracy, so the people who are selling the so-called pirate software are sacrificed from time to time so that it will look good. Either being paid well for their trouble, or are just poor dupes who did not even know who their real employers were!
Of course, I have no way of knowing if the above is true, although it does sound plausible, doesn't it? WHAT DO YOU THINK? I'D BE INTERESTED TO FIND OUT.

Well that about wraps that up for another issue. I hope that I'll be seeing you next time, and if you have any comments on matters raised in this, and previous, Soapboxes then write them to be care of the main address. MS.

(All opinions expressed in Soapbox are not necessarialy those of ZAT).

INTERVIEW with.. Alan Miles Part:2

What's your opinion of the press's coverage of SAM in general

I think we lived by the press, and died by it as well.

Back in 1990 last year, there were two press reports that treated us very severly indeed, and were actually the death -Knell of MGT. Although there were things wrong with MGT, there were two particular reports; one saying we were going to recall all the machines, which wasn't true, and the second saying that the MIDI wasn't working, which was also not true.

This was just at the point, that we'd actually won awards for the best piece of hardware, from the industry, and we'd just taken on new distributors, and suddenly everything went STOP, because everyone had read the magazines, and they'd believed what's in the magazines.

We were very, very badly effected by that, and two months later, we were dead as a result of it. We've been very reluctant to talk to some of the magazines since then, because we thought that it was that we were so high profile that people were actually looking for a story, and you can build people or a company up so far, and eventually someone tries to burst the bubble, and that's what happened.

So we've been reluctant to go out there and try to get much coverage, but its still the case that not enough people know that we are back in business. A good example of this, was in Micro Computer Mart, where on the one hand there was an article saying that were going to be here (All Format's Show - DL) and that we always like going to shows. On the other hand there was an article saying that the SAM Coupe is a great machine, but I think they are dead, I don't think there's any more software. So what we have to do I think now, that we ourselves at SAM Computers, is get around and sit down with the magazines, and make sure that seen - they've bothered to look at - the stuff. We are sending them lots of stuff along, but I don't think they're looking at it. We've got to do that with them, and we've got to envolve other Team SAM people in bombarding the press, because if people don't read about things in the press, we'll remain nothing more than a cult machine.

Do you like participating at the All Format Shows, and are there any other shows that you would like to attend?

I like the All Format's Show, because we've always been a "grass-roots" company by nature, ever since we started. We get our best ideas from users, by talking to people and getting feed-back and meeting with other people in the community, so we can see where to go next. It's a way of monitoring what we do.

There is a down-side as well. It may be that we're actually beginning to look inwards too much, rather than outwards. We do tend to see at All Format Shows, particularly at London with the number there have been recently, the same people over and over again. We love to see the people, but we may be spending too much of our time getting ready for All Format Shows and being there, and not enough time getting out to the new people. We may actually give the next All Format's Show a miss. (May 14th) Partly because it's Cup Final day, partly also because we feel we've been over-exposed in London.

Now it may be right for us to go to one of the Computer Shopper Shows, where we get to a new audience out

there. It may be a little expensive for us. We've just come back this week, from the European Computer Trade Show, and that's the most important show that's in the year. That's the show when we try to get together with the industry, it's when we try and do the software deals, it's when we try and get new dealers in. The Computer Entertainment Show, could also be important for us, at the end of this year.

I should say also, I think that the All Format's Show is held too often in London, I think probably 4 times a year is enough. I would like to see something in Scotland.

Is there any specific things, that you personally would like to see for SAM in the future?

I think we're looking at a number of niche markets for SAM. We're not going to be all things to all people, but we may be very good at, for example, being a great music machine, but also being a good games playing machine.

Very personally, I'd like to see a contribution made to Education with the machine. It's where I came in, and I feel that in Education, we've only scratched the surface of what can be done with computers. I very definately would like that and may actually be eventually writing something myself in that domain. I'd like to see the equivalent of the Ladybird story-books for primary school readers, to be appearing on computers. There's so much that we could do with it. So that is important.

I've had enourmous fun with the MIDI recently. I've never been an electronic musician, although a musician of other sorts, and I think that could be a terrific product for us. Personally, I'm not a great games player, I'm not really into that, but I recognise that we need, in order to spread the word around, we have absolutely got to get major

software houses writing for us. We're already on the way to that, with the deals we've done with Ocean.

Do you read any computer or non-computer magazines?

Only when I have to! Which is all the time!

I have to be aware of what's going on, in the press. Computer Trade Weekly, is very important to me. We like to keep up, as much as we can, with the various SAM dedicated things. I like very much, the design of the Garner Design's magazine, "Sinclair & SAM Computing". Partly because, it's refreshingly different, in that it not only appeals to people who are existing SAM users, but it also, I think, could appeal to people who are not SAM users. We'd like to see the word getting out to people that aren't exisiting SAM users, and most of us are actually fairly inward looking. I think that one may look outwards, and I'd like to see the other magazines do that as well.

Other magazine, not regularly. I dip into things from time to time. I'm not a regular magazine reader.

Do you read any books, and which are your favourite titles?

I did a degree in English Literature, and that effectively killed off the world of literature for me!

What do I like reading these days? Do you know, this is really boring, but I actually get the biggest kick out of reading management books by Tom Peters. He's my hero in management. He's the guy that says, "Put people first in your companies. Put your customers first, and everything else get's right". If I read anything, it's him.

But I spend most of my evenings in the office until 10 or 11 o'clock these

days, and one comes home absolutely shattered. It's been a long time since I've read a good novel, although I claim to be a little bit of a novelist myself.

Which Radio or TV programs do you like?

I always try and listen to the morning news on Radio 4, to keep me up in touch into what's going on, from a business point of view I have to do that.

I watch whatever sports I can, and not much else!

It's a boring life you know, being involved in computers!

If you were not in your present job, what would you be doing instead?

I'd be on the South of France, in a boat somewhere!

If it was working, what I'd love to do, I love writing and if I was not involved in what I am doing, I would probably be writing something, somewhere, for someone! It would be very difficult to go and work for someone else, after having worked by myself, or with Bruce, for the last several years. We have a pretty good relationship, Bruce and I, because we're so totally different in every respect, and we don't get in each others way. It's a relationship which has stood us in good stead for 5 years, and for a few more years it'll probably okay for us to continue.

Do you have any favourite or least favourite games?

I actually like, very much, Football Director 2. I find it still, after a year almost, compelling. I'm pissed as hell that I can't beat it, and get to the first division!

I saw something the over day, that I liked a lot. It's a game called Igneous, which I think has got terrific potential

and which we may well publish.

Least favourite, I'm not a big fan of shoot-'em-ups, I find them boring and repetitive. I'm probably too past the age where I've got great manipulative skills! I like thinking games, I like board games a lot.

Why did you choose Mel Croucher to write the manual?

Because he's the best!

We wanted someone that would introduce a sense of humour and levity into the manual, to stop it from becoming a boring computer manual, and Mel was simply the best in the business. He's got oceans of experience from way back, and he's a good friend. I couldn't have a better choice.

The only thing I feel sorry for, is that we had to finish writing the manual, before we finished the ROM. Therefore there are some inadequacies in the manual, and they need to be attended to soon. Mel is talking to us now about rewriting.

What do you think of the role of fanzines, like ZAT and others, in promoting the SAM?

I think they are very important indeed, for existing custom; users of the machine. Particularly the time when there was a dirth of software to get going, but even if there isn't a dirth of software, I think there's always going to be specialised needs and specialised interests. I think you only have to look at the football world to see how important fanzines are. They're often better than the official programmes. I think it's important that fanzines should be able to be objective, be critical, were they can. I think it's important at the moment that we're holding together from the centre, as we discussed this

morning [as in first Team SAM meeting] that we're all seen to be incredibly supportive of SAM, if we all want to get SAM through, but there's no reason why people shouln't be objective, shouldn't be critical, through the fanzines. I think they've got a long term role to play.

I wonder perhaps, if whether there are too many and if that may confuse users. They may be seeing the same material in one that they are seeing in others. That's a little bit worrying. But they've certainly got a long term role to play, and it's a different role from the bookshelf magazines. Your role, is talking to the converted, talking to the existing customers, making sure that they're up and going. The bookstand one's, is really talking to new customers, to trying to attract them in from the outside. Both are important.

What do you think is the potential, of using the SAM for disabled people?

It's not one that we've spent a lot of time and attention with. It was interesting that when we went to the Educational Training and Technology Show, last January, that a lot of people said, "Oh look! How clever you are, designing the keyboard like that, so that disabled children can actually rest their hands on it."

We said that "Actually, we weren't actually thinking that at all! We just wanted to make sure that you wouldn't foul the keyboard, when you put the disk inside with the front loading!"

I think the machine would lend itself quite well to that, we'd obviously need to work software together, but we do see the machine as being one which is accessible and easy to people of relatively low abilities, whether they're possibly mentally handicapped or physically handicapped people, or to young children. I'd love to see some work being done on it. One of the

problems is that we have to concentrate now, on the mainstream, and we have to do that because, in order for it to become more than a "cult" machine, we've got to be out there, talking to the big shops, big software houses, and so on. But were anyone to be involved in special education, we would do our utmost to promote and sponsor that. I don't think it's work we can do ourselves, but there are other people involved in other projects, and we'd like to encourage that.

ZAT WOULD ONCE AGAIN LIKE TO THANK ALAN FOR GIVING US TIME TO INTERVIEW HIM. NEXT: ANDY WRIGHT: CREATOR OF SAM BASIC, MASTERDOS AND MASTERBASIC.

Mind Games by A.Vincent and J. Crawford

Before I get started on this issue's column, it's time for me to hand over to Joseph Crawford once more, for a review of FORMAT's oriental SAM puzzler, Dragon Tiles......

Dragon Tiles - £5.95 - Format Publications

This game is, apparently, based on the Solitaire/Patience type board game. But having played neither I wouldn't really know!

The idea of the game once grasped is quite simple. The board consists of a 5 layer pyramid of 144 patterned tiles which you have to get rid of, but you can't just throw it out the window!
You see the pyramid from the top and each of the 5 layers are shown by the colour of the tiles' border: Blue for the bottom layer, then Red, Magenta, Green and lastly Yellow for the top layer.

The idea of the game is to remove the tiles by pairing them off with matching tiles. It isn't just as easy as that though as you can only pair tiles off if they are both on the end of their horizontal rows. When the tiles are paired they are taken off the board and the tiles underneath are revealed, unless of course the tile was on the bottom layer, then it simply disappears.

Well that's the theory but how does it play?
The game is well presented, the graphics on the tiles are clear, well drawn and easy to look at.
Although the game is written in BASIC, it is quite fast, with the only waiting time being at the start of each game. The game has been written to make it easy to use. It's controlled by a cursor, one menu contains Load/Save options as well as the all important Instructions and a very useful Help command for when you're stuck to find a match.

I found the game very compelling, by saving a board at the start of a game and then trying out different techniques to remove the tiles will give you hours of entertainment. It really makes you think about what you're doing and I can't remember a game that's kept me thinking for as long as this.
Even if you do manage to complete a board, the tiles are shuffled on the next game to provide a fresh challenge.

Overall, a very good game for puzzle/solitaire fans, which should last for a long while to come.

Well done Format!!

RATINGS	
PRESENTATION	70
COMPATIBILITY	SAM
PARSER	N/A
SOUND	20
OVERALL	85

Thank you Joseph!

Now, before I carry on with the rest of the column, I would like to issue some pleas.

Firstly, did any of ZAT's readers decide to try out an issue of the "Adventurer's Herald", as mentioned a few times over the last few issues? If so, have you heared anything from Rik Jones at all, as he seems to have vanished!

Apart from hearing odd rumours about him getting married (which can't be true, can it?) or moving off to the depths of Shropshire, none of the ZAT team has seen hide nor hair of him yet!

To be safe, if you are a subscriber, contact Rik and see if things are still running as before!

Another plea now, this time from ZAT regular letter writer, Phil Glover.

Phil, together with a friend, is currently in the early planning stage of setting up an Adventure Club for the SAM & Spectrum, which he hopes may eventually include a newsletter and disk. He would appreciate any ideas, contributers, etc.

If you are interested in helping, forward all your mail to:
Phil Glover, c/o ZAT and we'll forward anthing on to him.

Once again, I will mention that ZAT will be attending the Adventure Probe Convention on October 26th. But, if you are not yet a subscriber to Probe and want

to visit the convention (or us!) at the Royal Angus Hotel, in Birmingham, contact Mandy Rodrigues at:
Adventure Probe
Mandy Rodrigues
67 Lloyd Street
Llandudno
Gwynedd
LL30 2YP

Now, who has noticed the departure of a certain well-know columnist, from a certain magazine? Yes, after well over 4 years at YS, and after having a dissected column length, Mike Gerrard has decided to call it a day, and has decided to curtail his Adventuring to just one machine, to give him more time with his writing (including, I believe, a travel book of the Yorkshire Dales...!).

Naturally, with all the support he has given us over the years, we wish him all the best of luck, and hope he may find time to write in occasionally!

Mike's "Throne of Power" has been taken over by Tim Kemp, who was (and probably still is, for that matter!) Editor of the Spectrum Fanzine "From Beyond". Although I have never seen a copy of this one, I have heard said that it is good. The important thing for everybody is that the column is still going, and is (hopefully) in good hands. We'll just have to see!

Many people have asked ZAT in
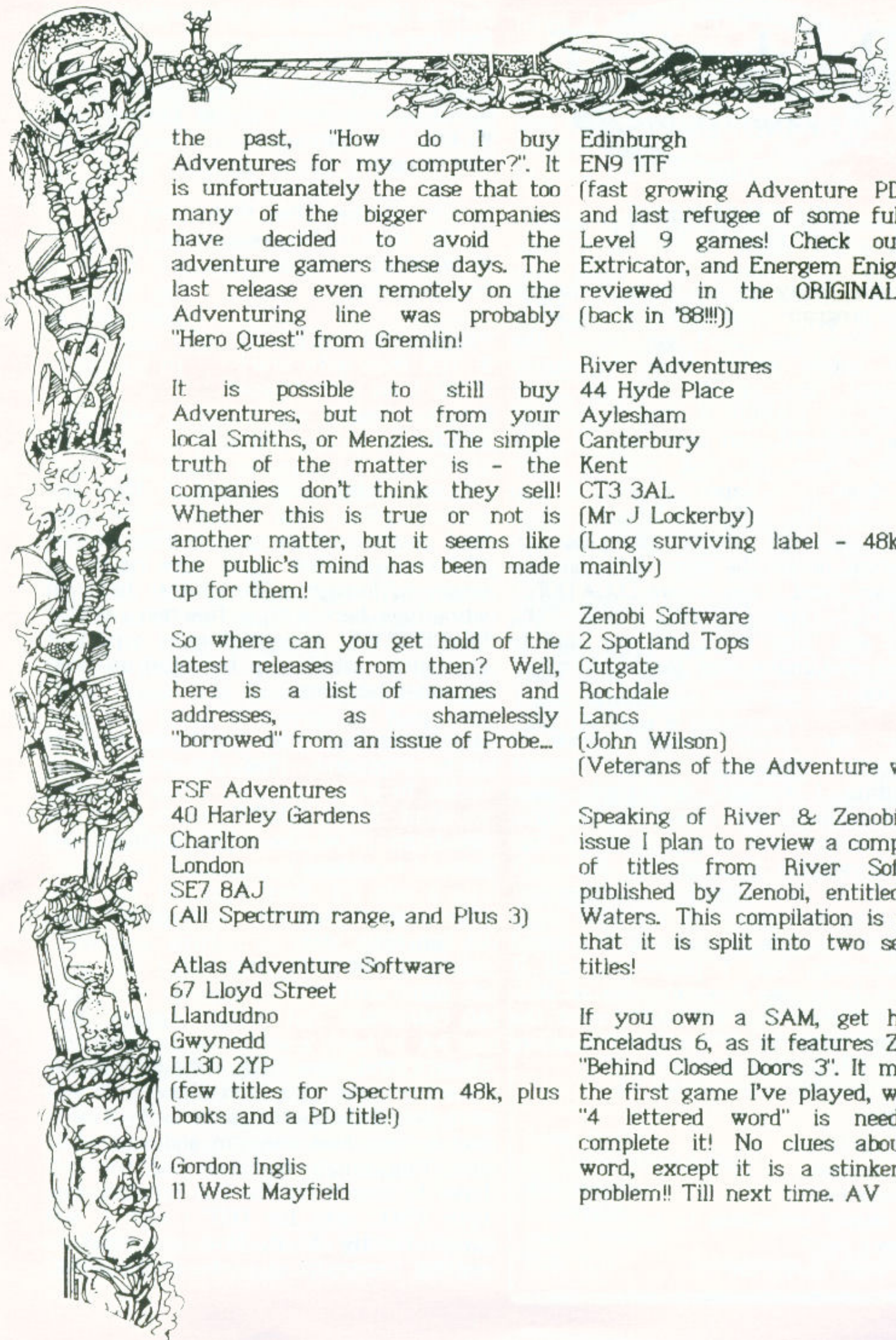
the past, "How do I buy Adventures for my computer?". It is unfortunanately the case that too many of the bigger companies have decided to avoid the adventure gamers these days. The last release even remotely on the Adventuring line was probably "Hero Quest" from Gremlin!

It is possible to still buy Adventures, but not from your local Smiths, or Menzies. The simple truth of the matter is – the companies don't think they sell! Whether this is true or not is another matter, but it seems like the public's mind has been made up for them!

So where can you get hold of the latest releases from then? Well, here is a list of names and addresses, as shamelessly "borrowed" from an issue of Probe...

FSF Adventures
40 Harley Gardens
Charlton
London
SE7 8AJ
(All Spectrum range, and Plus 3)

Atlas Adventure Software
67 Lloyd Street
Llandudno
Gwynedd
LL30 2YP
(few titles for Spectrum 48k, plus books and a PD title!)

Gordon Inglis
11 West Mayfield
Edinburgh
EN9 1TF
(fast growing Adventure PD label, and last refugee of some full price Level 9 games! Check out The Extricator, and Energem Enigma, as reviewed in the ORIGINAL ZAT (back in '88!!!))

River Adventures
44 Hyde Place
Aylesham
Canterbury
Kent
CT3 3AL
(Mr J Lockerby)
(Long surviving label – 48k titles mainly)

Zenobi Software
2 Spotland Tops
Cutgate
Rochdale
Lancs
(John Wilson)
(Veterans of the Adventure world!)

Speaking of River & Zenobi, next issue I plan to review a compilation of titles from River Software, published by Zenobi, entitled Deep Waters. This compilation is so big, that it is split into two seperate titles!

If you own a SAM, get hold of Enceladus 6, as it features Zenobi's "Behind Closed Doors 3". It must be the first game I've played, where a "4 lettered word" is needed to complete it! No clues about the word, except it is a stinker of a problem!! Till next time. AV

Back-chaT
BY ANDY DAVIS

PROGRAMMING
THE RIGHT WAY

Hi again! Today we are going to discuss how to program correctly. If you learn wrong, then you can't get rid of the sloppy habits which leads to sloppy programs! First of all, design your program ON PAPER! If you go straight to the keyboard, you lose some of your valuable ideas. So first, put all your ideas down onto paper. It helps if you put them into different labelled areas. For example, if you're designing an adventure, divide the paper into columns and then head them as so: LOCATIONS, OBJECTS, CHARACTERS, PROBLEMS, JOKES etc. This way, you can add to the list and make sure you don't miss anything.

After the paper design, draw a flowchart. When I was taught computing I thought flowcharts were bits of rubbish! But now I do full time games design and programming I find them invaluable. So draw one. It doesn't need to be an artistic masterpiece. From this you can go to the next stage called Pseudocode or Jackson Structured Programming, but I prefer to call it Natural Language Programming or NLP for short. Here you just write what the program does in a top-down fashion. Here is a typical one...

BEGIN
Setup variables
Setup screen
Get keypress
Move object according to key
Is object hit?
IF NO then carry on

IF YES then decrease lives variable
End Question

Has lives variable reached zero?
IF NO then go back to Get Keypress
IF YES then carry on
End Question

Is score higher than Highscore?
IF YES then highscore=score
IF NO then carry on
End Question

Play again?
IF YES then goto start
IF NO then quit / reset
End question
END.

If you didn't understand it then try writing your own. It's often the case that people can't de-cypher other peoples NLPrograms. Now you are ready to program.(Hooray!) The SAM has an advantage here with a function called a PROCEEDURE. A proceedure is a part of a program which can be called an easy to remember name.

(Unfortunately, the Spectrum has no such command, that is, unless you decide to buy a copy of Andy Wright's excellent "BETA BASIC", which gives the Spectrum SAM like BASIC abilities. See below for address.)

For example, try this short program:
```
10 DEF PROC dots
20 PLOT RND*255, RND*175
30 GOTO 20
40 END PROC
```

Run it and type PROC dots with BETA Basic, or just DOTS on the SAM, and you get dots on the screen. So if you had a very long program and wanted to run this small routine, you wouldn't have to search for the line number, just type PROC dots (or DOTS) and it will jump directly to it. Now get used to putting everything into DEF PROC

statements as its quick, easy to find and call and good programming practice. Some good ideas for it are in a music demo program and have various instruments stored in PROCS then call them when wanted or even have SAVE or LOAD routines stored in procs. For example...

```
1 DEF PROC saveprog
2 INPUT "Filename:",A$
4 SAVE a$
5 END PROC
```
Sam disc users should add this line....
```
3 DEVICE D1
```

Run the program and when you want to save the program you're working on, just type PROC saveprog (or SAVEPROG on SAM). Another good idea is to save your work every half hour or every screen of listing. If you have disk, save to disk AND tape. Tape users should save to two different tapes. The reason being so if the computer crashes or you load in your program and it hasn't saved properly, you have a backup. Disks may hold lots of files, but tapes are less prone to corruption. Keep your tapes and disks in their sleeves or boxes and keep well away from heat, dust and damp.

Always try to rewind your tapes so that the transparant leader is showing and not the tape itself. It's also a good idea to keep a clipboard with a tape catalogue written on it. If, like me, you use C60 tapes to store short programs, that can amount to a LOT of files and not enough space for filenames and information, so divide a sheet of A4 into columns with headers like... FILENAME, TYPE (Progam, Screen, Code), INFO (to hold notes or code addresses). But be careful, zipping backwards and forwards on a C60 stretches the tape, so be careful!

Another good idea is to get a printout of your developing program (If you have a printer). The reason for this is so you can quickly look at the paper if you want to find a line rather than escape from your current unfinished line and scroll back through the listing to find it and then go all the way back to your line you were entering.

These hints and tips may sound boring and to be honest, when you're a new and eager key basher and you just want to program, they are. But get used to them and you don't have to use all the techniques mentioned here, a flowchart may just be sufficient, and when you're an experienced programmer you can use them to aid you in your next masterpiece. Believe me, if you don't learn at the beginning, its hard to learn it when you're an experieced programmer. For example, when I got my first Spectrum in 1987, I never read the manual, and now I have trouble using the OVER command. I've read the manual a dozen times, but still can't get it! Anyway, bye for now, and if you need help, write to me at 62 Tithe Barn Lane, Woodhouse Sheffield S13 7LN with SAE (& tape if necessary).

For any dedicated Spectrum programmers, who wish to upgrade their BASIC to BETA BASIC, drop Andy Wright a line at:
24 Wyche Avenue, King's Heath, Birmingham. B14 6LQ.
Don't forget to state what system you've got (computer model, memory, drive, etc.)

Klax - Enigma Variations - £14.99

This is a game that will appeal to all of you who like Tetris - it's impossible not to see the similarities. Tetris is all about turning shaped blocks as they fall, so that they fit as neatly as possible into the blocks that have fallen below. The aim in it is to clear each horizontal line by filling it all the way across with blocks. Leaving a gap soon creates problems as the blocks get higher and higher, giving you less and less time to get it right. Tetris is a great game, you can't resist having one more try (Don't I know it! DL). In most peoples eyes it is seen as a classic. The only critism of Tetris is that it is a very simple game. The only thing that makes the game harder the further you get into it is that it gets faster. So, now comes Klax, really a glorified version of Tetris.

Instead of shaped blocks, you have single tiles, of various colours. Where the blocks fell down the screen in Tetris, in Klax they come towards you on a grid. The main difference is that whilst in Tetris you have to clear a horizontal line, in Klax you can score in many different ways. Vertical columns, horizontal rows, and diagonal lines of three or more tiles are what make points here. Things are made a little easier by being able to collect a few tiles before dropping them, allowing for more calculated moves. As you progress, different things are requested of you to complete the levels. The game is fast, and uses both your head and those trigger happy hands of you blasters out there.

The programming of Klax dissapointed me a bit. The title screen is a Spectrum screen and looks bland and boring for those who have seen what the Sam is made of. Only a small amount of the graphics have been touched up. The only real improvement over the Spectrum version is the sound, which is limited. Be warned that if you are wanting a game that uses the Sam's capabilities, don't expect this game to use them. Errors in the text in between levels suggest sloppy programming. I would also have preferred the control block to move faster - any game suffers when the control is sluggish, and this is no exception.

Klax is quite a good game. It takes a short while to get used to, but soon becomes a playable game that you will come back and play. It's many different ways of scoring ensure interest for some time. Despite it's shortfalls I rather like it. Compared to Tetris though, it is too complicated, too slow and too unplayable. Tetris is the only game I have seen on machines from consoles to main-frame computers (believe me !). My only problem with tetris is that there comes a point when it just gets so darned fast that no matter how skillfull you are, you can't go any further.

In conclusion then, a good game, though lacking in groovy graphics and sexy sound. Also, why do software houses insist on making games that are more complicated than they need to be? Give me the early games like Defender and I'm a happy man.

RATINGS	
PLAYABILITY	85
ADDICTIVINESS	86
COMPATIBILITY	SAM
GRAPHICS	60
SOUND	65
OVERALL	70

Reviewed by Guy Middleton

## 3D Construction Kit - DoMark/Incentive - £25

3D Construction Kit marks the end of the Freescape saga from Incentive and what a way to go! For £25, which is quite steep, you get a large nicely decorated box containing a video cassette, two computer tapes and a manual. The video, about 45 minutes long, takes you right through the system, in a clear and simple way.

Most of the screenshots are from the Amiga, but occasionally you will see a Spectrum picture. The two tapes make full advantage of whatever computer you use. One tape is the full 128k designer and control language. The 48k owners have to load in the designer separately, create their world and then save the data file and load it into the control language. Therefore, this prevents you from creating, programming, testing and modifying, so you have to be really certain what you're doing otherwise you'll be constantly loading in each program.

Memory is quite restricted, as only 13k is available for your game. 128 owners have the privelige of filling the full 13k with locations and rooms but on the 48k, 6k has been designated to each program, so its fixed at 6k game, 6k language. The save facillity is also poor. Allowing you a filename of just one number (0-9). There is no merge command, so this puts paid to any joint ventures you may wish to make with a distant friend. The other side of the 128k tape features a data set: a small game which Incentive have included to show what is possible, which incidentally has wormed its way onto a recent "Your Sinclair" Covertape. Also included are two screen frames for your finished game which cannot be loaded into the kit, and the compiler which will make your data run a a stand alone game. This is also poor, because if you load in

your game it comes on straight away, sitting you at your start location. There is no help or options screen, but clever programming could get around this problem.

The manual, written by Mandy Rogrigues, is extremely poor, and features the Spectrum, Commodore and Amstrad all together.

AREA:001 VIEU:0213,0544,6604 000,13
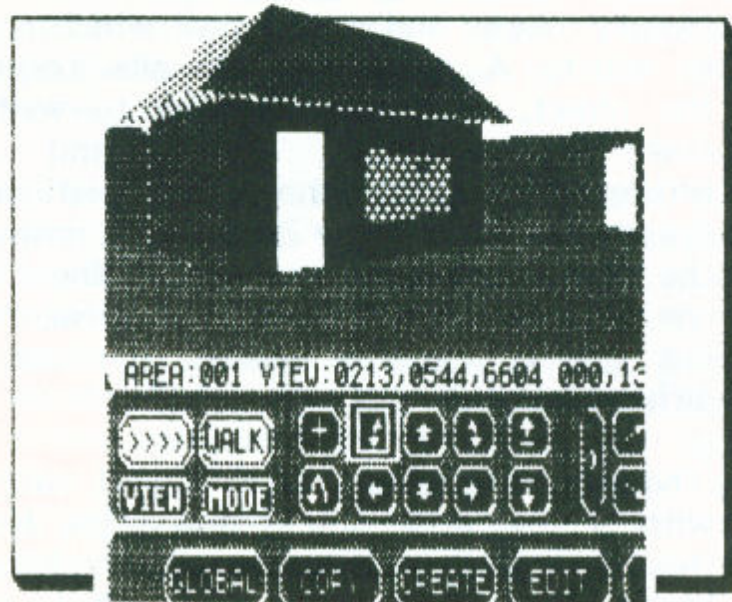
There are some helpful hints but the dictionary of the language (FCL) isn't in any order and doesn't give many examples. She has also missed out a major part about editing your FCL program. To any lost souls, these are... CAPS/SHIFT C - Clear program on screen, CAPS/SHIFT D - Delete line below cursor, CAPS/SHIFT E - Edit line below cursor. There is also an order form to join the extortionate user group. For £12 you get six issues of some unknown journal. After you've just paid £25, it's not going to be easy to find another twelve. On the good side, the language is simple and quite easy to use, and is a little like the languages featured in adventure creators. The video gives a few laughs as you see an extremely bad case of cue card reading from Ian Andrew, the author! Thankfully, the voice over is much more professional than his acting! Creating objects is quite easy and the desktop features are simple and easy to use.

All editing is done by clicking an icon on the screen. Object manipulation is also easy, but I urge users to note down in order what they've created, because when you edit, a small list comes on of what objects you have created. This can become confusing if you've created twenty blocks and are unsure which one is which! A small number sits beside the object, so it's worthwhile to write down the number, object, and a reference you will know. For example, drawing a plan view map, and noting the object numbers on the buildings is one good idea. There is no colour feature, but objects can be shaded in many different ways.

Overall, the package is very good, sadly with a few little quirks and bugs, but this is a unique program and budding architects and anyone interested in virtual reality should love it, but I'd advise you to buy a small notebook and make your own manual from your findings and discoveries.

RATINGS	
PLAYABILITY	80
ADDICTIVINESS	—
COMPATIBILITY	SAM SPEC 47
GRAPHICS	90
SOUND	—
OVERALL	55

One final note, if reader response is quite high, I'd like to hear from readers who would like to have a user group, but don't wish to pay £12 and also don't have to fill in a dozen Spanish Inquisition forms to get information. Get my address from the BACKCHAT section.

Review by Andy Davis

Arkanoid Hit Squad £2.99
Re-release/budget

Arkanoid is one of the "bat and ball" type games, although in this game the "ball" is called a "energy bolt". This type of game has reached an almost cult status ever since "The WaLL Game" was given away free with the first 48k Spectrums.
This game sees you taking control of the "bat" at the bottom of the screen, trying to bounce a "ball" into a formation of multi-coloured bricks above. All the bricks must be destroyed before you can progress onto the next level.

The bricks usually- in the beginning at least- need only one hit to be destroyed, but some need three or more direct hits, while others are completely indestructable.
As well as the bricks are the bonus capsules. There are seven different capsules, each being released when specific bricks are destroyed, the effects of those capsules are bestowed upon you if you bump into them before they fall of the screen. There is a problem with the bonuses though; you can only have one at a time, so you can't have, say, a larger bat with lasers. Bonus capsules include: S): slow downs the ball, P); extra lives and D) which splits the ball into 3!

So that's the game, but what does it play like? The overall game is smooth and flicker-free, unfortuntely there is no in-game tune, just the odd sound effect. There is a nice, if slightly repetitive, title screen tune though.

The levels are well graded, going from easy to fiendishly difficult. There are 32 levels to go through, so this is one game you won't complete in a hurry!
Control is via keyboard, or a Sinclair/Kempston joystick.

All in all this is a great game, surperbly executed. It isn't an original game, Bat and Ball games aren't (Breakout being

one other classic example) but it is one of the best.

RATINGS	
PLAYABILITY	80
ADDICTIVINESS	88
COMPATIBILITY	SPEC SAM
GRAPHICS	85
SOUND	70
OVERALL	90

Reviewed by Steven Kemp.

Batman The Movie: HIT SQUAD £3.99

Hot on the heels of the ever increasing "Bat Mania" surrounding the impending release of the hit movie, Ocean released this game, based around DC's ever popular "Dark Knight". This game, was the second of Ocean's big movie licences, Robocop being it's first major one. Like Robocop, B T M also utilised the principal of the game being sub-divided into different parts, based upon scenes in the film.

The first part was based upon the scene that created "The Joker" in the film, and was based inside the "AXIS Chemicals" building. This was the first "platformy" level, and needed you to beat up umpteen "stooges" with either punches or by throwing a Batarang, swing on a trusty Bat Rope to jump gaps, and finally to knock Jack Napier into a vat of acid.

The second level, put you in control of the "Bat Mobile", as it zoomed on it's way through the crowded streets of Gotham City. Due to the speed of the car, a rope was needed to swerve around the corners, at a 90% turn.

Level 3 gave you the task of finding the house-hold substances, which contained the ingredients of the "Joker's" terror gas, "Smilex". Not easy, especially with the time limit!

Level 4, put you in control of "BatMan"'s specially equipped jet plane, scissoring all of the balloons in a parade, to prevent the "Smilex" they contain, from escaping.

Finally, level 5 is set in Gotham City's Cathedral, during a frantic chase to catch the escaping "Joker". Similar problems lie in wait, as in the first level.

The strongest levels in the game, are parts 1 and 5 - the platform styled levels. These are both well animated, and deviously contructed. However, it is parts 2, 3, and 4 which let the game down. They are not bad, just lacking when compared to the first and last. The third level seems almost like an afterthought!!

In the sense of graphics and sound, the game stands out well. Colour is simple, but after all, BatMan is hardly a "bright" and "colourful" personality! The dark colour scheme of the game, matches well the film it owes much to. Sound to, although lacking on the Spectrum 48k, is nicely done. A lively tune at the start and sound effects throughout.

The game was well recieved at full price, so at it's low re-release price, it is a must buy for any collection! (Although, if you want accuracy for the film, get hold of the video!)

RATINGS	
PLAYABILITY	80
ADDICTIVINESS	75
COMPATIBILITY	SPEC 128
GRAPHICS	82
SOUND	80
OVERALL	82

By D. Ledbury

Publica Dominius

D. LEDBURY

If you recall from issue 9, I promised to unveil another disk to add to the ever growing library. This disk, which is cheaper than the other two available, is my first PD disk (the other 2 don't count!). This one comes from Steve's Software, and the talented Matthew Holt, and contains 3 useful utilities:
SC_Speclone: A Spectrum emulator, that allows you to drop in and out of "Spectrum Mode" with ease, SC_Compressor: A screen compressor, that squashes mode 3 or 4 screens nicely and Humphrey: The disk utility, that Matthew Holt originaly had distributed by Steve's Software, but has since had additional features by Matthew, former Crash "guru" Simon N Goodwin, and our very own Daniel Cannon.

All contain revised documentation, retyped and re-laid by your's truely. This disk, is priced at £1.99, for all members of the public, but since I am a kind so and so, I will let ZAT subscribers get the disk for a mere £1.20! This disk will be available from the 20th September. When ordering, please could you reffer to it as "Utility Disk 1".

For those who have asked, the first "official" ZAT PD Disk (isn't it confusing with all these disks?) isn't quite finished! I'm waiting for a main part of the disk to be completed, but the person responsible is tied up, so I'll have to wait till he can finish it. But, this means I have an opportunity for anyone who wants to do any writing for the disk, to send me their articles, letters, etc. These can be written on paper, or on disk (I mean SAVEd, not with a pen!). Most formats will do, as I am quite a "smart arse" at converting them!

If you have a trusty Spectrum - don't fret! Due to one of our writers moaning at me for the lack of Spectrum PD, I have gotten of my botty and am racking my brains for ideas. It isn't easy to write for the Spectrum though, particularly if you're used to the SAM, but I'll see what I can do! Spectrum items are just as welcome, but I'll probably cover the Spectrum only on +D/Disciple, or tape (under duress, it's very slooooow!!!).

Enough of the ads! Last issue, you may recall that I started to talk about the spectacular new disk magazine from Graham Burtenshaw, Enceladus. (In case you're wondering, Enceladus is one of Saturn's moons!).

The latest issue I've seen, is numero 6. This contains a number of useful, intruiging articles and a vast variety of programming goodies. Included is a review of the 2 SAM Mice, an in-depth over view of the many magazines and Fanzines around (including a not-so-hot one of us! Humph!), plus much, much more!

One of the more interesting routines available on number 6, is a routine called "rack". This does a two-way scroll of an area of the screen, looping for a set ammount. It's a difficult one to explain - but the results are effective.

Six also includes a partial machine code version of a screen wraping program forom an earier issue. This will "mould" a screen, to wrap around a curved surface. A very ingenious program, the mathematics of which are way beyond my humble abilities!

Enceladus is certainly an interesting and varied magazine, and contains enough material, in all forms, to keep most people happy for a while. It should prompt any reader, to try and get the most of their SAM, and since Graham pays reasonable rates - you could even get paid for the privilage!! Enceladus' address can be found on their ad, and one of the disk's goodies is featured in Mind Games.

CHIP-SHOP
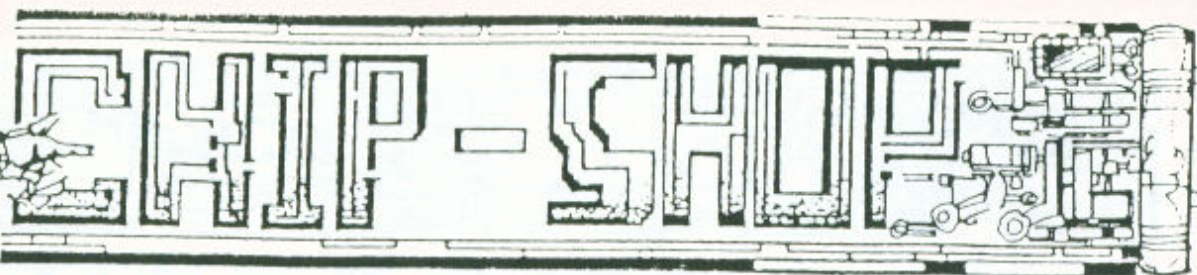
IntergrateDBitS
by StevenWilson

Welcome to this issue's Integrated Bits. This time, you've got a treat to forward to - Brian & Ron Cavers, from Outlet Magazine, have kindly let ZAT publish my articles, which were originally published in Outlet. These are "old" articles - for the newest and latest, I suggest you add Outlet to your shopping list!!

Hopefully, you'll be interested in a few pieces of software from us - Madonna Nude Slideshow [£3.50] - over 18's only, Nightbreed Slideshow [£3.50] - both need MasterDos, and also there's our Amiga Screen Convertor [£8.00] - write for details to:
41 Warrix Avenue, Irvine, Ayrshire, Scotland.

SAM-CLASS
STARTING OUT ON THE SAM
By Stephen Wilson

BASICS: USING THE MEMORY

If you've recently started programming on the SAM, and have had a spectrum, the first thing you will probably notice, is the mass of memory.

Coming from a Spectrum 48K, to a SAM, you may find it difficult in the way the memory is used. (Although a similar method is used on the Spectrums with 128K)

The memory-managment system used on a SAM Coupe, is called a PAGED-MEMORY or BANK type system. This is an old method of memory managment, it was used on the BBC Models, and other old-ish computers, (and also another type of system- the segmented addressing is found in the Intel 8086 processor). It is not found nowadays because new(ish) processors have bigger address buses (which are used by the processor to access the memory chips).

It is used because it allows more memory to become available to the processor than its address buses allow. For example: The Z80 (The SAM processor) has an 8-bit data bus, and a 16-bit address bus. These are connected to the memory chips. When the processor wants to Write a byte of data to the memory, it places the DATA on the DATA BUS, and puts the ADDRESS of it on the ADDRESS BUS, and activates the WRITE line on the CONTROL BUS. The opposite happens when it tries to READ a byte from memory. The processor puts the ADDRESS to be read from on the ADDRESS BUS, and activates the READ line on the CONTROL BUS. The DATA at that ADDRESS appears on the DATA BUS. As each connection on every bus, (every line), can either hold 2 values (+5 volts, or 0 volts) It can be termed that every line is ON or OFF. To represent this 2 state system, we use BINARY, or BASE 2.

It is too lengthy to explain base 2 here, so if you are stuck at it, why not get a book about it, and then come back. Otherwise, try typing in the listing in issue 9's "Code Breaker" column.

As we said earlier on that the Z80 (or
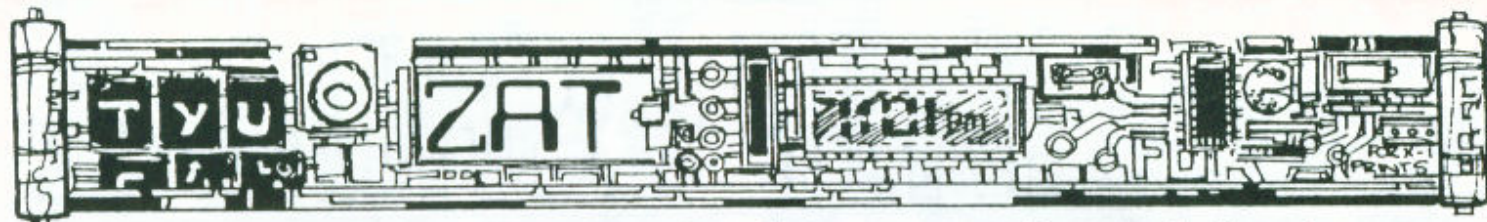
really, most other 8-bit processors), has a 16-bit address bus, and an 8-bit data bus. Thus, as it has 16-bits, or 16 LINES, it can have a number of combinations of each of the lines, ON or OFF. We use this small formula to calculate the biggest combination possible on each of the lines: 2 to the power n, where n is the number of bits, or LINES. As we have 16 bits on the address bus, the biggest combination is: 2 to the power 16, which comes to 65536. Each of the combinations on the address bus is a memory location, so we can have a maximum of 65536 different locations using a Z80. This comes to 64K (1K=1024 bytes, so 65536/1024=64, or how many 1K's in 65536) (You can calcualate how many bits an address can hold using the data bus:8 bit data bus, using 2 to the power n, where n=8: 2 to the power 8=256 This is where the term 8 and 16 bit computers come from. A 16 bit computer can access 16 bits of data in 1 memory read/write, and an 8-bit can access 8 bits in 1 memory read/write, so theortically 16-bit seems to be the better, but it all determines on the memory chips used.Whether a memory location holds 8 or 16 bits as well)

See the diagram below for some examples of different memorys available to different processors.

PROCESSOR	DATA BUS SIZE	ADDRESS BUS SIZE	MAX MEMORY
Z80	8 BITS	16 BITS	64K
6502	8 BITS	16 BITS	64K
68000	16 BITS	24 BITS	16 MB
8086	16 BITS	20 BITS	1 MB

But, you maybe wondering, how come my SAM has got 256K (or 512k), if it has a max. memory limit of 64K. Well, these maximum memory limits are what the processor can access or 'see' at one time. This is where the paging or Bank-switched memory comes in. The SAM has an ASIC which stands for Application Specific Integrated Chip. The ASIC in the SAM controls everything.The processor does the hard work of getting an instruction and processing it. The ASIC controls what the processors sees. It splits the 64K of what the processor sees up into 16K banks.

Each of these banks is referred to as one slot. The slots are numbered as follows:
0-16383 = slot 0
16384-32767 = slot 1
32768-49151 = slot 2
49152-65535 = slot 3
Think of it as a folder which has room for 4 pages of writing. You can slot in and out different sheets of paper into these 4 slots.

Continued next time.

CODE BREAKER by Daniel Cannon

Hello again. I hope you feel happy working with binary, hex and decimal, and you've also got that all-important assembler. By the way, if you would like any further explanation of anything then write to me C/o Z.A.T. I'll try to cover it in the next column, or if you enclose a SAE I'll write back.
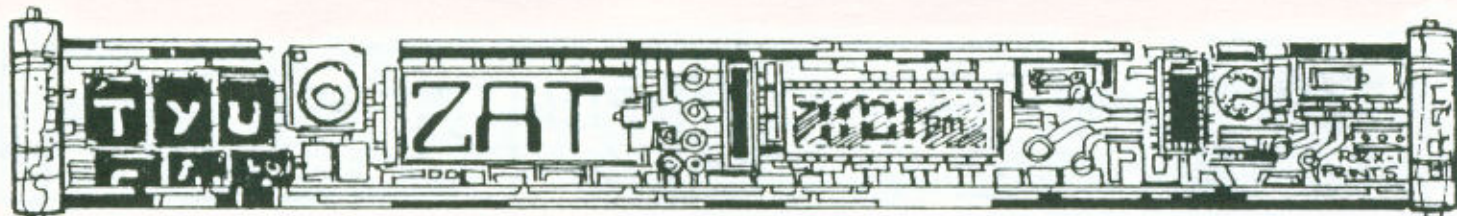
First I'll explain how the processor works. The Z80, as with any processor, just understands numbers. The screen display is just a series of numbers to it. So is the text in this article I'm writing now. Want to hear some sound? That's numbers as well. The same goes for the instructions it uses - authough each one has a name which we understand, each one also has a number and it's that what the processor understands.

So it would seem that we would have to POKE the numbers into the required area of memory then get the processor to execute (=RUN) it. Finding each instruction's number, POKING it, finding any data it needs, POKING that, is a long fiddly business. Make an error and you have to go about converting the numbers back into English to find out what went wrong. Instead we use an assembler. With an assembler you type out the instruction's name, not the instruction's number, making everything far easier understand. The text you type is stored in a safe place in the memory until you assemble it. When this happens your assembler will automatically convert each instruction's name you've typed into it's number and POKE that into the memory as you would have done manually, but faster. If for some reason you want to look at the instructions and their numbers then have a look under 'The Character Set' in your Spectrum 48K, 128K+2, 128K+3 or 128K+2a manual. The other computer manuals don't list them, but it's no great loss.

Load up your assembler and type in program 1 (listed at the end of this section). If you find that lines won't go in, type it out again exactly, spaces and all (however look at the description of labels two paragraphs down). Some assemblers don't mind how you type your lines, they will tidy them up for you (SC_Assembler is one). Others get very stroppy with you even if you miss out a space. Notice how the lines are made up: Line number, label, instruction, always in that order.

The line number decides where in the listing your line will go (just like Basic). It normally ranges from 1 to 32767 or from 1 to 65535 - see your handbook.

The label is a name which you can give to a line number. SAM users may be familiar with the concept of labels in their Basic, but things are slightly different here. During assembly when a label is found it is converted into a number (usually the address of where the instruction following the label will be POKED) which is remembered. Then every time that label crops up later in assembly it is replaced with that label's number, which is POKED in as normal number would be. This is because the processor knows nothing of line numbers, only simple numbers or addresses. Not all lines need labels – only the ones which are referenced by an instruction in another line. For example, to give line 20 the name 'INFO' you would use:

00020 INFO:rest of line...

And line 40 could read
00040   JP INFO

Which would jump (=GO TO) back to line 20. Some assemblers require you to put colons (:) after labels, others don't. In my listings I'll put colons after the labels, and if your assembler doesn't need colons then miss them out and
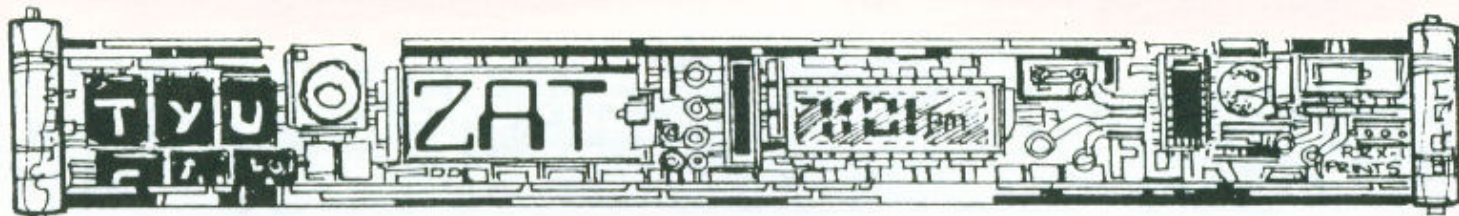
type a space instead. Also you are limited in the length of your labels. You could be lumbered with only 6 characters per label which restricts you giving lines meaningful names you can remember. On the other end of the scale you could have as many as 14 characters maximum per label – very useful.

The instruction is the actual command. It's made up of 2 parts, the mnemonic (prenounced nim-on-ic, which is the name) and the operand (the bits of information which come after the name). For example, in the Basic instruction LET a=2, LET is the mnemonic and a=2 is the operand.

A comment is similar to a REM statement. In Basic they are not too important because you can generally work out what is going on, but in machine code they are essential. Code isn't as straight forward as Basic is, and unless you explain listings you can spend ages picking up the pieces at a later date. Comments are started off by a semi-colon (;) and everything after it treated as your comment and is ignored by the assembler.

Now that's how each line is typed, let's look at the commands in this first programming masterpiece. The first instruction which catches your eye is ORG. This tells the assembler the start address (the ORiGin) of your program. The address I've chosen is address 32768, so we ORG 32768.

The instruction LD (LoaD) forms the nuts and bolts of machine code programming. It's similar to the Basic commands PEEK, POKE, and LET all rolled into one. There are five main types of data which can be used in a LD instruction.

A number, which must be an integer (whole number) from 0 to 255, or from 0 to 65535.

A label. The number of the label is found and that is used in the LD instruction as a normal number would be (see above).

An address – a bracketed number from 0 to 65535. For example, address 23610 is refered to as (23610), and is totally different from 23610. Learn to prenounce brackets as 'the address' and you can't go far wrong.

A register. These are internal storage areas inside the processor, and each can hold a whole number between 0 and 255. There are 7 main registers – A, B, C, D, E, H, and L. Some registers are more suited to do a particular job with a number that no other register can do, simply because that register has instructions which no other register has. For example, the A register is best suited to holding results of mathamatical calculations because it has all the adding and subtracting instructions, but the B register can be used as a counter because it has an instruction which counts down and then jumps (=FOR/NEXT).

A register pair. There are 3 register pairs – BC, DE, and HL. These are used when you want to manipulate a number greater than 255. These are 'made' by 2 single registers working together. B and C together make BC, D and E will make DE, and H and L will make HL. You can't be creative and use LH, EB, or AD – the processor simply wasn't built to do
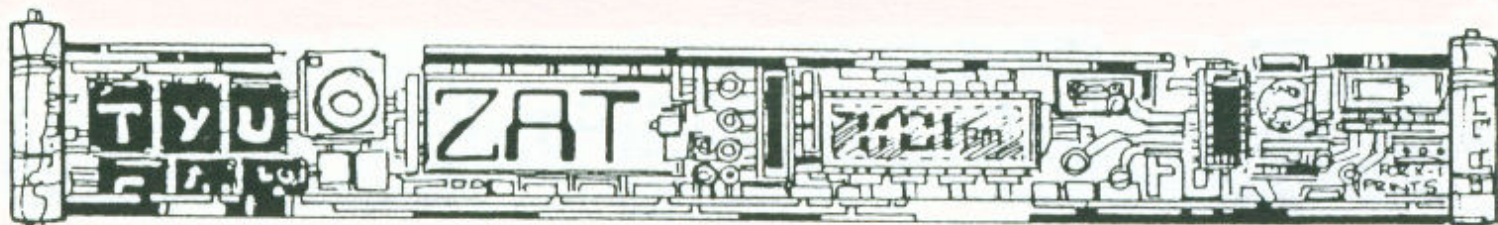
this. A register pair can hold 65536 numbers (from 0 to 65535). I'll explain this in more detail later on.

The thing you want to change is put to the left of the comma in the LD instruction, the value you want to change it to is put to the right of the comma. For example, to put 2 in the A register we use LD A,2, and to transfer the value in the B register to the A register we use LD A,B. Try other combinations, your assembler will tell you if you've made a mistake.

The OUT command stands for 'output' and talks to interfaces attached to the computer (+D, Disciple, Interface 1, SAM Drive Interface, etc...) or to other parts of the computer (keyboard, tape interface, border selector, sound chip, palette tables (SAM), and other things). Each interface has a number from 0 to 65535, and you can send a number from 0 to 255 to the interface concerned. This may not seem a lot – but it's enough to make something as powerful as a +D work! The OUT command we use here only allows you to talk to interfaces 0 to 255, and use the value in the A register as the number to send to it. There are other OUT commands, but this one is the easiest to use. The border is number 254, and we are sending 2 to it (2 is in the A register), so the border changes to colour 2 (red).

The RET is similar to a RETURN in Basic. It tells the computer to finish a sub routine and jump back to the main program. Basic treats out machine code as the sub routine and CALLs (=GO SUBs) it, and to get back to the main program (Basic) we have to RET (=RETURN). If we didn't then there

would be no way back to Basic (which is what many games do – you have to reset the computer to get back to Basic). Never forget the RET otherwise the program will never return to Basic, but crash, and you will loose everything!

So in this program LD A,2 will put 2 into the A register, and OUT (254),A will send this to the border (whose number is 254), then return to Basic. SAVE your source code (the proper name for the text you have typed in) and then assemble it. If you wish you can now save the object code (the proper name for the numbers created by assembling) so you have no need to assemble them again later.

All we have to do is CALL our routine which is at address 32768. And that's all you do on the SAM - CALL 32768. The computer CALLs 32768, which makes the border go red, then RETs, which brings you back to Basic, and you get the OK message which says that the computers done that. On the Spectrum things are different. For historical reasons you type in the wierd looking RANDOMIZE USR 32768, which does the same thing but is longer to type.

If your red border is accompanied by serious modern art, buzzy sounds, or the disc drive goes mad, or the computer simply locks up, then the program has crashed (gone wrong). In Basic the interpreter checks each instruction and tells you if anything is wrong with an error message. Machine code isn't so obliging – the processor carries on executing the stream of numbers, rubbish or not, and if it's rubbish then you generally get a crash. Always save your programs before you test them, and don't keep overwriting your last
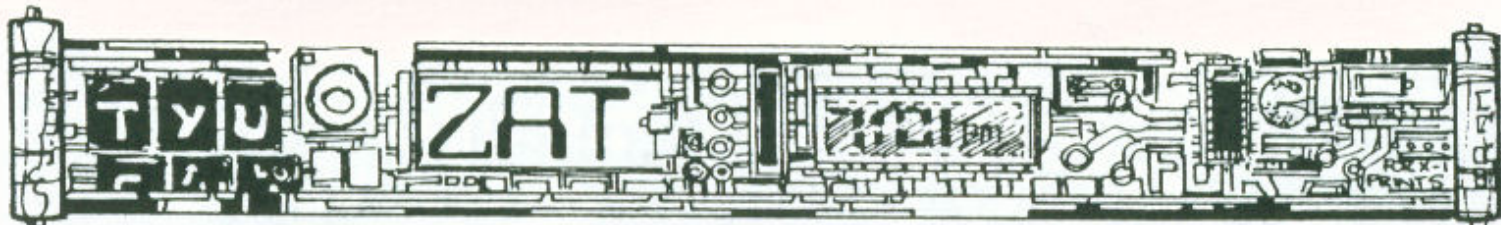
save. Your new version could have a bug (error) in it which the old version didn't. If you have a disc drive take the disc out of the drive before you try your program. And if you are really stuck – get a print out, turn the computer off, go somewhere else and try to solve the problem there. It's better than smashing the keyboard in when it won't work for the 57th time!

Sorry there aren't lots of programs this time but experiment with the border program, and use other registers (LD B,6 : LD A,B : OUT (254),A) so that you get to know these commands. Next time I'll give you lots of sound effects and explain the most used machine code instructions, but here is program 2 to be leaving you with (note you don't have to type all the comments, so it isn't that long!) which shows some of the things you can do in machine code. See if you can work out how it works, and try to to change the instructions to see what different effects you can do. Bye for now.

```
010 ;PROGRAM 1.
020 ;Border program.
030 ;Start address 32768, Length 5.
040
050 ;Our start address (ORiGin) is
32768.
060             ORG   32768
070
080 ;We want red (colour 2), so put 2
in the A register.
090             LD    A,2
100
110 ;Now send the number in the A
register to port 254 (the
120 ;border).
130             OUT   (254),A
140
150 ;Return to Basic.
160             RET


010 ;PROGRAM 2.
020 ;Weird program!
```

```
030 ;Start address 32768, end address
32793, length 26.
040
050 ;Our start address is 32768.
060             ORG   32768
070
080 ;We are going to keep the border
colour in the A
090 ;register. Our start border is
colour 0 (black).
100             LD    A,0
110
120 ;B is going to be used as a timer.
It's start is 255.
130             LD    B,255
140
150 ;Store B for later (don't worry
about this yet).
160             loop1:PUSH BC
170
180 ;Waste a bit of time (No
OPeration – does nothing, but
190 ;takes a small amount of time
doing it).
200             NOP
210
220 ;Add 1 to our border colour, also
known as INCrement.
230             INC   A
240
250 ;Make a sound (bit 4 of port 254
does the BEEP sound).
260             XOR   %00010000
270
280 ;Keep the border in a suitable
range.
290             AND   %00010111
300
310 ;Now send the new border colour
and the new sound to the
320 ;port 254 (the border and sound
port).
330             OUT   (254),A
340
350 ;This 'inner' loop takes slowly
less and less time to
360 ;execute as the 'outer' loop
decreases slowly. The
370 ;upshot of all this is a sort of
'wooomph' sound!
380 ;Waste a bit more time.
390             loop2:NOP
400
410 ;Add 2 onto the border colour
(two add 1 commands):
420             INC   A
430             INC   A
440
```
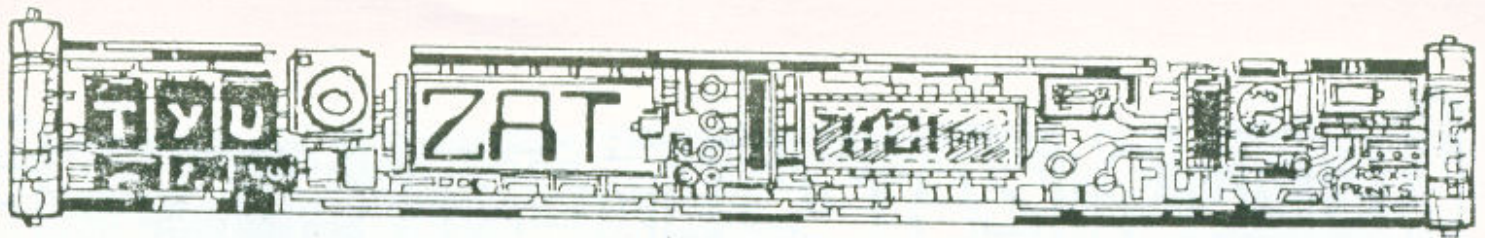
```
450 ;Keep the border in a suitable
range:
460                    AND  %00010111
470
480 ;Send the new border and same
sound (because we havn't
490 ;altered bit 4) to port 254.
500                    OUT  (254),A
510
520 ;Decrement b and Jump if Not
Zero. Takes 1 of B and
530 ;jumps back to line 390 if it isn't
0. A sort of a
540 ;FOR/NEXT loop.
550                    DJNZ loop2
560
570 ;Restore B's value from when we
last PUSHed it (don't
580 ;worry about this yet).
590                    POP  BC
600
610 ;Loop back to line 160 if B isn't
0.
620                    DJNZ loop1
630
640 ;Back to Basic.
650                    RET
660
670 ;This is a sort of general sound
FX and border program.
680 ;Alter the numbers, NOPs, INC A's,
XORs, etc... to see
690 ;what sounds you can produce.
Experiment!
```

Program Box by Steven Hemp

Serious Reading
System Variables Part 2

Yes I'm back, the kid with more brains than there are new sections in the new TV-TIMES, this time I shall be explaining the vast and hitherro undescribed delights of NXTLIN, lost already? Get a back issue - go on, you know it makes sense...

NXTLIN 23637 & 23638

This points to the line after the one currently being executed, (ie RUN), try the following program if you don't know what I mean.

```
10 PRINT PEEK 23637+256*PEEK 23638
20 STOP
```

Taking this a line at a time, line 10 should just print the kine at which lines 20 starts, line 20 does nothing, it is just being pointed at!
From the last time we know that this address, and the next one, should give us the line number then PEEKed, so try the following line.

POKE 23796,39: POKE 23796+1,15: CLS: LIST
(if you got a different value back in the first program to 23796, then replace 23796 with that value in the line above, twice)

Now you will see that line 20 has now changed to line 9999. As we saw last time, the line numbers are stored most significant byte first, so 15+256*39=9999.

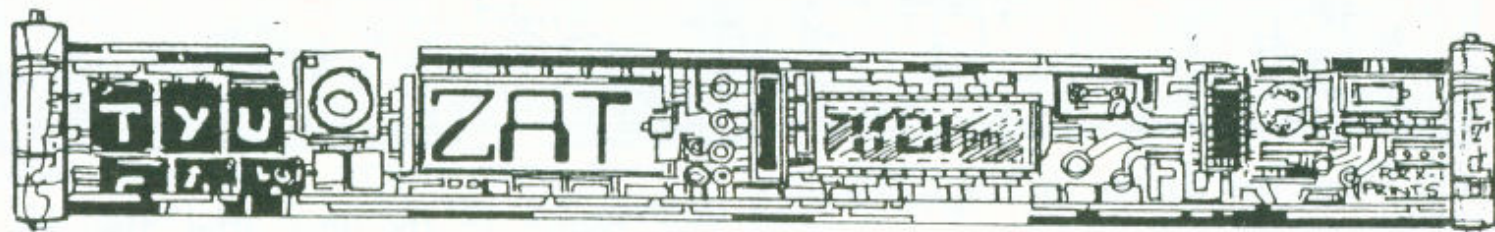The best use of NXTLIN is in the storing and calling of machine code routines in REM statements. eg.

THE BRIEF..

You want two machine code routines in REM statements to save and load a headerless SCREEN$

SAVER

Now I'm assuming that all you people are in 48k mode, right done that? Now I'm entering this:

8000 PRINT PEEK 23637+256*PEEK 23638+5

8010 REM ***************** (16 *'S)

When RUN this program gives us 23809, (if you have no extra equipment such as a microdrive, connected to your machine). Now enter this following COMMAND, NO LINE NUMBER!

FOR F=23809 TO 60000: INPUT A: POKE F,A: NEXT F

When entered type in the following set of numbers, in order, without the comma's, one by one, after the 999 the program will stop.

62, 255, 17, 0, 27, 221, 33, 0, 64, 55, 205, 194, 4, 201, 17, 7, 999

Now change line 8000 to read:

8000 RANDOMIZE USR ((PEEK 23637+256*PEEK 23638)+5): RETURN

Now a GO SUB 8000 will cause a SCREEN$ to be saved to tape. Try it. If it works, SAVE a copy of this program to tape or disk, VERIFY it, and NEW.

LOADING ROUTINE

Enter these two lines:

9000 PRINT PEEK 23637+256*23638+5

9010 REM ***************** (16 *'S)

When RUN this gives us 23809, (again!), so enter the same command, again with no line number:

FOR F=23809 TO 60000: INPUT A: POKE F,A: NEXT F

Now another set of numbers can be entered the same as last time, but different numbers of course.

62, 255, 17, 0, 27, 221, 33, 0, 64, 55, 205, 86, 5, 201, 17, 7, 999

Now change line 9000 to:

9000 RANDOMIZE USR ((PEEK 23637+256*PEEK 23638)+5): RETURN

Now MERGE "" and play the tape on which you recorded the SAVE routine, the resave the whole shebang onto a tape, or indeed a disk. (Help! Barry Norman!)

I'll leave you to add a suitable menu bit, etc. I haven't enough room left to describe how either the LOAD or SAVE routine swork, besides it has nothing to do with system variables, so some other time okay? Like next year!

And so reach the end once again. If you have any problems, programs, or ideas – then right to me, Steven Kemp, C/o ZAT, PO BOX, 488, Tweedale, Telford, Shropshire, TF7 4SU.

(Note from David Ledbury: If you want to probe the LOAD or SAVE routines in more depth, try to get hold of the Spectrum Programmers bible, "The Complete Spectrum ROM Disassembly", by Doctor Ian Logan. This is the most useful book you could ever get, as it details the in-depth workings of the 48k Spectrum ROM.)

QUASAR-THE SPACE LASER ATTACK GAME

Gary looks anxiously across the dark, smoky set, waiting for the slightest movement of his enemies. His sweaty finger is ready on the trigger of his laser gun. Around him his fellow team mates are whispering nervously, but above all of this is the pounding music of Jean Michelle Jarre. He looks up from his cover, and several laser beams are fired at him. But they were poor aims. Gary ducks and laughs. This is to be the start of some fun, and Gary knows it.

This is QUASAR, the high tech shoot 'em up game which is rapidly growing in popularity across the UK. The idea came all the way from Australia and it was there where the first QUASAR 'set' was opened. Since then, the game has been brought to the UK with little changes, except that the weapons have become a lot more realistic and futuristic in it's looks. With QUASAR 'sets' opening in old disused Cinemas or new Ten Pin Bowling alleys across the country, QUASAR could either become the team game of the 90's or a fad like the BMX of the 80's.

The first thing you do is pay at the desk. This cost two pounds. After you have payed you are given a plastic card. This is your receipt which you give back to the 'instructor' later on. On your plastic card you will find the number of the game you play in, be it one, two, three, etc. If your game is not yet available you must wait for it to be called on the speakers, there is a wait of about twenty minutes from one game starting to the next. I had no problems waiting a bite to eat and a session on the arcade machines was very pleasant indeed!

Eventually my game number was called and we were all asked to go to the instruction room. One by one we all poured in and waited for the instructor to arrive. Looking around I could see people of variable ages. There were plenty of teenagers and young men and women. Whatever young children were there were accompanied by their parents. When the instructor arrived we were told how to play the game and how to use the equipment and the basic safety rule-No Running!

The idea of the game is to gain points for yourself, and for your team by shooting the opposing players. The two teams Red and Green each have their own Energiser and Base. You have to go back to the energiser when you have been shot four times. When a Base is shot at by the opposite team then they gain a large number of points. The team work comes into play when you decide who is going to defend and who is going to attack.

The equipment is made up of a Body Pack and a gun. The Body

Pack has two sensors and a 'Buzzer'. The sensors are on your front and back while the 'Buzzer' is close to your stomach. When you have been shot the 'Buzzer', buzzes! You also feel it vibrate against your stomach, as sometimes you don't hear it due to the loud music. The gun has a readout screen showing you how many lives you have left before going back to the energiser. At the beginning and end of the game the display shows you the number of the gun. It also has a sound chip and loudspeaker and it makes various sound FX during the game. The gun also has a sensor on it. So you can't put your hand round a corner and fire without the risk of being hit!

Normally you can't see the beam that you fire, it only shows when you fire through smoke. So smoke is continually being pumped into the set. Also it's a little hard to hear your gun over the loud music.

Finally, we entered the QUASAR set. I took a long look around set. It was dark and already the smoke was diffusing. I could see two energisers, one for Red and one for Green. Above me I could see the scoreboard which showed us the points each team had. We were instructed to go to the red energiser, for I was in the red team. We were told that we walked in one entrance, pointed our gun at the device on the wall and waited till we heard a sort of heavy low pitched wave noise and then walked out the other entrance. We were then instructed to take our positions and wait for the game to begin. I watched my enemies take their positions as the smoke began to spread over the set. For a brief moment there was silence, and I gripped my gun tightly.

Suddenly, a blast of music sprung us all into action. I froze trying to work out what it was. I recognized it as Jean Michelle Jarre (Oxygen-Part VI) which was one of my favourite pieces of music. I smiled to myself, and sprung into action. To begin with I followed my friend around, covering him. I checked that my gun was in working order, which it was. Around the corner came one of our enemies. Immediately, my friend was shot. Our enemy turned and ran, aiming a wild shot at me. It flew past me and my friend ran back to the energiser. By this time I was not the most calm of people, I can tell you! I raced after my chosen enemy. As I flew around the corner I could see him hiding behind one set wall. He had his back to me, but I was not chivalrous at all. I aimed my laser gun at him and fired. I hit him at the device on his back. Immediatly, he spun around and fired at me. As his laser flew past me I yelled aloud in triumph, I had won. I raced around the set, returning to my energiser every so often, taking pleasure in every second of the game. When I was

hit the device near my stomach vibrated. If I hit someone my gun would tell me that it was a good shot! Soon though, the game finished and my gun thanked me for playing QUASAR and told me to return to the energiser.

To say I enjoyed it was an understatement, I loved it! The adrenelain was flowing and I could feel my heart beat with ease. My body was sweating all over and I felt a great sense of achievement as me and my team mates congratulated each other. We won the game by two points and I have rarely felt happier in all my life.

QUASAR is a great game, with the right balance between skill and determination. I almost fainted in disbelief when my friend told we were playing for roughly 15 minutes! It only felt like two! A nice thing is when you collect your scoresheet at the end and see how well (or bad!) you have done. The scoresheet tells you who you hit, who hit you and how many times. It shows your point score, the highest, the lowest and average. It also does the same treatment for the percentage of shots that were on target, so there's no arguing about who is the best shot!

All in all it's a great game and for two pounds offers excellent entertainment and value for money. You can't help but miss QUASAR and from now on it is

THE enterainment form for me! Check it out,now!

By Joseph Crawford.

AD RATES

SUBSCRIPTION SERVICE!

NEWSFLASHES

Compiled by D. LEDBURY

Prince Released!

Prince of Persia, the SAM game which seems to have got the mainstream mags jumping off the shelves in favourable comments, should now be available from your local SAM dealer. Keep your eyes open, as this game really does live up to the hype, as the ZAT team saw recently on a trip down to Swansea.

Manic Surprise!

Few SAM owners will know of the game that the one-time ZAT Technical "whizz kid" Matthew Holt has been working on recently. However, now the contracts between the 2 involved software houses have been agreed on – I can reveal that Matthew has been working on the SAM Version of the Classic Spectrum game that launched a thousand clones - Manic Miner!

The SAM MM, is naturally bigger than the original versions – although unlike the 16 Bit version (programmed by the original author, Matthew Smith!), it sticks closer to the layout of the original. One complaint that 16 Bit owners have told me about their version, is that it was ruined by being far too big, and unplayable for it's own good. This is not the case with the Coupe version!

Everything has been improved: The control is smoother, the colours more colourful (naturally!), the sound (will be) much better than ever before, etc.

I can't give too much away, as I have helped in some minor capacities, but Matthew is confident that it should be complete in about 2 months max, so we may get a full review in issue 11 or 12!

For fact fans, the coding is by Matthew

Holt (and is totally original - not a Spectrum port!!), the graphics are by Brian McConnell (Integrated Logic/Asphetix), Sound by Fratiska Fuka, and some suggestions and level designs by David Ledbury (that's me!).

Keep tuned to ZAT for details!

Fred goes soft!

Colin McDonald, Editor of the long running SAM Disk Fanzine - Fred, is currently working on his first SAM game. This title, written by one of FRED's best known writer's Steve Taylor, is called Impatience, and contains 2 games: Triltex, and the Viking Game. Triltex can be best described as a puzzle game, in the vein of Dragon Tiles/Shanghi, although it is extremely more playable, than these other two games. The Viking Game is an odd draughts meets solitaire type game.

We hope to have a review next issue, although we can already tell you that the cover art should be ok(ish) as Darren has been asked to do it!

More SAM Software

Revelation have released details of a new puzzle game for the SAM, which is their first game from Czechoslovakia. The game, entitled "Hexagonia", is described by Alan Miles as "Fiendishly difficult" and has had to be supplied with a "trainer" version to make it easier to get to grips with!
The game is due for release in September, at the All-Format Shows, and is priced at a mere £9.99

Cornet, the new SAM Assembler from Revelation, is also due for release shrotly. It is priced at around £30, and is full of a variety of features. More in next issue!

Another SAM title currently underway, is a updated version of a rather odd Spectrum game SPLAT! This game, written originally by Ian Andrew (one of

the Freescape team!), is one of the simplist but most playable Spectrum titles ever.

The game is being converted & updated by Colin Jordan, and is likely to be much bigger than the original! (And that's pretty big, I can tell you!)

Additionally, Chris White has expressed an interest in doing a SAM verson of the hit game "Lemmings" as his next project.

Lemmings is one of those games, that is almost worth buying an Amiga, ST or PC to play, as it is that good!

He hasn't started the game yet, but I feel confident that he can do an excellent job of a SAM version! (I hope so, as I'm hooked on it, after only seeing it once!)

SAM BASIC gets a boost

A contact has revealed that a team of talented programmers is currently working on a SAM BASIC Compiler. Although we have not seen a working version, we are reliably told that it should even out-speed Master BASIC for certain operations. An example we have been given, was a sort that took 6 seconds with prepared data in Master BASIC, would take 3 seconds using this compiler and unprepared data!
More details as we get them!

David goes on a Quest!

I am setting up a new label, dedicated to both the Spectrum and SAM Adventurer, entitled "Quest". My first launch is due soon, but I'll give more information in issue 11! However, if anyone is at the October 26th Adventure Probe Convention, then you may see something sooner!

All "Quest" titles on the Spectrum, will appear on +D/Disciple disk, or on cassette. Prices will range from £4 to £7, depending on title and medium.

If you have any Adventure, or "thinking" game for the Spectrum or

SAM, and would like it evaluated, send it in to me – via ZAT.

Happy Birthday SAMCo!

As many SAM owners will know, SAMCo has just passed it's 1st year of business. To celebrate this, they have relased details of a special birthday pack, priced at a mere £20.

The pack contains numerous goodies: a specially commisioned T-Shirt by Robin Evans (the one who designed the Robot!), some exclusive games, some demo levels of "Hexagonia" (see above), various goodies from disk magazines, and many other goodies including, we hope, a version of Matthew Holt's disk utility Humphrey, and a special offer from ZAT.

The pack is a limited offer, so send your orders in as soon as possible! The pack is due for release on September 14th.

More birthday pressies!

To celebrate SAMCo's first year, they have announced details on the new prices for the SAM.

For the normal price of £199.99, you will now get the SAM 512 (as the expanded machine is now reffered to), which is a standard 256K SAM Coupe, complete with the additional 256K memory. For those of you who have not yet ungraded to a 512K machine, you can buy the 512K upgrade for £29.99, instead of the former £39.99 price.

This new package should be an encouragement to anyone buying a computer over the next few months, as they can now buy a 512K computer for under £200. Additionally, if all current owners upgrade, then all software can be designed to use 512K, and not just 256K!

SAMCo believe that this will encourage more sales over the Christmas period, which will in turn lead to much more software titles!
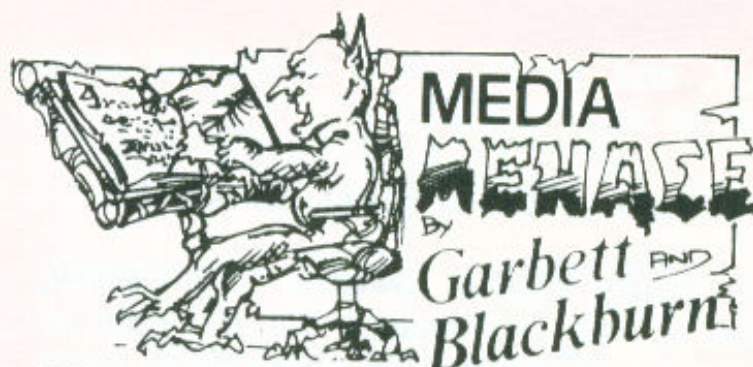
Wait-a-minute! I suppose your're wondering [or not] where Comic Kiosk is? [I hope]. Well, in a bit of a compromise, myself and Mike have decided to combine both our sections together, and add the occasional video/film news and reviews too. I hope you all like this new direction, and we're very eager to hear your views on this new approach to reviewing..

My esteemed partner is [Snoort]. As I was sayi.. [Snort, Snnoggimmm!!]. MIKE, will you please wake up this instant: there's a lot to get through this issue, an I'd appreciate a bit of assistance. So far all you done is sat there, head lolled back, asleep, snoring like a mutant turtle with a sore throat![Watch it you wall-less bounder].

Well folks we have got some real goodies for you this time so here goes. First off we'll start on the vids. I struggled hard to find movies that are linked with the general aims of the 'zine, these are my favourite ones for this session.

THE FLASH

This film was not released through the cinemas as it is the pilot for the television series [which has gained top marks from the clean up campaigners at the rate of 45 violent acts per hour]. If fact due to this and several other reverberations, the series has apparently been dropped from the new year

the early 50's. The Flash character in this prequel, and the series, is based on the 2nd incarnation [there have been 3]: Barry Allen, a Police chemist who is struck by lightning and takes a dip in a chemical vat at the same time, and thus finds he can run "faster than a speeding train" (in the same way a Man of Steel can).

The Flash is not going to be a classic masterpiece, the plot is not in anyway original and trying to make the Flash look like a fast-working Batman does not really work. It's a pity that the producers of the Flash didn't opt to include more comedy as this is the area that the film is strongest, the hero's dog is a surprise star.

The comedy element, as I say, is the strong point in favour of this movie and has a range from satire to total farce. Although this is not the greatest film ever made it has some impact and for that reason should be watched.

Speaking about funny films I have no reservations about telling all of you to rent or buy (or beg, borrow, steal, murder or sleep with your landlady for) SPACED INVADERS.

Now this is just plain old fashioned farce, full of some of oldest and driest cliches I have ever seen. But, at the same time it contains some of funniest one-liners I have ever heard, e.g. 'Listen up kids. 3D and driving don't mix.' Also included in the film are some fantastic visual gags and pearls of wisdom such as, 'They're not evil, Dad, just stupid.'

Don't hesitate, don't even finish reading, this just get the damned

Another film that features a comic bookhero(?), also released straight to video, is THE PUNISHER. Comic fans may recognise this as a Marvel Comics anti-hero, created by Gerry Conway, stal-wart writer for Marvel's Web Swinger, and who lately has become Producer for the Father Dowling Mysteries.

HAVOC & MELTDOWN

Now it's time to review the latest releases from the Marvel UK stable: Meltdown and Havoc. Havoc and Meltdown are both under the £1 bracket, and like their predecessor, Strip, both rely on re-printing material from comics that originally were available in the USA only. Havoc is a weekly, showcasing Deathlok, Robocop, Starslammers (to be re-placed by Alien Legion), Ghost Rider and Conan.

Both myself and Mick think that Starslammers is the best strip, although to be fair, in major parts its a vast waste of potential and ideas. Going down the evolutionary scale, Conan is dire (a baby-faced Conan? Come on!), and the rest should be left out to pasture, although I hope Deathlok will improve in months to come.

Meltdown is aimed for 'mature readers', and is a Monthly anathology of The Last American, Clive Barker's Nightbreed, Light and Darkness War, and Akria. There's also features on computer games, films and LRP games. Arkia is a great disappointment. Starts great, first two pictures brilliant, and then its as if the lights went out (in the writers brain?). The light and Darkness War is decidely worth reading and watching the progress of definate potential for a future classic. The Last

Lastly Nightbreed: Clive Barker fans may like it, but where's the gore? Overall, Meltdown is the emerging winner so far, although Havoc needs a bit more oomph!! Now I think Mick's ready to utter a few dozen syllables, or bulls in his case, for this issue collection of books..

First off is INTO THE OUT OF by Alan Dean Foster.
I expected great things of this novel as ADF is one of the best SF/Fantasy writers at the moment. This novel instead of being set in some distant future or on a remote world, takes place in the present. ADF merges his SF ideas with Maasai mythology to produce a rivetting novel of action and mystery.
The action centres around an FBI undercover agent who becomes embroiled in an attempt to stem an extra-dimensional invasion.

Next is SASSINAK by Anne McCaffery & Elizabeth Moon. This is a disappointing book to come from AM, as it turns out to be not the first in ma series but an extension of AM's novel Dinosaur Planet, it also seems very similar in concept to PIERS ANTHONY's BOIO OF A SPACE TYRANT series. Sassinak is a woman who, as a child, is captured by 'space pirates' and used as a slave until her rescue by the forces of law and order. This leads to her joining aforementioned forces of law and order to wage a personal vendetta against the 'space pirates' (YAWN).

Thanks Mick. Now go back to sleep, since it seems that that last review has robbed your few remaining brain cells of their life-giving oxygen. But 'hopefully' he may recover soon, and both Mick and myself will reconvene

Although ZAT has run a number of competitions, up to now they have all contained relatively small prizes - that is, until now!

Thanks to the generosity of Colin Jordan, the esteemed head of Revelation (SAMCo's software division) and the programmer of the acclaimed adventure, "Famous Five", we now have a slightly bigger prize to offer our loyal readers!

What would you say, to a copy of every single game released by Revelations, to this date?! Not at all bad, eh? But how about if it included all of Revelation's titles: PAST, PRESENT AND FUTURE!!

How do you win this Mega Prize? Well, it's quite simple really.....
In the "Famous Five" adventure, Timmy the dog, is apparantly unable to say anything, other than normal "doggish" noises (Woof, etc). Colin says, that on the SAM version, there is ONE particular circumstance when Timmy will say something intelligible in human volcabulary. (ie, speak in English!)

Tell us the EXACT circumstances, in which this will occur, in enough detail for us to duplicate it exactly.
We do not know the circumstances, and in fact - only Colin knows, and obviously he's not telling! So therefore, the only way we can tell if the answer is correct, is by trying out your solutions ourselves!

There is no closing date to this competition, as the first correct answer will win. So this competition will continue until a winner is found. BUT DON'T DITHER!

Send your entries to our usual address, marked "ZAT/REVELATION MEGA COMP".

(Appologies to Spectrum readers, as Revelation only deals with SAM titles.)