

The Thirty-first

# WAGGI

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PHONE (01) 898 1090

Conceived and Founded by

JEFF WALKER

**REGULARS**

THANK & STUFF ..... 1  
FAIR COMMENT ..... 4  
AUNTIE JOHN'S DIARY ..... 18  
SIMSPOT ..... 24  
WACCI ON LINE ..... 21  
A PASSING THOUGHT ..... 12

**PROGRAMMING**

VERY BASIC BASIC ..... 14  
BANK MANAGER ..... 26

**REVIEWS**

FLEET EPROM BLOWER ..... 30  
MINDING THE STOCK ..... 12

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DISTRIBUTED BY ..... Accident

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APRIL FOOL!

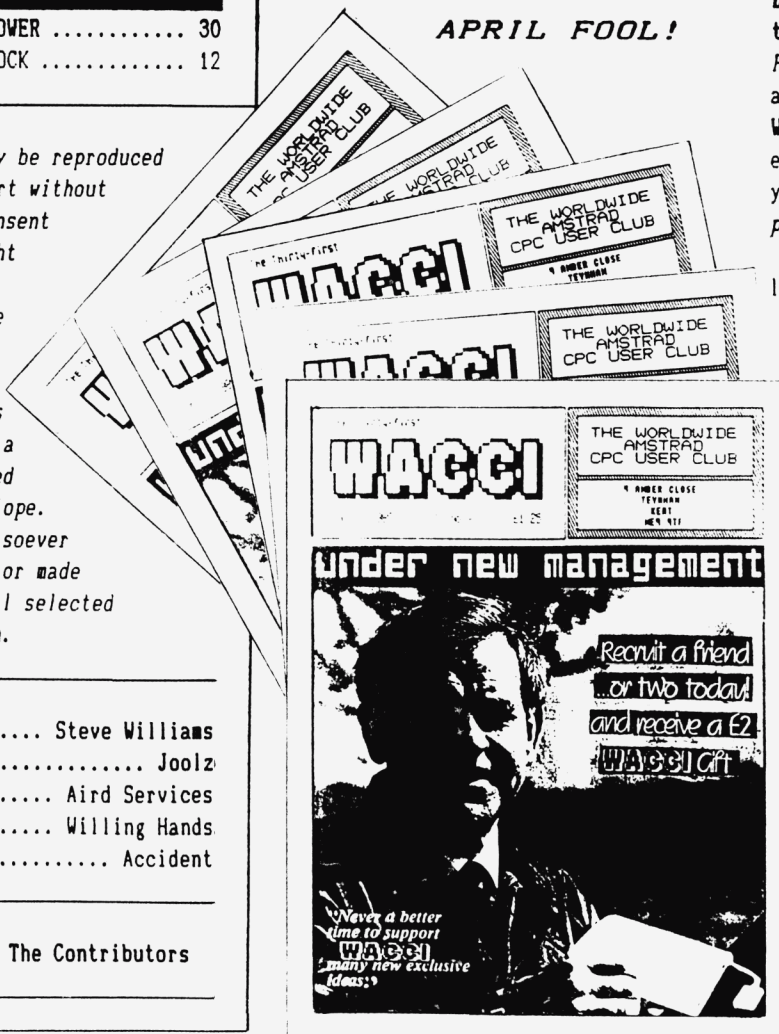
Did you like WACCI issue 30.5? Did you think WACCI had been bought up by Focus Publications? Come on, be honest and own up. How many of you thought WACCI had been passed on to another editor. How many of you said to yourselves "What the flip?? I'm not paying £1.25 a month for that thing!!"

Well if you didn't then a heck of a lot of other people did. Crikey, the phone never seemed to stop up here at WACCI HQ with worried subscribers wondering what had happened. So many people having to resort to wearing incontinence pads in their undies.

Thanx to all those people who phoned and when they found out they'd been "had" took it in the right spirit. Not one of them grumbled (there's always next month's Fair Comment letters for that I suppose.)

WHAT??

For those of you who are reading this at some time in the future (eg you're reading a back issue) or your a new member or this is a sample copy that you've ordered. You're probably wondering what I'm going on



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about, I'll let you in on the secret. I've just played an April Fool on the entire membership of WACCI. After month's of moaning, about the amount of work that preparing the mag every month involves, last month I hinted that I might be thinking of handing the job over to someone else. I left it at that. Then at the end of March I sent out spoof, four page, half size WACCI's (pictured on the previous page) edited by a fictional character called Gordon O'Donnell (check the initials) who was more interested in Amigas and bird watching than CPCs.

### INFO

For the record, that gag was three month's in the making and only five people, including myself, knew about it before we cracked it.

### GET ON WITH IT

OK, a jokes a joke but I think I've waffled on about it long enough, let's get on with Thanx and Stuff.

### TELECON

*Hip Hip Hoo Rich Tea.* After a two and a half month wait BT have finally connected WACCI's (01) 898 1090 phone line. Nice going BT, I hope you won't expect to be paid for your cock-up. They probably will you know. OK, watch this space for the next instalment of the "Great BT Fiasco."

### WHOOOPS

In last month's Playing with Protext, Peter Ceresole went to extraordinary lengths to explain in detail how to get your printer to produce your signature. At the end of the process

Peter proudly announced *"and the finished result looks like this:-"*

and there was nothing but a blank space. How did this happen? Ahem, my mistake again. Sorry Peter, sorry readers, let's have another go at it:-  
*"and the finished product looks like THIS:-"*

*Alcorante*

Yup, I got it right that time.

### THANX

Loadssa pepes to say thanx to this month, if I miss anyone out please don't take umbridge. Thanx to:-

*Joolz*, who as usual has been running around doing all the real work at WACCI HQ while I sit out sunning myself in the back garden with a tin.

*Keith Pomfret*, for setting me up with a 3.5" extra B drive. Loose FSW software orders are just that bit easier to do when there is an 800K

storage device stuck on the back of your CPC.

*Frank Frost*, (yes that's his real name) for slaving away down there on the Isle of Wight. He's busy configuring half a ton of CP/M (yawn) programs, that I threw in his direction. Look out for VDE265 in the near future.

*Richard Burton*, who is still working away at the survey results down there in Cornwall. Talk about service above and beyond the call of duty, the man has now volunteered to produce an index to WACCI from the very first issue, whattaman! (oops, a screamer)

### FOR SALE

Maxam II, CP/M disc, all complete with box and manual: £25 or part exchange for Silicon Disk.

Peter Ceresole

(01) 878 0391 (evenings)

*Clive Bellaby*, for phoning up and asking if he could do anything to help with the WACCI workload. Thanx also for the programs he sent in, they'll be in the FSW list soon.

*Paul Dwerryhouse*, for this month's front cover. I didn't get the joke till I'd studied it for about five minutes. Very subtle Paul.

*Joolz*, once again, for the front cover of WACCI's issue 30.5. It creased me up laughing whenever I looked at it.

*All those people* who rang up or wrote in asking me not to pass the Ed's job over to someone else and offering to help with the workload. I don't know for sure but it may have come to that. Don't worry though, I won't pass it on to Gordon O'Donnell.

### SURVEY

Yes it is *still* not too late to send in the New Year Survey forms to Richard Burton. This is your last chance, Richard has promised to write an article about some of the things survey uncovered and so a deadline has got to be set. That deadline the end of April. Please get the completed forms back to him before then.

**WACCI TELEPHONE HELPLINE**

CLIVE BLACKMORE (04536) 71686  
Basic programming.

STEWART PEPIATT (0245) 353903  
Basic and m/code programming,  
DMP2000, VDE, Scrivener.

PETER CAMPBELL (041) 5544735  
The WACCI Scottish connection

If I get reports of this helpline being abused by software pirates I will scrap it without any further discussion - Ed

**IN ISSUE THIRTY ONE**

This month sees the final part of Alastair Scott's marathon series Bank Manager. Rather than keep publishing it in a piecemeal fashion it gets three and a half pages to finish it off in a blaze of glory.

The Cunning Canadian has returned to write this month's WACCI On Line. He is more than capable of explaining

where he's been hiding for the last six months, so I won't try.

Propergander is missing. It's no fault of Scoop Grainger, simply down to lack of available space again.

**MEMBERSHIP FIGURES**

Yup, April the fifth marked the first year of my stint as WACCI's Editor. In that time I'm pleased to report that the membership figure has more than doubled. Yeah, *amazing* isn't it? The membership graph on my wall just keeps on going up and up. Where will it all end I ask myself? WACCI PLC? (that stands for *Phenomenally Large Club*.)

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Get this 16 page introduction for £3. Use on CPC, Beeb, etc with notes for Commodore and Spectrum. Cheque, PO, or wee parcel of three coins to:-

J Taylor, 18 Seahill Road,  
Hollywood, Co. Down BT18 ODA

**THE FSW LIBRARY**

Not an incredible amount of changes in there this month. That's not because we haven't been sent any programs, it's down to the fact I haven't had

the time to test the programs. Thanks to all the people who have their programs waiting in the wings.

OK, don't shout. I know you're right, if I spent less time playing silly practical jokes and more time concentrating on the keyboard I could get all these things sorted out properly. I'm sorry, I promise not to do it again (*for a while anyway*.)

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**KEITH POMFRET**

For all those of you who have phoned me up over the last couple of weeks asking where Young Keith Pomfret is. At the moment he's in the process of moving house due to his taking up a new job. This means he is very busy and consequently he is "*incommunicado*" for a while. He reckons that he should get a telephone line connected up to his new accommodation within a week of his moving in (ouch! I think he may have a salutary lesson headed his way if he keeps saying things like that.)

So all of those of you who can't get hold of him at the moment, don't ring me and ask for his new number because  
a) I don't know it either.  
b) I don't give out info like that unless the person has given me prior permission.

**THE END BIT**

And now, the end is near and so I take my final curtain. Damn I've run out of space again. It's a pity because this month I was going to tell you all about Romeo and Juliet by Prokofiev, in particular the Montagues and Capulets which are amazing.

I'll just have enough space to tell you a joke instead. OK, so there's this man and his wife who go on holiday to France. On the plane the man

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# FAIR COMMENT

FAIR COMMENT  
9 SOUTH CLOSE, TWICKENHAM  
MIDDLESEX TW2 5JE

## HOLIDAY 89?

Dear Joolz,

1. How can you mention Floyd without mentioning 'Wish You Were Here'?
2. Is it true you are a teacher?
3. What do you see in Steve?

Auntie John  
Bangor

<<Dear Auntie, 1. I would have written reams more about Floyd but Old Grumpy Guts keeps badgering me to keep the replies succinct. 2. Yes, I am a qualified school teacher with an honours degree in biological science which is probably why I'm currently teaching art. 3. God knows! -Joolz.>>

## LOADSSA BAGS

I'll have to keep this quick as I'm a bit rushed tonight. I've enclosed a load of jiffy bags for you, all of them have only been used once and are in excellent condition. Are they of any use to you?

Sorry about the terrible writing but my printer is out of action. It got damaged when we were burgled a few weeks ago. The robbers left Arnold behind though? Their hands were probably too full with the video, TV, CD player, camera, jewellery etc.

Sean Keogh  
Forest Gate

<<Many thanks for the Jiffys Sean. They will certainly come in handy when I help The Boss (Old Misery Bags) with his orders. I hope that you've had some positive news about your sad burglary -Joolz.>>

## SATURDAY NIGHT CLIVE

Life is strange. Just when you thought it was safe to open the morning post, life kicks you in the teeth with one of my letters. It has been quite some time since I put finger & thumbs to keyboard, what with re-roofing the

house, laying new floors, re-wiring and tidying up the mess to stop her indoors from moaning.

I have read every issue of WACCI and without doubt it's the best magazine on the market. Where you find the time and energy to keep producing such high quality work is beyond me. It takes me hours to write a short letter. I appreciate the amount of hard work time and effort that goes into each issue. Please advise if I can help you with any of the work.

I am aware that you prefer letters to be sent on disc, can you provide a letter writer's guide detailing how you like letters presented, including such details as column width, spacing etc. A quick tip for anybody out there writing to Steve & Joolz using Pyroword. Save your file to disc with compress off otherwise unwanted control characters show up when Protex is used to read the file.

The Post Office have again added to my problems, another week to wait before Wacci drops through my letter box. Have they no consideration for my finger nails? Can I sue for damages?

Please add my name to the WACCI helpline, I can assist with Basic, CP/M, Wordprocessing, Tandy DMP-105. Can you add the helpline members home towns to the list so we can decide who is the cheapest to phone.

Many members seem to be ordering loose homegrown software, surely they cannot have worked out the economics of doing this. For example, 256K of loose software costs £5.12, for only an extra 38p they can obtain the whole disc (some 500+K of software) and they get a new disc thrown in as well. Why do they do this? Perhaps it's because new members do not know what is on the CP/M and WACCI discs. Cooee Joolz, how about making His Nibs go back to the old days and provide a description of each disc's contents. You know it makes sense.

Re: John Carney and the problem with

his Tandy DMP-105. Hi there John, I have one of these wonderful printers, good quality and cheap, although it can not spell very well. Your problem lies not with the printer but with the computer, which can only send seven bits of data to the printer, while the printer can and will accept eight bits of data. You'll need the extra bit to allow you to access characters above &7F. KDS Electronics, 15 Hill Street, Hunstanton, Norfolk, PE36 5BS, supply an eight bit printer port conversion kit for £20 including software which will solve this problem.

Clive Richard Bellaby  
Nottingham

<<Clive, I don't mind how you send in your letters, I just love reading them but if you want to make me a very happy lady here's the recipe for my ideal Fair Comment letter.

It's one saved in Protex's document mode with a 38 column width, no tabs, no control characters, no exclamation marks, no sentences in upper case and spelling checked if possible.

Having said all that I realise that I have probably just alienated about two thirds of the WACCI membership. DON'T PANIC! If your setup won't allow you to do all that, send your letters in anyway (Phil Morely always sends his in on the back of an old cigarette packet in orange crayon?)

I've nudged DMG, in the appropriate soft parts, about printing out the disc catalogue on a regular monthly basis. He says that it's not always possible due to the demands on the space available in the magazine. I'll keep on nagging him about it and hope he pulls his finger out -Joolz.>>

## BRITISH TELLY CON

Many thanks for your swift attention to my last order and the patient subsequent telephone advice. Amsig, the Mandelbrot program, is the most

skilful piece of work I've seen in a long time.

Congratulations on your apparent success against British Telecom. Don't forget that the Citizen's Advice Bureau know consumer law inside out. If you get stuck they will save you an awful lot of legal fees.

John Wilkinson  
Rochdale

<<I think complete success will take a little longer John. So far all we have succeeded in doing is to get the (01) 898 1090 connected back again. Not bad after having to wait two and a half months eh?. Now we have to try and prise some compensation out of BT for all the hassle it caused (we like challenges.) Thanks for suggesting the CAB, it may be of use. Is there anyone else out there that can give us a few pointers as to how to go about getting blood from a stone? -Joolz.>>

#### RADIO GA GA

I would appreciate any information about software for amateur radio software for the 464 eg RTTY, morse, packet, amtor etc. Is any such s/w available via phone/modem?

J Carlile  
Wirral

<<Sorry Mr Carlile you've drawn a blank look from Misery Chops at this end. He says that he doesn't know where you can lay your hands on this type of program. Evidently it is around in the Public Domain and people keep promising to send him some in but it never seems to appear -Joolz.>>

#### INVISIBLE INK

Just a short note to say thanks for the quick response to my order for the cans of Ribbon Refresh, it's BRILL. It must be the second best item in my top drawer (I can't remember what the first is.) Refresh is a superb buy and I know that it's going to save me pounds on ribbons. I have even used it to re-ink a typewriter ribbon, it worked OK on that as well. It's so good that when my friend saw me using

it he asked if he could borrow it to re-ink his printer ribbon. I haven't seen it since, hence the enclosed order for another can.

Does anyone know how to put a 12 volt connection onto a CPC 464 colour monitor or does anyone have a colour monitor that would work on a 6128? I would be willing to swap a CPC 464 plus monitor and user guide all in perfect working order or pay cash for a 6128 monitor.

I'm sorry to hear that Steve is thinking of giving up the editorship of WACCI. In the time that he has been doing the job I think that he added enormously to it. I congratulate him on an excellent job well done.

Mind you it looks like WACCI may not have to look too far for a new editor to replace him. I think Joolz should have the job as the young lady seems to have made a very good job of Fair Comment, thank you Joolz. I like the way she compiles all the letters and then adds that little bit of humour to them in her replies i.e. old Cheerful Charlie has just walked in so I have to say nice things about him. Reading Fair Comment makes my day.

My subscription is due for renewal in April. It will be sent of to you promptly. I couldn't survive without my regular shot of WACCI every month. Many thanks also to all the members that make the club what it is.

All the best to you both and take care.

Derek Edwards  
Perry Vale

<<Believe me Derek, a sense of humour is essential when you are forced to work with old Cheerless Charlie. Still I'm delighted you are so happy with WACCI. We do try our best. *Editorship?* Time alone will tell -Joolz.>>

#### XXXX (CASTLEMAINE)

Greetings from the sunny "Down Under" Australia. Your January number arrived safely and has been fought over by my two sons, who, as usual, want to buy everything advertised. I have a few items you may feel are suitable to share with our fellow members.

FAIR COMMENT  
9 SOUTH CLOSE, TWICKENHAM  
MIDDLESEX  
TW2 5JE

1. I use a key routine based on the CONTROL key. I also have a new CPC 6128 because my old one stopped and the new "board" does not fix it as Amstrad have upgraded the workings. So when the keyboard lost half its doings (lower case, enter etc.) I was alarmed. Now I know that CONTROL plus CAPS LOCK, struck together, did the damage. To restore, press the guilty pair again and then CAPS LOCK by itself, phew.

2. To recover when you accidentally erase a wanted programme:

```
POKE &A701,229 (User 229)
CAT
LOAD "name code"
POKE &A701,0 (back to User 0)
SAVE "name"
```

3. To remove unnecessary spaces in a listing

```
POKE &AC00,1
```

This only functions when a listing is worked through using AUTO, using "SYMBOL AFTER 32" then SYMBOL 32,0,0,255 to show the spaces is one way to see the difference this poke can make in a test run. This poke, by itself, has saved several Ks when I used it on old listings on my discs.

4. I have discovered MAX and MIN can be put in one statement to set the upper and lower limits of a variable, eg. when drawing  $x = \text{MAX}(10, \text{MIN}(X, 630))$  This removes two "IF...THEN" lines and is another space saver.

5. Changing hex numbers into normal decimal ones I can understand eg. PRINT &A23F may result in a frustrating negative value. Solve it with PRINT 65536+&A23F memory position 41535 is easier to understand than -24001 or &A23F

**PENPAL WANTED:** Is there someone who likes the commercial magazines (Amstrad Action, Amstrad Computer User

etc.) who would be willing to send them to us every two or three months?

All postage and packaging costs will be sent by return mail. Out here we do not know what magazines are appearing on the English paper stands. I like doing type-ins and learning refined ways of programming in the Basic language. Finally, making waves:

```
10 MODE 0:DIM a(30),b(30),c(30)
20 FOR n=1 TO 30
30 a(n)=(RND*60)/n
40 b(n)=RND*6
50 c(n)=INT(RND*3)+1
60 NEXT
70 FOR x=0 TO 640 STEP 4
80 PLOT x,0,0: y=10: k=6*x/630
90 n=1: FOR a=1 TO 10: n=n+c(a)
100 y=y+(a(n)*(1+SIN(n*k+b(n))))*2
110 DRAW x,y,a
120 NEXT
130 PLOT x,400,0:y=390
140 n=0: FOR a=11 TO 20: n=n+c(a)
150 y=y-(a(n)*(1+SIN(n*k+b(n))))*2
160 DRAW x,y,a MOD 15
170 NEXT:NEXT
180 GOTO 180
```

Elizabeth Janson  
P.O. Box 97  
Red Cliffs  
Victoria 3496  
Australia

<<It's lovely to hear from a fellow female CPC user Elizabeth, there seems to be so few of us that are prepared to stand up and be counted. We have just "made" your waves Liz and they're great. The Australian waves seem to be a lot bluer than their browner counterparts found in the waters around the British Isles.

Please keep me in touch with me about your penpal response -Joolz.>>

#### SIMPLE SIMON

I've just read my first ever issue of WACCI, Issa Brilliant! Keep up the excellent work, WACCI's a real mag not a drag like some I could name here but won't (eh? eh?) Being new to WACCI I would like to appear thick for a moment (It's not difficult with my handwriting) and ask who this Joolz person is?

I read that Mr Priestley was having trouble with getting 5.25" drives to work with his CPC. I have just got an 80 track, double sided job from a company called Cheshire Micro Design for a fraction of the cost of the KDS and Siren ones (£50 including power supply and leads.)

If he is having trouble with software compatibility then look no further than good old Colin Harris of Nemesis. He has the answer with his patch address. It allows you to run programs on drive B under 80TRK as well as AMSDOS. Colin is currently adapting his software to format and copy to 80 tracks. I'll let you know if he's successful.

How about an article on CP/M+ for idiots like myself. In the meantime, how can I get Newsweep to auto-boot when I type !CPM? It's easy with 2.2 but I haven't figured out how to do it with CP/M+ yet.

Hope you can read the writing in this letter because I can't.

Simon Simpson  
Ilkley

<<Hello Simon, I'm Joolz and you can tell me from The Boss (DMG) because I have the ability to smile, be pleasant to people, make a decent cup of coffee and spell correctly. Every month it is my pleasure to edit these Fair Comment pages on your behalf.

A quick answer to your problem. To get Newsweep to auto boot. Copy SUBMIT.COM over to your CP/M (yawn) working disc, create a one line ASCII file containing only NSWP in it. Save this onto the disc as PROFILE.SUB. Now whenever you boot up !CPM (yawn) it automatically goes into Newsweep.

I agree with you, it would be nice to have a few articles to help new users of CPM (yawn.) The trouble is that someone has to write them first. John Keneally wrote some excellent articles about the subject many moons ago but he seems to have gone quiet lately (he probably fell asleep after writing the last one.) Perhaps if we all shout loud enough we might manage to wake him from his fitful slumber and get him to start scribbling again.

To be honest I don't think there's much to be written about CP/M (yawn.) My heart always sinks a little when I see yet another new series about the subject starting in one of the big magazines. After all it's only a Disc Operating System, it either works or it doesn't. People don't wax lyrical about Amsdos do they? -Joolz.>>

FAIR COMMENT  
9 SOUTH CLOSE, TWICKENHAM  
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TW2 5JE

#### ITMA

What's this? More than one letter from Clive Bellaby in the same month? Well why not?

On the enclosed disc I have included an upgraded HARDCAT.BAS. This version includes:

- Automatic disc format detection.
- Choice of Epson, Tandy or default printer.
- Printer on-line test.
- My name.

I have also included two simple reaction test programs.

**REACTION.1:** This tests your reaction time to a displayed message.

**REACTION.2:** This times how long it takes to correctly type in the displayed word and is aimed at improving typing speeds. Both programs are well documented and can be used as a building block for those who wish to add graphics, sound etc.

Clive Richard Bellaby  
Nottingham

<<Thanks Clive. The Boss doesn't like the reaction programs because, over fifty goes, my average response time turned out to be 0.16 of a second (best was 0.11) whereas his was 4 mins and 52 seconds. I can't print verbatim what he said about Reaction.2. Suffice to say his little fingers were dodging around the keyboard at the speed of light but he couldn't find any of the right keys. I haven't had such a good chuckle for ages. Eventually he walked

away muttering "it's a stupid bloody program anyway" to himself.

We'll put the HARDCAT upgrade in the FSW Library as a direct replacement rather than HARDCAT 2 -Joolz>>

#### AT LAST

WACCI issue 30? It's "probably the best" cover you've had for ages. You don't read 2000AD do you? I do, it's bloody great!

Enough of this, the real purpose of my letter is to order the back issues 12 and 18 of WACCI. The reasons I need them? Apart from nostalgia, I thought it was about time that somebody pulled their finger out of wherever they keep them and do a WACCI index (it's about time people like Phil Morely followed my example and realised WACCI is a user club and not a charity.)

I've started on an index already but don't expect it to be finished by, at least, the end of April.

Survey time again: Since the March issue went out I've only received another five forms, two of which were foreign. Can I ask all those members who haven't already returned them to me to send them in as quick as possible. As a former editor of WACCI said about this time last year "they don't mean a damn unless you fill them in." Talking about editors (as we were) I hope Steve doesn't pass on the editorship to someone else, as he said himself, it could result in disaster and anyway he's good at it. Issue 30 was probably the best WACCI ever.

Gotta go now, more pasty eating and Rocky Horror showing to do, oh yeah and I've got to write a letter to a suspicious sounding character called Steve Williams. Heard of him?

Richard Burton  
Cornwall

<<Williams? Never heard of him Richard, I'd advise you to steer well clear of him anyway. WACCI 30's cover was drawn by Auntie John's mother's father's grandchild's younger eldest sister, Andrew (or Andy as he's known to his friends.) It was striking, to say the least, wasn't it. You know who forgot to say thanx to Andy in Thanx

and Stuff last month so I'll have to do it for him. Thank you Andy. No I haven't read 2000AD, *OMG* has a subscription to the Beano though, is that something along the same lines?

A WACCI index right from issue one? Marvellous stuff. I'd like to thank you for all the hard work you are doing Richard. I wish there were a few more WACCI readers that would at least ask if there is anyway they could lend a hand with the club.

I've kept the next to last part of your letter hidden from *OMG*. He'd never get his head through the door if he ever did read it -Joolz.>>

#### CONFUSED?

Please find an order for some software and another six months subscription enclosed. Compared to the United Amstrad User Group The WACCI FSW Library is bad value. The UAUG's software is all free if you send a disc and return postage. Their magazine is very good, no funny stuff, just the way I like it and the way a computer newsletter or club ought to be. Sorry about all this.

Layaqat Ali  
Newcastle-upon-Tyne

<<Are you really so dissatisfied with WACCI Layaqat? Then why are you renewing your subs? If you don't like the articles in WACCI then when are you going to submit some of your articles? The WACCI FSW Library is bad value for money? Then why are you having to order it from us? The only reason that UAUG can afford to copy PD software for nothing is because hardly anybody ever orders it from them. Stick with UAUG Layaqat, their membership figures need swelling with people like yourself -Joolz.>>

#### OH LORD...

Much as I am appalled at the recent WACCI price rise (you now cost the same as AA, without colour, a smaller readers letters section and a smaller, less pages magazine) I enclose my subscription for another six months. I

will have to seriously consider your "value for money rating" over the next six issues.

Did you know last time I ordered some WACCI FSW software my clear, hard plastic, hinged disc box went walkies in the process. Please send me a replacement, as it is somewhere in your organ.

<<Middle part of this letter removed due to it's boring content -Joolz.>>

Lastly a tailpiece or two. Why is John Lewis telling people they can't use Maxell DD Discs in a CPC? Is it true that you can't use them?

Is there anyone clever enough out there to uncompress and make "Art Studio useable" the graphics from Pride Utilities Electric Lantern programme they are compressed and uncompressable from within the program.

I wonder if contributors of PD soft could add little preamblette to say what prompted the need for them to write their contribution to our library. Viz what they use it for and the various adaptabilities of said program.

Finally, an addendum to my errata, a complaint wearing size twelve boots. Does the person who wrote HARDCAT seriously think the printout will fit a disc box. It doesn't. Therefore it is useless. A three column CAT is what is needed a la the very elegant Masterfile III CAT Printout.

Phil Morely  
Peterborough

<<I sometimes wonder if you are living in the same world as the rest of us Phil? A smaller readers letters section? A smaller, less pages mag?

You're another one that I have to ask why you've re-subscribed? Let's look at the real facts, for a change, Phil....

I've just picked up the March issue of Amstrad Action and the March issue of WACCI and done a little comparison. In AA there are seventy-six pages in total, twenty-five of which are adverts. That means that 32.8% of that issue of AA was devoted to advertising and so 67.2% was actually turned over for articles. In the same month WACCI

had forty pages in total, six of which are adverts. That's only 15% of the magazine turned over to advertising but a larger 85% for CPC articles.

The self same issue of AA contains two and a half pages of readers letters whereas the March issue of WACCI contains eight. Come on Phil, surely you don't really need me to do the percentage breakdown figures to prove how silly your claims are?

Disc box gone missing? Sorry Phil, it didn't go missing, you sent it up to WACCI in an ordinary envelope rather than a Jiffy bag. By the time it reached us the GPO had reduced it to a mere collection of shards. More fool you for attempting a false economy.

I don't know who John Lewis is but he's definitely wrong about using Double Density (DD) CF2s. The only difference between them and Single Density (SD) discs is that they are quality checked twice at the factory. In fact (if you can afford it) it's always better to use DD CF2 discs than SD ones.

Hardcat? Why don't you ask yourself why anyone who would want to see what's on their discs would prefer to squint at a printed disc catalogue (that's about 80 mm by 100 mm) viewed through a scratched disc case, rather than looking at a clear page of A4?

I'm very sorry Mr Morely but unless your letters are in future:-

- a) slightly less repetitive.
- b) slightly less boring.
- c) slightly less moaning.
- d) slightly less begging.
- e) slightly more contributive.
- f) sent in on disc (so I don't have to waste time re-typing the rubbish.)

...then I'll have to give them the big elbow. Sorry about that but my time is precious as well as the pages devoted to Fair Comment -Joolz.>>

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#### SURVEY COMMENTS

<<The following letters are snippets that WACCI members have scribbled on the back of their 1989 GRAND WACCI SURVEY forms. Many thanks must go to dear old Richard Burton for photocopying them and posting them on to us here at WACCI HQ (he doesn't get paid a penny for doing it you know.)

Unfortunately some of the names were left off the copies I received, so where this is appropriate, I have made them up -Joolz.>>

#### SURVEY COMMENTS 1

WACCI is great! If it didn't exist we would have to invent it (isn't that what Napoleon said about God?)

Peter Ceresole  
London

<<'Twas Voltaire (1694-1778) who said that actually Peter but the rumour is that he pinched it from John Tillotson (1630-1694.) Napoleon came out with some classics like "an army marches on its stomach", "from the sublime to the ridiculous is but a step" and "all was not lost until the moment when all had succeeded." I think Old Nappy and Phil Morely must be related -Joolz.>>

#### SURVEY COMMENTS 2

I've just received my sample copy of WACCI, haven't had time to digest it all yet but I like the way it's put together compared with the rather bland ACU. Keep up the good work.

Sarchur Niceman

<<ACU bland? You must be reading the April 89 issue -Joolz.>>

#### SURVEY COMMENTS 3

I enjoy WACCI. As a whole magazine it is well presented with a good range of interesting items.

I would like some more detailed items on the uses of Public Domain software such as Cobol, Epro, etc. with example programs. It is difficult to learn new languages with a good book as a guide and without programs written by others as an example.

I understand the need for simple programming for those who are just starting programming. However, can I suggest that rather than include these on a monthly basis they are supplied on a separate disc.

May I offer my thanks to Richard Burton for volunteering to collect, collate and summarise the results of this 1989 WACCI survey.

Clive Bell  
Long Eaton

<<It comes back to the same old problem of finding someone who is prepared to write these wondrous articles Clive.

I don't understand the logic behind the idea of supplying an elementary programming series on disc? The mag's the place for it, why alienate a large section of the readership by excluding them? I'm sure there would be loud howls of protest if we confined Alastair Scott's "Bank Manager" series or AJ's sections about JRT Pascal to disc only. Why pick on the new CPC owners. If we took all the specialist bits out of WACCI there wouldn't be anything left.

We've seen Richard's graphs of the preliminary results but he is still patiently waiting for more. So please send yours, if you haven't done so already. I'll give you five Brownie points if you do -Joolz>>

#### SURVEY COMMENTS 4

My doctor says:- "strong drives in males make you bald and gives you acne."

We need a section, in WACCI, where members with other "standard" programs eg Tasword, MasterFile III, Art Studio, Print Master etc. publish their unusual uses of them and any queries with them (like Wordwork in Amstrad Action.)

A Pratt  
Birmingham

<<Is this a wierdo or what? What we don't need to do is start copying other rags half-baked ideas like AA's Wordwork, especially when Mr Pat McDonald is giving out advice about

printer ribbons that is not only incorrect but can also seriously damage your printer (look it up on page 26 of their March 89 issue if you don't believe me.) Fair Comment is the place to do this sort of stuff, WACCI doesn't need to pad out its pages like the big rags do -Joolz.>>

#### SURVEY COMMENTS 5

Sorry about the late return of this survey form. Humour in isolation can only mean the "Glenn at Large" column and, nothing personal Glenn, it's a waste of space. Humour integrated into an already worthwhile article is fine. Don't get me wrong, I find the humour in columns like *Auntie John's Diary*, *Woli* and *Thanx and Stuff* et. al. is wonderful.

R Slikka  
Preston

<<Is he right readers? I'm looking forward to reading your replies next month -Joolz.>>

#### HELP?

I'm not grovelling but this is a quick note about my letter published in WACCI recently concerning the second drive. I'm also a member of the UAUG to whom I sent the same letter. Despite enclosing a stamped addressed envelope with it I received no reply whatsoever. I know which club is the more useful of the two. Thank heavens for WACCI.

Peter Race  
Stockport

<<Once again WACCI reaches the parts that other clubs cannot. UAUG? It seems that their service is about inspired as their name -Joolz.>>

#### HELP?

I called Stewart Peppiatt on the WACCI helpline with my problem about trapping the "Disc Missing" error message and he is sending what looks like a solution. What a man, what a club. I mean, *SuperStu*.

Trivia time: Browsing through the

code in CP/M Protext, as one tends to do in the wee small hours, I found the message "Many thanks to David Foster for all his help." The next bytes say "Protext Fatal Error." In the same place in the Aped editor, that comes with Maxam II, it has "Don't forget to try Arnor BCPL." Do these messages appear after you have written your way into the Mother Ship?

Finally, all this living in the country. Yes I've heard about "grass" too and, I think "sparrows" but be very careful about trees. I'm told they charge when they're wounded.

Peter Ceresole  
London

<<Yes, I've heard that they charge but I've been told it's only a minimal 2p per K copying charge -Joolz.>>

**FAIR COMMENT**  
9 SOUTH CLOSE, TWICKENHAM  
MIDDLESEX TW2 5JE

#### DISC MISSING ERROR

Thanks for the back issues I ordered. Unfortunately the free disc on the cover of the October "birthday" issue was missing. I am sure this is a minor oversight on your part.

Jeff Simmonds  
Birmingham

<<Still the saga rolls on. I wonder if we will ever hear the end of Grumpy's gag? -Joolz.>>

#### WHAT A SETUP

Here is how to make the cursor keys and escape key respond correctly when running VDE under CP/M 2.2. This means you won't have to remember to use [Ctrl] and [ instead of escape. I'm using an upgraded 464 but I can't see why this shouldn't work for 6128 users as well.

1) Transfer VDE.COM, VINST23.COM and SETUP.COM onto a CP/M system formatted disc. The reason for doing this is that if you don't get it spot on first time you can redo it all without having to take the disc out.

2) At the A> prompt type:-

VINST23 VDE [Enter]

At the main menu select T to install your terminal and enter the following responses at the prompts:-

Terminal ID :CPC  
Viewable Columns :50  
Viewable lines -1 :17  
Horizontal Scroll delay :80  
DElete key :7F  
Arrows up,down,right,left :FFFFFFF  
Clear to end of line [06] :(01)12  
Terminal init [07] :(02)180C \*  
Terminal uninit [07] :(02)180C \*  
Alternate video on :(01)18  
Alternate video off :(01)18  
Alt video uses hi bit :N  
Output filter limit :7F  
Cursor column precedes row :Y  
Position cursor to (0,0) :001F0101  
Scroll up one line :00  
Scroll down one line :00

\* These two can be changed to the following to give white screen black letters by putting:-

(01)03

(01)02

After that press ESC (remembering that ESC is still ^[ at this stage) and save it. The rest of the information you'll need is in the VDE documentation file.

3) Type SETUP at the A> prompt and give the following replies at these prompts followed by Enter.

Initial command buffer empty : Y  
Sign on string : N  
Now type in:-  
^@vw^a@^]vwWACCI is great^J^M  
followed by [Enter] then Y  
Printer power up string empty : Y  
Keyboard translations : N

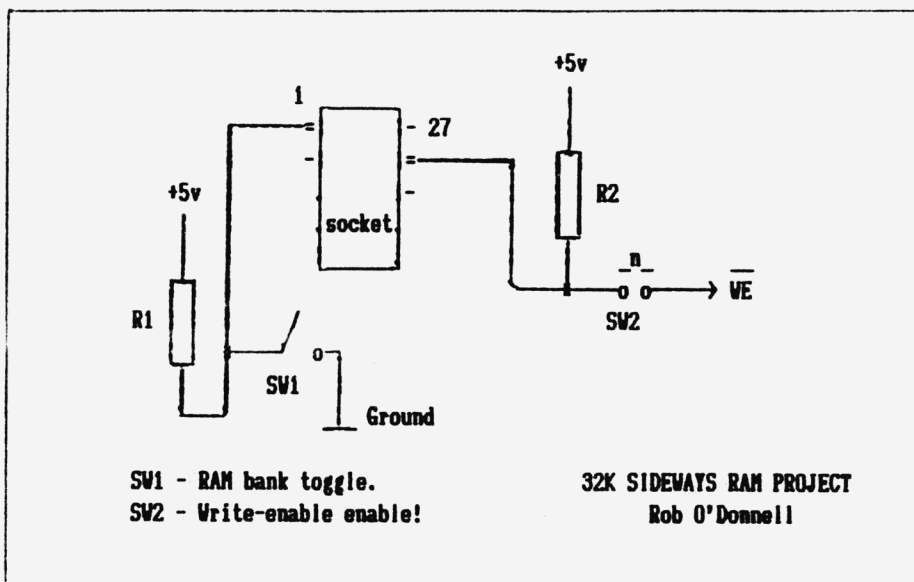
Now type in:

A,66,27,27,27 [Enter]  
A,0,5,5,5 [Enter]  
A,2,24,24,24 [Enter]  
A,1,4,4,4 [Enter]  
A,8,19,19,19 [Enter]  
A,16,7,7,7 [Enter]  
F [Enter]  
Y [Enter]

From now on you press Y for the rest of the questions. The program will save the new configuration and reboot CP/M to show you the new sign on screen. From now on when you boot up VDE the cursor keys will behave themselves properly. I hope this is of use to someone as the VDE is quite good for a WP as it does most of its work in memory.

Frank Frost  
Ryde

<<Thanks Frank, that is the most comprehensive guide to setting up the keys that we've seen. Even OMG managed to get it to work, so it must be pretty easy to follow -Joolz.>>



**DEAR JOOLZ & STEVE**

Just been reading Auntie John's bit about a 16K sideways RAM. Very nice, thought I, and also very familiar.

Those of you who know me (very few I'd guess) will know I'm more of a Beeb person than an Amstrad one. Anyway, this sort of circuit for sideways RAM has been about for the Beeb for ages.

What is the point of me bringing this up, you ask? <<I have a feeling you're going to tell us -Joolz>> It's simply that I can go one better. Here's a 32K sideways RAM project, (two 16K sideways RAMs) using only one chip, two resistors, and two switches.

**PARTS LIST:-**

- 62256 RAM chip. (Try Maplin for a pricy, if reliable, source.)
- 2K2 resistor (2 off)
- SPST switch
- SPST push-to-make, non locking switch.
- 28 pin IC socket (recommended - better to bugger a socket than the chip)
- Some bits of wire.

**STAGE ONE.**

Put the RAM chip aside. You don't want this until very last thing.

**STAGE TWO.**

Cut two four inch bits of wire. Strip and tin about 2 mm at each end of these. Bend back pins 1 and 27 of the IC socket, and solder one end of each wire to these pins. Now cover them with insulating tape (or sellotape, if you are really desperate) so that they won't touch the Rom board socket.

**STAGE THREE.**

Switch the computer off, plug your modified IC socket into the next available slot in your ROM board, hold the free ends of the two wires away from everything, and switch on again. If the computer doesn't fire up as normal, switch off immediately and check all your connections.

**STAGE FOUR.**

Connect one side of a resistor to 5v, and the other side to the push-button switch. Connect the wire from pin 27 on the IC socket to here too. Connect the other side of the switch to the Write-Enable line (see below.)

Connect one side of the other resistor to 5v, also, and take this to the toggle switch. Connect the other wire to this connection, but take the other side of the switch to ground.

**STAGE FIVE.**

As stage three.

**STAGE SIX.**

Plug in the 62256 into your IC socket.

**STAGE SEVEN.**

Switch on. Test the RAM with AJ's program. Now flick the toggle switch, and repeat it.

You now have two sideways RAM banks selectable by a toggle switch. If you're really clever, you can find a way to switch the RAM banks via software.

Re: Write Enable. I found this on the Rombo by looking at the sideways RAM connector on the side and thinking about where I would put it (pin 27, as it turned out.) If you look under Rom slot one, you will see two holes next to each other, near pin 28. It's the hole nearest pin 28, which has a track to the edge connector, that you can use for WE. Happy soldering.

Robert (TMS) O'Donnell  
South London

<<Thanks for the info Rob. The only drawback I think I can see is the price of the 62256 RAM chip but it's certainly a more elegant solution than having to piggy-back chips - Joolz.>>

**IT GROWS ON TREES**

I enjoyed the article about printing signatures using Protext in Peter Ceresole's Playing with Protext. Can you persuade him to write one that tells me how to print £5 notes.

Alan Tilling  
Cheshire

<<If he ever does write that article the WACCI readers will be the last ones to see it. I am long overdue a nice holiday in the Azores -Joolz.>>

# PRINTER RIBBONS

## for 35p??

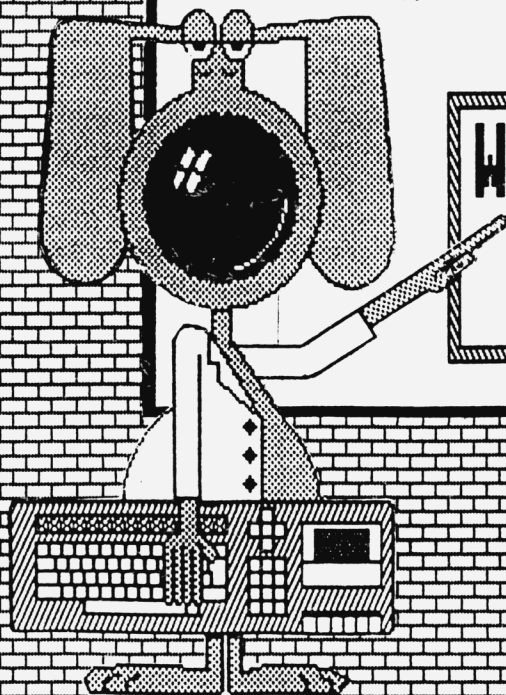
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# A Passing Thought

---

LEARNING KIDS WHAT CAN'T DO SUMS OR WRITE ENGLISH PROPER WIV JOHN RIDGE

---

I don't think there is any such thing as educational software. It is risky to lean too heavily on etymology but the word "educate" is derived from Latin and strictly speaking means to bring up. On the other hand the word "teach" is pure Anglo-Saxon and means to impart knowledge or skills. Oddly enough it is cognate with the word "token", although that is a matter I won't discuss here.

-?-?-?-?-

Clearly, there must be some overlap but more than anything else the difference lies in attitude of mind. In my opinion there are far too many educators in the schools these days, all busily usurping the right of parents to bring up their own children in their own way or, what is even worse, engaging in the damnable practice of using other people's children for experiments in social engineering. At the same time there is a dire shortage of what I would call genuine teachers. My purpose here is not to stir up that particular hornet's nest of controversy, though, so let us hastily pass on.

-?-?-?-?-

The notion of a computer bringing up children is so ridiculous that I find the description "educational software" somewhat fanciful and much prefer to think of programs being designed to teach or to serve as teaching aids. They need not necessarily be written for children, although I imagine that most will be.

At the last count, I had nine grandchildren, of whom six have possible access to a CPC computer at home. Two others have access to an IBM clone and one has her own Plus-4 machine, about which I know little. Not unnaturally, my thoughts have turned to the possibility of trying my hand at writing a teaching program or



two, at least for those with access to an Amstrad CPC. What I would like to do here is to offer a few of my own ideas for your consideration in the hope that they will inspire some discussion and perhaps even lead to one or two teaching programs being written.

-?-?-?-?-

It would not serve our purpose to get bogged down in the veritable quagmire of technical jargon which invariably accompanies any discussion of learning-theory, so my approach will be purely pragmatic. Think of me as a

bearded grandfather who, although cuddly and loveable, is extremely wise, sensible and down-to-earth. That description, now I come to think about it, fits me perfectly.

-?-?-?-?-

I think perhaps the most important consideration, especially if a teaching program is intended for small children, is that of reward. It has to do with what is often called positive reinforcement. For adults and older children, a sense of achievement or the realisation that a step has been made towards some distant goal is reward enough but small children require the encouragement of something much more concrete and immediate. If an adult is present to heap praise on the child, well and good but if the child has only the computer, then that must provide the reward.

-?-?-?-?-

I once wrote a version of Hangman in which the reward was an additional point to add to the score and the penalty was a little man falling into a tank of water with a splash. I imagined a child would want to prevent the little man from suffering such a sad fate. I underestimated children's innate sadistic tendencies. The trouble turned out to be that it was a far more rewarding experience to see the man falling from a great height than it was to see the score increase by one. It paid them, therefore, to guess that a word should be spelt bmbkjc. That was not my intention.

Whatever others may tell you, do not write programs for very small children which require reasoning. Small children love rigmarole of any sort, whether it be a long list of animals chasing the old woman chasing the pancake, or their three-times table. What parent has not been driven almost to distraction by having to read the same story-book dozens of times in succession? But God help the parent who gets a single syllable wrong on the 59th reading. Small children learn by rote and they learn well.

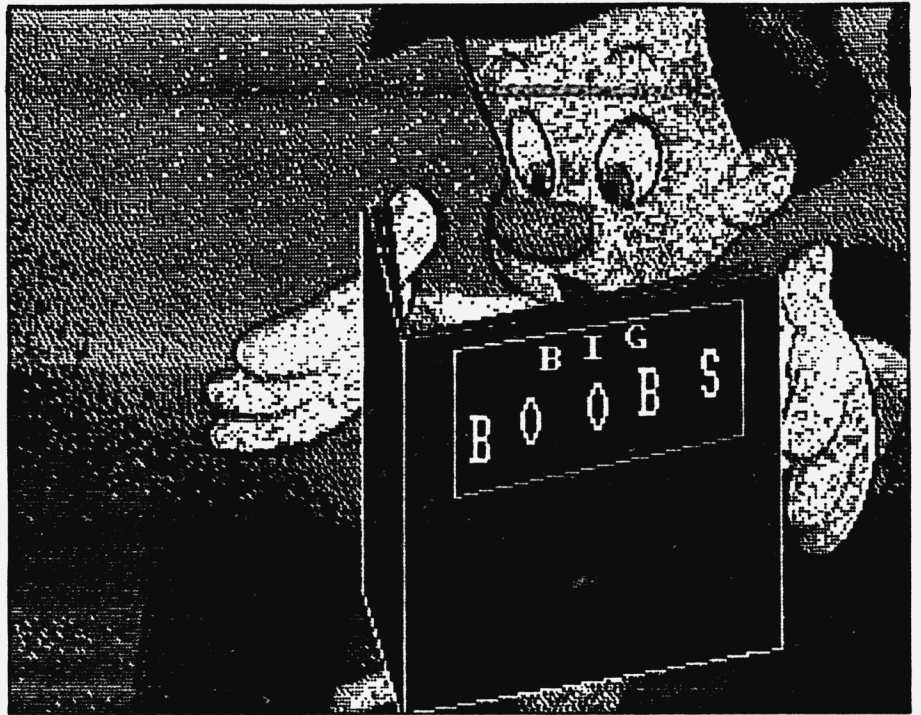
-?-?-?-?-

One final point regarding programs for small children is that any temptation to be "twee" should be resisted. Children obligingly humour adults who appear to favour little furry bunny rabbits but they don't go a bundle on them themselves. A furry stuffed toy is tactually pleasant and warm. A two-dimensional representation is neither except by association in the adult mind.

Asking the child to type its own name at the start of a program is a good idea and possibly its age, as children are keen to advertise how "big" they are. If the child is beginning to be functionally literate, then personalised messages may help considerably. Negative reinforcement by the use of messages reading, "Angela, my sweet, you are a 9 year old cretin" and the like should be avoided I feel. The complications of using the SHIFT key to input the upper case letter at the start of a name can be bypassed by a few lines of programming. The correct use of "capital" and "small" letters should always be encouraged by example.

-?-?-?-?-

When my own children were small, I found that if I put on an act of bewilderment and confusion, they were eager to rush to my aid. I might sit scribbling figures on a piece of paper, muttering to myself. Sooner or later someone would come to my rescue, explaining how easy it was and



demonstrating the method of calculation. We would eventually find ourselves coping with problems that had yet to be touched upon at school. Instead of being hopeless at arithmetic, we discovered that we were really quite good at it.

In a similar way, it might be useful to make the computer appear capable of errors which a child could gleefully pounce on and correct. The simplest way would be to get the child to say whether something was correct or not, perhaps with randomly generated errors which presented expressions such as  $6 \times 12 = 72$ ,  $7 \times 8 = 54$  and so on. But I am sure the machine could be made to appear subject to human fallibility in a much more subtle way than that and to arouse a child to a state of excitement trying to catch it out making mistakes. The quickest way of learning to play the piano is to start giving piano lessons, so perhaps the same principle holds when one starts to "teach" a computer something.

As soon as one begins to contemplate the possibility of writing teaching programs, all manner of ideas present themselves but it should not be forgotten that the aim is to teach, not just amuse. I said that we would not go into any theoretical aspects and neither shall we but the ground rules were all thoroughly explored

long before the advent of home-computers. It would be as well to visit a library and examine the literature on the subject of programmed learning, written when teaching-machines were in vogue. There is more to it than meets the eye.

Consider the question of whether minimal-step linear programs ought not to have parallel sequences with different step-sizes commensurate with the degree of understanding as measured by the percentage of correct responses. Is it practical to introduce such sequences in branching programs with multiple choice questions? If the inability to deal correctly with questions indicates the need to cover some previous ground again, how is one to loop back without causing discouragement by boring repetition?

As for the use of a computer as a teaching aid, well, not being a teacher myself I have no idea what aids they require other than a black-board and chalk, a crib hidden up one sleeve when dealing with Latin conjugations and a good stout cane with a sting sharper than a woman's tongue. Those pedagogues under whose regime I spent my formative years needed little more but that was some years ago. *Tempora mutantur, nos et mutamur in illis*, I suppose.

# VERY BASIC

BY  
ALAN TILLING

Letters to:-  
Very basic Basic  
65 Lawrence Road,  
Altrincham,  
Cheshire.  
WA14 4EL.

## THE PROGRAMMING SERIES FOR NEW USERS

Hello everyone, 'tis I. One of the problems I find, writing a column of this sort, is making up example programs that illustrate a point but are not puerile.

-(VbbVbb)-

One solution to this would be if every reader wanting to work through the examples in this series each had a copy of the same reference program with which to play around with and pull to pieces. Not only would we be able to look at the different routines used but afterwards you would also have a useful program to play with.

Which program would be the best one to use though? Let me think, aha! It just so happens that there is an excellent little program in The WACCI FSW Library which would suit our purposes down to the ground.

-(VbbVbb)-

TYPING TUTOR (AMS-171) was written by someone called Alan Tilling (sounds a familiar name that? Oh yes, it's me) TT is a program I wrote a while back.

If you send loadsamoney (well 18p anyway) to WACCI HQ you can get a copy of it. This will enable me to make reference to it and so save us all having to read long listings, in order to get my point across.

For this month we'll avoid reference

to the program so that you have a chance to get hold of a copy of the program before the May issue arrives. Be warned that from that issue onwards you will need the program if you want to stand any chance of understanding the worked examples.

-(VbbVbb)-

To help any beginners, if you send me a large self addressed envelope and an extra second class stamp (to cover the cost of materials) I'll send you a detailed line by line explanation of the program, with a flow chart and the listing.

Please don't ask WACCI HQ for the explanation because they haven't enough time to print out listings etc. (Now the pubs are open all day, they have even less time).

-(VbbVbb)-

### THE LETTERS BIT

Paul Dwerryhouse, of Deeside, has written, not with a query but with a "hints sheet" which I heartily endorse. Paul's letter is:-

I hope the following will be some use to you It is my method for writing programs and has proved very successful for me. I have used it on programmes large and small and it produces well structured code, as well as being a lot faster than trying to

type it straight in out of your head.

- 1) Use pen and paper (the real things not the keywords) to write programs.
- 2) Having identified the need for the program, set out exactly what it will do, the features it will have and the method of user input.
- 3) Set out the main variable names.
- 4) Write the initialising routine.
- 5) Write the main loop.
- 6) Write all the sub-routines starting at 1000, 2000, 3000 etc.
- 7) I spend about one hour per night typing in these routines and then test as far as possible. One hour is enough grinding away for me.
- 8) Keep notes of all sections with any additional variable names or minor alterations.
- 9) Do not RENUMBER until completely finished as your program notes will act as a printer listing and help you find any bugs.

Using this method, most of what I type works first time and with difficult sections of code. I find I can think it out better on paper than in my head. It took me about six months of having a CPC to arrive at it and I have not looked back since.

-(VbbVbb)-

In WACCI No.29 (Feb 89) Mr S Bradford asked how to save the contents of his second drive to tape. Sorry I didn't

answer your letter last month but I sent off my submission to WACCI HQ the morning before I received Feb's copy.

Mr Bradford, since you want to transfer disc programs to tape, I can only assume you have a penchant for watching paint dry. Still, if 3" discs get scarce, we all might be tempted to exercise much patience and dump as much as possible to tape.

-(VbbVbb)-

First of all you asked if there was a utility to do it. *Camel Micros*, who advertise in WACCI, sell *WOPS* disc manager and copier. You can find their advert in most WACCI's. I have not got *WOPS* myself so I can't say whether it's good, bad or indifferent but the

advert does say that it will "ARCHIVE to tape." If you do buy it, please mention WACCI.

-(VbbVbb)-

To transfer progs to tape manually, all you need do is to type `:B [RETURN]`. This will select drive B (anyone who is using only one drive, omit this stage). Then `!tape.out [RETURN]`. This will cause all the output to go to the cassette port rather than the disc drive. However, the disc drive (in this case drive B) will still be used for inputting.

All you need do now is to type `load"filename [RETURN]`, `save"filename` and the file will slowly, oh so slowly, be deposited on to tape.

You can also do it from C/PM 2.2 (yawn) using `CLOAD` and `CSAVE` commands but I'm not a CP/M (yawn) buff so I'm afraid you will have to experiment with that option. Now that I've said that, I dearsay next month's Fair Comment will now be filled by CP/M freaks telling us how it is done.

-(VbbVbb)-

That's all for this month folks. Don't forget to order your copy of my *TYPING TUTOR* (AMS-171) from WACCI HQ at 9 South Close, Twickenham, Middlesex, TW2 5TU, before next month's issue. Otherwise you'll find trying to follow this *Very Basic Basic* series as difficult as finding out where Squinty has gone. *Bye for now, Alan.*

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# Minding the Stock

STOCK, ACHING AND WATERMAN ALIAS STEVE WILLIAMS AND A REVIEW

*Do me a favour Terry. I mean, strike a light, what would I want with a stock control program that runs on a computer? Blimey, I can run my little lock-up without the need to lean on one of them sloppy discs things.*

program is pretty straight forward and takes care of all the difficult bits.

#### USING THE PACKAGE

First off you have to make a backup copy of the supplied program disc and

1.) The options that this menu leads off to are fairly self explanatory.

#### GETTING STARTED

To begin the initial session you have to set up your opening balance. Once

#### GET ON WITH IT

OK, so I'm not Arthur Daley, I'm not a Cockney and I am not under five foot tall but I do belong to that small group of people collectively known as 'The small businessmen.'

We wheeler dealers have always had a bit of a problem when it comes to keeping track of the amount of stock we have 'out the back.' Fortunately, for us, those clever little people at THOMPSON COMPUTERS have now leapt to our aid.

#### STOCK CONTROL

This package works under CP/M+. It requires the full CP/M+ version of Protext. The program is menu driven and uses the Promerge mail merge commands and the Exec file and macro facilities in a similar manner to Protext Filer and Protext Office.

#### DOCUMENTATION

Stock Control's manual is eleven A4 pages and bound in a sturdy plastic folder containing about 1400 words of text. It's well written and easy to understand. In actual fact, once I got past the initial setting up phase, I found that I didn't need it. The



use it as your working disc. Once you have done this you can begin.

Boot up CP/M+ and load in CP/M+ Protext. At the A> prompt from the command mode you must, type "x thomp" followed by the RETURN key. You will then be asked to enter the date. When all of this has been safely accomplished you enter the routine by typing "x sm" from the Protext command mode. When the dust eventually settles you are greeted by the main menu (Fig

this is done this you then proceed to enter details into the application. These can be transaction credits/debits or information about standing orders. The latter are particularly well catered for as the user is given the option to enter, amend or even merge the information.

#### ENTERING DATA

You are prompted for a description (maximum of 25 characters including

# the WACCI FSW Library

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LIBRARY  
IN THE  
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## LOOSE PUBLIC DOMAIN SOFTWARE - Copying charge = 2p per K

To obtain loose PD software, fill in the FSW Library order form and send it with a CF2 disc or discs (330K maximum per disc) in a Jiffy bag, plus the correct charge (min £1), to WACCI HQ. The copying charge is 2p per K. (two pence per

Kilobyte). The CPM programs have been tested by WACCI on an Amstrad CPC6128 computer. Although the programs have been tested, they are supplied on an as-is basis. WACCI accepts no liability for faults or non-operation.

- CPM-001: BINCALC ..... 10K - On-screen calculator.  
CPM-002: COMPARE ..... 10K - Compares two files for differences.  
CPM-003: LOOK ..... 12K - Views and Edits ascii and binary files.  
CPM-004: NDDT ..... 11K - Improved version of DDT.  
CPM-005: NSWP ..... 37K - Disc and file management utility.  
CPM-006: QK20 ..... 10K - Assigns character strings to keys.  
CPM-007: RASMB ..... 17K - Z80 reverse assembler.  
CPM-008: UNERA ..... 2K - Unerases erased files.  
CPM-009: XIZI ..... 22K - 8080 to Z80 to 8080 code translator.  
CPM-010: ZMAC+ZLINK ... 40K - Z80 assembler and linker.  
CPM-011: CONV2 ..... 3K - Converts CP/M 2.2 files to CP/M Plus.  
CPM-012: LASM ..... 10K - Improved version of ASM.  
CPM-013: LOHD ..... 2K - Improved version of LOAD.  
CPM-014: Z8OASM ..... 15K - Z80 assembler.  
CPM-015: Z8E ..... 190K - Z80 debugging monitor and assembler.  
CPM-016: ZDEBUG ..... 31K - Non-symbolic Z80 debugging tool.  
CPM-017: SMALL-C ..... 157K - Floating-point version of the language.  
CPM-018: SCI ..... 59K - Small-C-Interpreter.  
CPM-019: EBASIC ..... 84K - Compiles a subset of Basic to machine code.  
CPM-020: LISP ..... 81K - The essence of a Lisp interpreter.  
CPM-021: EPRO ..... 37K - A version of the Prolog language.  
CPM-022: CHEK ..... 5K - Checks disc quality.  
CPM-023: D ..... 4K - Directory utility.  
CPM-024: DISKDOC ..... 11K - Disc doctor (not sure how it works).  
CPM-025: DISPLAY ..... 5K - Displays text files f/wards or b/wards.  
CPM-026: ED.DOC ..... 22K - Instruction file for ED.COM  
CPM-027: FORM3 ..... 3K - Allows CP/M+ owners to read PCW discs.  
CPM-028: GREP ..... 13K - Emulates the UNIX grep command.  
CPM-029: LOOKAT ..... 3K - Dumps files in ascii format.  
CPM-030: RPIP ..... 8K - Improved version of PIP.  
CPM-031: SD ..... 4K - Directory utility.  
CPM-032: SETCOLOUR .... 12K - CP/M 2.2 easy colour-change command.  
CPM-033: SORT ..... 4K - Sorts the contents of text files.  
CPM-034: VLIST ..... 2K - Controls text file scrolling speed.  
CPM-035: WCOUNT ..... 7K - Counts the words in text files.  
CPM-036: LBRDISK ..... 16K - A library utility.  
CPM-037: DU ..... 44K - Powerful disc sector editor.  
CPM-038: NULU15 ..... 82K - Improved version of Library Utility (LU).  
CPM-039: WRDCOUNT ..... 26K - Another word-counter.  
CPM-040: ADVENT ..... 101K - Big text-only adventure.  
CPM-041: TEAM-GEN ..... 22K - Scoresheet generator.  
CPM-042: USERFUNC ..... 12K - A small library of Basic DEF FNs.  
CPM-043: BIO ..... 14K - Biorhythm chart generator.  
CPM-044: CAL ..... 6K - Calendar generator.  
CPM-045: CHESS ..... 26K - CP/M 2.2 version of the board game.  
CPM-046: GOLF ..... 26K - A text-only swipe round the golf course.  
CPM-047: MAZE ..... 3K - Maze generator.  
CPM-048: NEWPUZ ..... 25K - Wordsearch generator.  
CPM-049: OTHELLO ..... 22K - Version of the board game.  
CPM-050: UKM7 ..... 26K - Comms utility adapted from MODEM7.  
CPM-051: INVENT ..... 35K - Inventory database.  
CPM-052: VDE ..... 76K - Fast, powerful word processor.  
CPM-053: SPELL ..... 33K - Spelling checker with dictionary.  
CPM-054: SCRIVENER ... 194K - Spreadsheet cum database cum invoicer...  
CPM-055: JRT PASCAL .. 208K - Floating-point, standard version.  
CPM-056: JRT MANUAL .. 200K - Manual on disc for the above language.  
CPM-057: COBOL ..... 97K - NPS Micro-Cobol v2.1.  
CPM-058: FORTH ..... 54K - 16K version, can be enlarged easily.  
CPM-059: STOIC ..... 62K - A version of the language.  
CPM-060: EXPERT86 ..... 52K - A very good expert system.  
CPM-061: HEX ..... 141K - Modem EXECutive comms utility.  
CPM-062: KERMIT ..... 28K - Comms utility for little green frogs  
CPM-063: LUCKY13 ..... 11K - Lottery number generator and checker  
CPM-064: LOGAN ..... 15K - LOGic ANalyser and frequency counter  
CPM-065: WSCLEAN ..... 4K - Clears the high bits from text files  
CPM-066: OPT ..... 21K - A Three Pass Optimiser for Small C  
CPM-067: STARTREK ..... 11K - Scotty's in there again.  
CPM-068: HEXTO .. ..... 17K - Make DATA loaders from HEX files  
CPM-069: MAXELCAT ..... 57K - Print out a catalogue of all your files  
CPM-070: MAKEASM ..... 17K - Converts ZMAC files to source for JRTASM  
CPM-071: 80TRK ..... 59K - Stick a 5.25" drive on your CPC  
CPM-072: ZSM ..... 24K - PD assembler  
CPM-073: DISZ80 ..... 22K - Z80 op-codes into Zylog, 696 mnemonics  
CPM-074: CPM2T03 ..... 7K - Run 2.2 programs under CP/M Plus

CPM-075: XRAS..... 160K - Scrolling bulletin board host program  
 CPM-076: MFT ..... 3K - Easy one-drive Multi File Transfer.  
 CPM-077: CRUNCH/UNCR .. 17K - User-friendly file squeezer.  
 CPM-078: SIDEWAYS ..... 34K - Prints spreadsheets sideways.  
 CPM-079: DISCKITA ..... 31K - General purpose disk formatter +  
 CPM-080: CLEANUP ..... 3K - Slicker file erasing and typing.  
 CPM-081: SUPERZAP ..... 27K - A full screen interactive disc utility  
 CPM-082: PASSWORD ..... 3K - Protect your programs from prying eyes  
 CPM-083: SCRAMBLE ..... 2K - Similar to PASSWORD but trickier.  
 CPM-084: DISPLAY ..... 5K - A smart text reader.  
 CPM-085: FILECHOP ..... 6K - Breaks down ANY program.  
 CPM-086: LIST ..... 3K - Improve the appearance of listings.

CPM-087: MAKE ..... 3K - Simplifies area user changes.  
 CPM-088: NEWCCP ..... 9K - Adds extra commands to CP/M.  
 CPM-089: PCW ..... 3K - Read AND write to PCW formatted discs.  
 CPM-090: EPSETUP ..... 11K - Configuration program for Epson printers  
 CPM-091: B29 ..... 47K - NSWP workalike, views COM files as well  
 CPM-092: MFT+ ..... 3K - Multi File Transfer with two drives.  
 CPM-093: PRINT ..... 7K - Text file printing aid.  
 CPM-094: RESCUE ..... 6K - rescues corrupted discs  
 CPM-095: CRCBUILD ..... 3K - Catalogue your discs. (CP/M 2.2)  
 CPM-096: MCAT ..... 23K - Catalogue your discs. (CP/M +)  
 CPM-097: EDIT ..... 16K - A text editor.

## LOOSE HOMEGROWN SOFTWARE - Copying charge = 2p per K

To obtain loose HG software, fill in the FSW Library order form and send it with a CF2 disc or discs (330K maximum per disc) in a Jiffy bag, plus the correct charge (min £1), to WACCI HQ. The copying charge is 2p per K. (two pence per

Kilobyte). The AMS programs have been tested by WACCI on an Amstrad CPC6128 computer. Although the programs have been tested, they are supplied on an as-is basis. WACCI accepts no liability for faults or non-operation.

AMS-001: MASTERS OF MIDWORLD . 29K - Graphical adventure.  
 AMS-002: MINIMON ..... 4K - Mini machine-code monitor.  
 AMS-003: CHARDES ..... 3K - Big-character designer.  
 AMS-004: HEADER READER ..... 2K - Colourful tape header reader.  
 AMS-005: FRUIT WORM ..... 4K - The old caterpillar/fly type game.  
 AMS-006: OHELLO ..... 6K - Reversi simulation.  
 AMS-007: FOUR IN A ROW ..... 6K - Version of Connect 4 board game.  
 AMS-008: THE WORLD ..... 26K - Graphics demo of Earth spinning.  
 AMS-009: CHAT ..... 5K - Based on the famous Eliza.  
 AMS-010: JIGSAW-1 ..... 34K - Educational jigsaw.  
 AMS-011: EDDY ..... 15K - Good text editor for all CPCs.  
 AMS-012: XOX ..... 3K - Two player noughts and crosses.  
 AMS-013: PONTOON ..... 37K - You against the computer.  
 AMS-014: PROGDOC ..... 33K - Programmer's utility.  
 AMS-015: HELPING HAND ..... 5K - Decision aid.  
 AMS-016: BOMBER ..... 4K - Bomb the town & land your plane.  
 AMS-017: LIFE ..... 4K - The Game of Life.  
 AMS-018: LOCK\*n\*KEY ..... 8K - Maze game.  
 AMS-019: TUNNEL DIVE ..... 4K - Frefall game.  
 AMS-020: HEAD ..... 3K - Tape or disc header reader RSX.  
 AMS-021: MEMDATA+ ..... 3K - M/code into data statements.  
 AMS-022: KEYDEF ..... 2K - Single keypress command typing.  
 AMS-023: CHAMPIONSHIP DARTS .. 12K - Bonk... Bonk... Bonk...  
 AMS-024: GRID WARRIOR ..... 4K - Another caterpillar/fly game.  
 AMS-025: JIGSAW-2 ..... 51K - Educational jigsaw.  
 AMS-026: STAR CHASE ..... 11K - Space shoot-em-up.  
 AMS-027: UFO ESCAPE ..... 18K - Maze game.  
 AMS-028: HEADLESS ..... 3K - Headerless file tape to disc.  
 AMS-029: BEETLEMANIA ..... 31K - Machine-code game.  
 AMS-030: DISC ..... 2K - Intelligent disc menu.  
 AMS-031: SDUMP ..... 10K - Five mode 1 & 2 screen dumps.  
 AMS-032: ENGLEBERT ..... 8K - Bert game.  
 AMS-033: GLOBE ..... 7K - view Earth from space.

AMS-034: MULTIPROG ..... 2K - Holds 4 Basic progs in a 2nd 64K.  
 AMS-035: PIXELPLOTTER ..... 5K - 6128 Etch-a-Sketch program.  
 AMS-036: STORY ..... 12K - Zany prog that invents stories.  
 AMS-037: FUNCTDR ..... 2K - Plots graphs of matha functions.  
 AMS-038: FUNCSOL ..... 2K - Solves quadratic equations.  
 AMS-039: FORMULAE ..... 3K - Mixes chemicals.  
 AMS-041: CGEN ..... 6K - Icon-driven character generator.  
 AMS-042: EXCAT ..... 5K - Extended cat to screen/printer.  
 AMS-043: EXPRINT ..... 5K - Prints ascii chars > 127.  
 AMS-044: PROFORMA ..... 2K - Cassette filing sheets to a DMP1.  
 AMS-045: NEATLIST ..... 4K - Emulates the BBC's LISTO command.  
 AMS-046: ROMREAD ..... 3K - Tells you about your rows.  
 AMS-047: SYMPHONY ..... 4K - Kalaedoscope pattern generator.  
 AMS-048: AMSIG ..... 173K - Mandelbrot Set Generator.  
 AMS-049: DRIPZONE ..... 53K - Addictive machine-code game.  
 AMS-050: DISPED ..... 5K - Disc sector editor RSX.  
 AMS-051: STARFIRE ..... 25K - Machine code zap-em-up game.  
 AMS-052: SCANNER ..... 2K - Scans lots of ascii files.  
 AMS-053: BOUNCER ..... 4K - A version of Breakout.  
 AMS-054: BASIC+ ..... 13K - 45 new commands to Basic.  
 AMS-055: LABEL PRINTER ..... 6K - Single address labels.  
 AMS-056: MISSILE ..... 6K - A version of Missile Command.  
 AMS-057: SKETCH & PROGRAM ..... 8K - Turns sketches into prog lines.  
 AMS-058: SYNTH ..... 3K - 3-channel keyboard sound.  
 AMS-059: HOTRODS ..... 6K - Race game.  
 AMS-060: BREAKOUT ..... 3K - Yawn.  
 AMS-061: DEPRO ..... 2K - Load and list protected Basic.  
 AMS-062: DIS ..... 5K - Good Z80 disassembler.  
 AMS-063: PAIRS ..... 4K - A version of Pelmanism.  
 AMS-064: XREF ..... 15K - A Basic cross-reference utility.  
 AMS-065: WACMON ..... 16K - Versatile machine-code monitor.  
 AMS-066: MUSIC COMPOSER ..... 14K - Compose one-channel melodies.  
 AMS-067: LOGOPOLIS ..... 15K - Version of Logo.

AMS-068: MATHS MAGIC ..... 11K - For numerical freaks.  
AMS-069: BREAKER ..... 3K - Dumps screens to disc.  
AMS-070: DISC MENAGERIE ..... 29K - Good disc utility.  
AMS-071: NOSEY ..... 4K - Edit memory and banks, view roms.  
AMS-072: SPRITES ..... 6K - Mode 0 sprite designer.  
AMS-073: SQUEEZER ..... 4K - Squeezes ascii files.  
AMS-074: CAVERNS OF SKELETOR 14K - Multi-coloured maze game.  
AMS-075: ZENER CARDS ..... 23K - ESP test.  
AMS-076: SUM-VADERS ..... 7K - Educational maths game.  
AMS-077: WILD ..... 15K - An educational wildlife quiz.  
AMS-078: TEXT & PROGRAM ..... 3K - Text screens into program lines.  
AMS-079: WORDY ..... 27K - Advanced text editor.  
AMS-080: TRIVIA QUIZ ..... 72K - 2 to 4 player quiz.  
AMS-081: PROTO ..... 16K - Good Z80 assembler.  
AMS-082: CHESS CLOCK ..... 10K - For chess freaks.  
AMS-083: DEFFONT ..... 14K - Excellent character generator.  
AMS-084: CALENDAR ..... 7K - Calendar generator.  
AMS-085: SNOOKER SCOREBOARD . 4K - For snooker freaks.  
AMS-086: PATIENCE ..... 9K - The soitaire card game.  
AMS-087: AUTOLINE ..... 3K - Intelligent graphics demo.  
AMS-089: CRUNCH ..... 8K - Educational Pacman.  
AMS-090: CALCULATOR ..... 21K - Scientific calculator.  
AMS-091: FONT ..... 8K - 40-column text in Mode 0.  
AMS-092: FIRMWARE EXPLORER ... 5K - Similar to Regiload.  
AMS-093: GOMOKU ..... 5K - Hybrid of Othello & Connect Four.  
AMS-094: MENU ..... 4K - intelligent disc menu.  
AMS-095: OTHELLO ..... 9K - Another version of Reversi.  
AMS-096: UDGRAB ..... 6K - Grab user-defined graphics.  
AMS-097: STYLE ..... 2K - Analyses documents.  
AMS-098: DISCMAP ..... 3K - Maps sectors on any format disc.  
AMS-099: TAPE RSXS ..... 2K - Quick save and load screens.  
AMS-100: VIEWFAX ..... 12K - A Teletext type system.  
AMS-101: GO ..... 15K - Ancient Chinese strategy game.  
AMS-102: DI-SYMM ..... 2K - A colourful pattern generator.  
AMS-103: AGE ..... 4K - GEM type windows generator.  
AMS-104: SNAKES ..... 5K - A game (I think).  
AMS-105: OZ ..... 4K - Addictive peg-and-holes game.  
AMS-106: FRACTAL ..... 11K - CPC conversion of Macfractal.  
AMS-107: TEE-OFF ..... 12K - Golf game.  
AMS-108: PRIMES ..... 2K - Calculates prime numbers.  
AMS-109: SOUNDFX ..... 2K - Explode, Ping, Bang, Zap RSXs.  
AMS-110: PHARAOH ..... 9K - Maze and beasties game.  
AMS-111: SHIFTY ..... 10K - Educational jigsaw type game.  
AMS-112: DIAMOND MINER ..... 8K - Underground hunt for jewels.  
AMS-113: CRAZY MAZE ..... 5K - Maze game.  
AMS-114: PATHFINDER ..... 8K - Confuzion type game.  
AMS-115: SPELLBOUND ..... 17K - Educational spelling tug-of-war.  
AMS-116: GRAPHIC MAGIC ..... 9K - Mode 0 screen designer.  
AMS-117: JIGSAW-3 ..... 92K - Jigsaw game (includes 5 jigsaws).  
AMS-118: WRITE IT RIGHT ..... 12K - Educational word game.  
AMS-119: SHEEPDOG ..... 5K - One man and his computerised dog.  
AMS-120: NOMOPOLY ..... 20K - Variant on the board game.  
AMS-121: BACKGAMMON ..... 40K - Plays a hard game, but addictive.  
AMS-122: DOMINOES ..... 30K - Fives and Threes.  
AMS-123: DYS-SYMMII ..... 5K - Colourful pattern generator  
AMS-124: PRINTER ..... 2K - Printer setup utility.  
AMS-125: SDM ..... 11K - O.S. for Bigscreen Programs.  
AMS-126: ORRERY ..... 9K - Watch the world go round the sun.  
AMS-127: MUSIC ..... 13K - Easy music creator.  
AMS-128: ENVELOPE ..... 8K - Fiddle with ENT and ENW commands.  
AMS-129: POSTER ..... 6K - For use with Siren's Print Master.  
AMS-130: CONTOURS ..... 9K - 16 colour mathematical contour map  
AMS-131: COMPLEX ..... 9K - Electrical engineers toolkit.  
AMS-132: DIABOLO ..... 35K - Multi format Solitaire game.  
AMS-133: ADAM ..... 6K - Prints out A.D.A.M. text files.  
AMS-134: BANNER ..... 4K - Print 10" high lettered banners.  
AMS-135: GLOBE II ..... 45K - Much enhanced of the original.  
AMS-136: SYNTH2 ..... 17K - Another Synthesiser program.  
AMS-137: QUIZ ..... 96K - Trivia quiz + speech.  
AMS-138: SDUMP V.3 ..... 7K - Sdump suite+ helpful front-end.  
AMS-139: STATS ..... 10K - Statistics program.  
AMS-140: COLPRINT ..... 1K - Prints out text in columns  
AMS-141: SPREAD ..... 45K - A spreadsheet program  
AMS-142: DISC MENAGERIE II ... 28K - Much enhanced version DM  
AMS-144: BIO ..... 5K - Hi-res Biorthym generator.  
AMS-145: NUMERO ..... 12K - The Cabbala made easy.  
AMS-146: 3D MAZE ..... 7K - Can you find the exit?  
AMS-147: PHI ..... 8K - Answers on a postcard please.  
AMS-148: S-LIGHT ..... 3K - Sound to light generator.  
AMS-149: DOMINOES II ..... 10K - The normal dominoes game.  
AMS-150: STRAIGHT ..... 8K - Generates straight line graphs.  
AMS-151: REGILOAD II ..... 13K - Regiload re-visited.  
AMS-152: HARDCAT ..... 2K - Printed disc catalogues. (6128)  
AMS-153: PACPLANT ..... 25K - Auntie John's version of Pacman.  
AMS-154: SDUMP V.4 ..... 29K - Now with added AGE enhancements.  
AMS-155: BIOMORPH ..... 9K - Tinker with genetics (6128).  
AMS-156: BANK+ ..... 5K - Manipulates banked memory (6128).  
AMS-157: DECOMP ..... 7K - Load compressed Art Studio files.  
AMS-158: EZMUSIC ..... 14K - Frequency tables become redundant.  
AMS-159: WACCIWORD v2.0..... 87K - WACCI's very own word processor.  
AMS-160: INVGEN ..... 17K - Send other people an invoice.  
AMS-161: KEYBOARD ..... 10K - A comprehensive sound generator.  
AMS-162: GRAFPLLOT ..... 4K - Plots graphs I think?  
AMS-163: DCHEAT ..... 1K - A cheat loader for DRIPZONE v3  
AMS-164: SPX ..... 20K - A Stock Market analyzer.  
AMS-165: 3DXOX ..... 7K - 3D noughts and crosses.  
AMS-166: LNA ..... 7K - A Logic Network Analyser from AJ.  
AMS-167: PDG ..... 3K - The Prisoner's Dilemma Game.  
AMS-168: AGE128 ..... 10K - GEM type windows generator (6128)  
AMS-169: STROBE ..... 16K - Flashy pattern generator.  
AMS-170: MAGIC SQUARES ..... 4K - A bit of a puzzle.  
AMS-171: TYPING TUTOR ..... 9K - Improov yur typing acccurarcy  
AMS-172: FOOTBALL ..... 60K - A pools predictor. (it's a goody)  
AMS-173: KIRK ..... 262K - A very comprhensive WP  
AMS-174: DWERRYBASE ..... 60K - Label printer with database  
AMS-175: DISPLAY ..... 139K - Magic Lantern Picture Show



spaces) of the group of goods you want to itemise. You can have a maximum of nine groups covering general descriptions of the goods you are itemising, each group can be subdivided to hold specific item titles. In my case I chose some general group titles such as software, hardware, back issues etc. Each group can then have individual descriptions defined eg under "Back Issues" I had each issue catalogued separately with the number remaining in stock.

The unit cost of each item is entered along with the expected re-order level. The total amount is then worked out and all the entries are displayed on the screen and you will be asked to confirm if the entries are correct. If you have made a mistake Stock Control scraps the entry and takes you back to the beginning of the section. The program allows you to edit and update each stock level

#### HERE WE GO

Once you have got this far you can now begin to appreciate the real power of Stock

Control. It allows you to print out or display re-order levels, stock that currently needs re-ordering, current stock levels, and present stock values. These can be displayed or printed either individually, by group or in total.

To the casual observer (or non 'small businessman') this may not appear to amount to a whole heap of beans but to someone who needs to keep track of a multitude of items and also run a business at the same time, this really is a godsend.

#### THE NIGGLES

In fairness these are only minor niggles and I do have only two of them. The first of which is that the documentation gives no clues about how to calculate 're-order' levels. It would be impossible to incorporate this into the manual since gargantuan



```

*****
* Thompson Computers Stock Control (v 1.00)
*
* MENU The Date is 01/04/89
*
* Enter Stock Details.....1
* Edit Stock Details.....2
* Print Stock Details.....3
* Update Stock Levels.....4
* Print Re-Order List.....5
* Enter/Edit Stock Group Names.....6
* Display Value of Stock.....7
*
* To End Program.....E
*
* Enter Choice 1-7 or (E)xit
*
*****

```

Fig 1. The Main Menu.

times have already been written about how to achieve this task, with varying degrees of success. What would have been nice would have been a few pointers included from THOMPSON COMPUTERS about where to find these books, even if it was only a note to say "look in your local library."

The second is that the routine is understandably slow. This is because it is running under the Promerge part of CP/M+ Protect. This means it has to read certain routines and files from the disc. This, of course, involves disc access time thus slowing the whole procedure considerably.

One way to get around this is to have a Ram/Dk'Tronicks' 256K Silicon Disc set up as drive C: (or B: for you cheapskates who haven't yet purchased a second drive) under CP/M+ giving 444K disc space. Load CP/M+ Protect AND Stock Control onto the same

S/Disc, run the application under Protect and it then hurtles along as fast as Edwina Curry at an Egg and Spoon race.

At the end of the day the lack of speed must be considered as an acceptable trade-off against the program's versatility.

#### FLEXIBILITY

The very fact that Stock Control is an application and runs under Promerge gives the user an opportunity to "tweak" the package to his or her own requirements.

#### FUNASTIC

One aspect of Stock Control is that it can be fun. Yup, having toyed around with SC for a while on my business stock my eyes strayed in the direction of the contents of 'her indoors' larder.

I started to pull out various boxes and tins of comestibles (purely as an academic exercise of course) and entered their values into the Stock Control program.

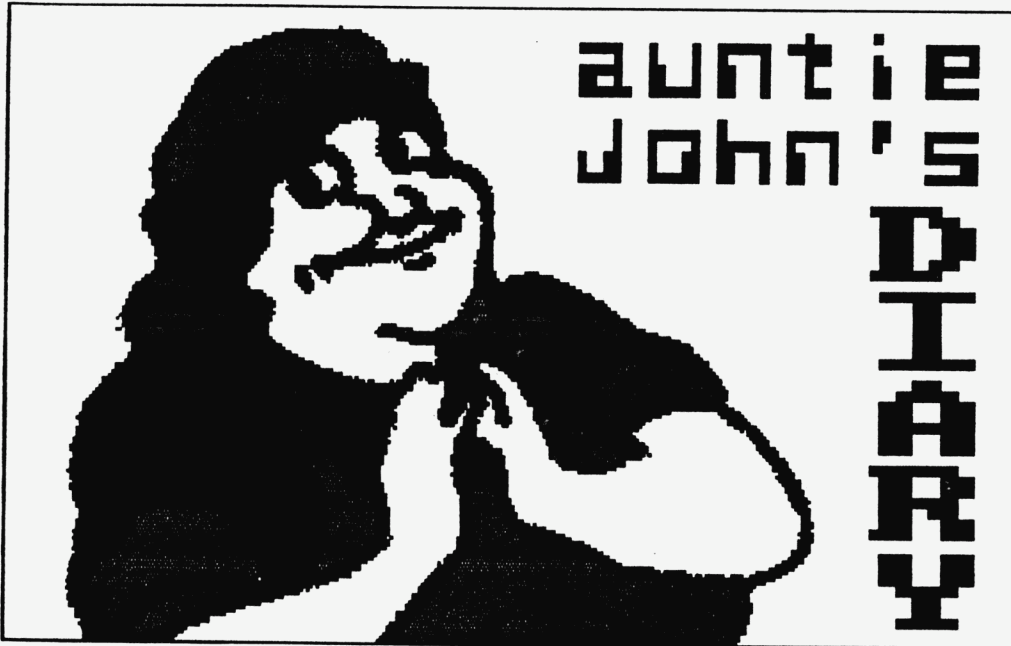
Less than one hour later I not only found we could afford to pay off the remainder of the mortgage if we auctioned the larder but also that mixing clotted cream, Rice Crispies and pickled onions is not a very satisfying culinary experience.

#### THE PRICE

As I have said before, £15 is a lot for the average CPC user to pay for a disc based game, but this isn't a game and it is not aimed at the average CPC user. Considering that it is designed for use by a small business, and also that it is tax-deductible, £15 is a more than reasonable price.

#### SUMMARY

The other small point in its favour is that it is the only stock control package currently available for the CPC. THOMPSON COMPUTERS have been very clever at spotting yet another niche in the CPC marketplace.



THE COLUMN SPONSORED BY THE NORTHERN IRISH TOURIST BOARD

Ahhh, it's that WACCI time of the month again. Is it really a month since I last booted-up Protext and got down to work? Is that The WACCI Editor shaking his head? <<Nope -Ed.>>

ooo00ooo

Before we get back to the intricacies of programming, I thought I would fill all you ignorant people in with the even more intricate political situation in Northern Ireland. People from Norn Iron love talking about Norn Iron. They also like watching the news because if Norn Iron isn't mentioned they can say "Hah, they don't care about us over here" and if they are mentioned they can say "Hah, they don't really know what is going on over here."

ooo00ooo

First the names. There are even more TLAs (Three Letter Abbreviations) in Norn Ireland than in computing jargon. These describe various organisations, some illegal (IRA), some legal (UDR) and some that no-one is sure of (RTE.)

Then the political groups. There are the Unionists (*who don't want a union*

with the republic) the Republicans (*who do*) the Nationalists (*who don't want to be part of the nation*) and the Loyalists (*who are loyal to summat-or-other.*) Political parties include the SDLP, the Popular Unionists, the Official Unionists and Democratic Unionists and the Irish one which when translated means 'False leg-bone'.

It is a little known fact that NI is the only part of the UK where you can't actually vote for the Government or opposition parties. Not bad for a 'democratic' country eh?

ooo00ooo

If you ever visit Belfast you might notice the huge banner which has been erected around the City Hall which says 'Ulster Says No.' The problem is that nobody seems to remember what the question was. It's probably something to do with the fact the Neighbours is shown here at a different time from the rest of the UK.

ooo00ooo

Unfortunately, Norn Iron is beset with terrible comedians (Jimmy Cricket,

Frank Carson, Ian Paisley et al.) Norn Irish people do not like to be reminded of this fact. They tend to take offence when anyone says "It's a cracker" at them.

ooo00ooo

Finally the people. Apart from the UFO spotters and various other nutters, the people are all very nice. They talk funny and drink Guinness but apart from that they're OK. Some are very nice indeed (especially the female ones.) Can there be any other WACCI people in this wonderful little country I ask myself?

ooo00ooo

#### MACHINE CODE AND DIY EPROMS

Last month I described a project to build a Sideways RAM module which simulated an Eprom. I also listed Basic program that bunged the code into the Eprom.

This month I'm supplying you with the necessary code to write RSX's (Resident System expansions or bar commands) and place them in the RAM, perhaps as a way of proto-typing code

to burn a real Eprom with.

The source code I've listed was written using MAXAM 1.5 and assembled as though it was running at hex address &C000 and onwards, although it is actually stored starting at &4000. This is because the code will eventually run at &C000 but assembling it to this address would cause the screen display to be corrupted.

The RSX's are for controlling a Citizen 120D printer and its choice of fonts: Elite and Pica. If you have a different printer you must check to see whether the control codes are the same and, if not, be sure to change them. It would also be a good idea to experiment with other control codes, eventually adding other RSXs to control the various printer options.

You should end up with an extension ROM which might even be quite useful.

Of course, the most important part of the Eprom code is the section which writes your name on the screen. During this section DE and HL must be preserved, so PUSH and POP them at the start and end of the code. The carry flag must also be set, so remember the SCF instruction. Otherwise you are

```

nolist
write "thecode"
;The Source Code for an Expansion ROM
;to control the Printer font on a
;Citizen 120D Dot matrix.
;written by Auntie John for WACCI.

set_mode equ &bc0e
txt_output equ &bb5a
lprint equ &bd2b

org &c000,&4000      ;The code THINKs its going to &C000
                    ;but we know its really going to
                    ;&4000 to stop the screen getting
                    ;all messed up.

db 1
db 1,1,1
dw name_table      ;These values must be here to keep
                    ;the ROM happy.

jp boot           ;The jumpblock starts here, with
jp reset         ;the jumps to the the four RSX
jp elite         ;routines.
jp pica

name_table
str "Pot Plant's Rom" ;The 'STR' command converts the
str "RESETPRINTER"  ;ASCII string to bytes and sets
str "ELITE"          ;the very last byte's 7th bit
str "PICA"           ;high (!).
                    ;You might prefer to use DB, thus:
                    ;DB "PIC","A"+&80

db 0               ;A byte to mark the end of the table

boot              ;The boot-up routine.
push de:push hl
ld a,2
call set_mode    ;Change to MODE 2.
ld hl,message
call print_message ;Write your name on screen.
pop hl:pop de
scf
ret

print_message    ;errr.. print a message.
loop
ld a,(hl)
cp 255
ret z
call txt_output
inc hl
jp loop

reset
ld bc,pdat0:jp send_printer

elite
ld bc,pdat1:jp send_printer

pica
ld bc,pdat2:jp send_printer

send_printer
lop
ld a,(bc)
cp 255
ret z
call lprint
jp nc,error
inc bc
jp lop
error
ld hl,offline:jp print_message

message
db 31,2,2,"WACCI Rom V0.1 ",164,"1989 AJ",13,10,10,255

offline
db "Printer is not on-line.",13,10,13,255

;printer control codes
pdat0 db 27,64,255 ;reset
pdat1 db 27,77,255 ;elite
pdat2 db 27,80,255 ;pica

end

```

Listing 1.

free to do what you want, such as setting different pen and paper colours or choosing different MODEs.

If you have any problems, you know where to find me.

ooo00ooo

### PASCAL AGAIN

At this stage on our exploration of Pascal it is only fair we introduce the Procedure construction.

A Procedure, as I mentioned in the introductory article, is a complete program in miniature. It may have its own variables and even (dig this) its own procedures.

A rather cunning addition is that Procedures may be passed values to play with (rather like user defined functions in Basic). These values - or parameters as they are known - may be numbers or variables and can be 'read access only' or 'read and write access'. I know it sounds complicated, so have a look at the example program in Listing 2.

The program defines two procedures, 'Hello' and 'Goodbye'. 'Hello' must be given a number to play with every time it is called and this number will be stored in the temporary integer variable called 'loop'. After the procedure has finished, 'loop' will cease to exist. This is an example of a 'read only' variable.

The 'goodbye' procedure does not need any values sent to it. Indeed, trying to send some would cause an error to be displayed on compilation.

The reason that Pascal provides these 'read only' variables is all to

```

program example1 (input,output);
  procedure hello (loop:integer);
  var count:integer;
  begin
    for count:=1 to loop do
      writeln('Hello!');
    end;
  procedure goodbye;
  begin
    writeln('Goodbye!');
  end;
begin
  hello(10);
  goodbye;
end.

```

Listing 2.

```

program example2 (input,output);
var number:integer;
  procedure double (var single:integer);
  begin
    single:=single*2;
  end;
begin
  number:=5;
  double(number);
  writeln(number);
end.

```

Listing 3.

do with the design philosophy of independent code modules. These modules are to be kept as separate as possible: making sure that a procedure cannot accidentally change the value of a variable is a good way to cut down on bugs.

If you really and truly want a procedure to be able to change a variable, proceed the variable name with the word 'VAR,' such as the next example in Listing 3. This example is a rather silly one in that instead of 'double' being a procedure, it would have been better if it had been defined as a Function but we'll cover those another day.

For homework I want you to write a Pascal program that will use procedures to write out the following pattern of asterisks on the screen.

```

*
**
***
**** etc.

```

### CORNERING THE COMPO

Finally, it's competition time. All you have to do is complete this month's LIFE cartoon (down and left a bit, yes that's it) in a witty and original way (now you know why you didn't get the joke when you looked at it before.) Send all your entries to the below address with your machine type and the winners will receive a game and everlasting fame, as their effort is published.

There is no need to cut-up your copy of WACCI (perish the thought) a sketch of your idea will suffice.

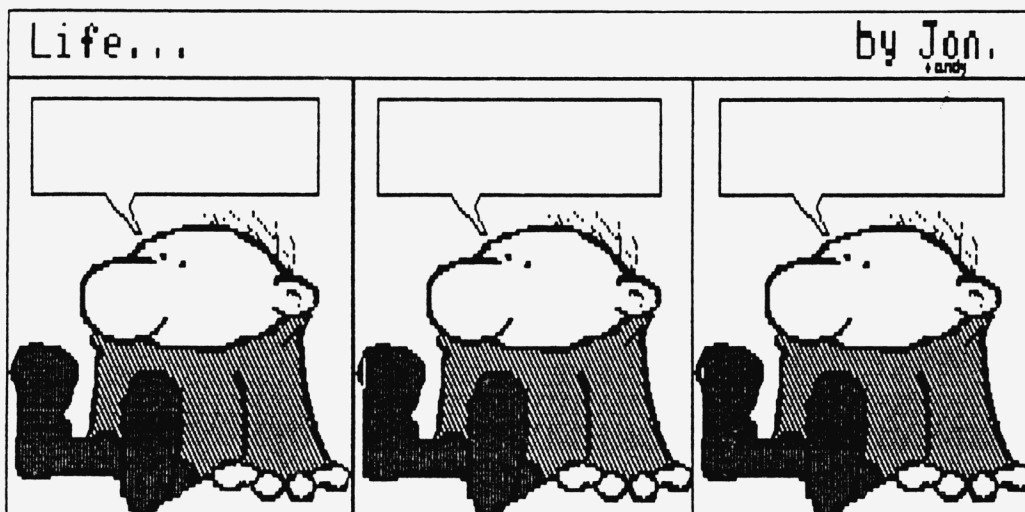
ooo00ooo

Did you notice (amongst a few others) a mistake in last month's WACCI? Our

esteemed editor got one of the writer's names wrong. Yes, instead of it being *Sallamander Rashed-Tea* it should really have been *Sallmonella Rich-Tea*. Till next month....

Your Auntie

AJ  
32 Bayview Road,  
Bangor,  
Co. Down,  
Northern Ireland  
BT19 2AR



# WOLLI



Coooooooooooooooooooo..... Hello my little courgettes, I'm back. I bet you've missed your intrepid roving megastar (that's me of course) haven't you. Don't fret, I have returned for at least one more month. I'll tell you more about that later.

--wollow--

First off let me get comfy before we have our little chin wag. That's better, are you sitting comfortably? I think you could sit a little bit closer, then I won't have to shout at you. That's the ticket.

How have you been keeping then? Oh dear, I'm sorry to hear that. Never mind, it should clear up if you keep using the ointment.

--wollow--

In the six months that I've been away from this column you may have heard some particularly nasty and spiteful rumours about where I was. Don't believe a word of them. The stories are merely the inventions of a few jealous people who would like to be as famous and popular as I am but haven't quite got what it takes.

The sad truth behind my absence is

that I've had to do so much jet setting, partying and general celebrity duties that I just haven't had the time to come and impart my words of wisdom to you. You could say that I've been rather tied up over the last few months, ahem.

--wollow--

## FROZEN WASTES

In the time that I have been away from you my rather large understudy (Keith somethingorother, the Sysop of Frozen Wastes) has been trying to fill in for me. I know that he's not nearly as entertaining as I am but he was the best I could get hold of at such short notice.

Anyway, the reason that I have returned is that my protegee is moving house at the moment. I'm not quite sure why he's having to move (I think it has something to do with his local Social Security Office being closed down) but it means that for the next few weeks his squalid little existence is going to be that bit more hectic than it usually is.

As a consequence his Bulletin Board (Frozen Wastes) is going to be off line for a while and he's not going to have time to write this month's WoLi.

When he realised that he wouldn't be able to write it he immediately came to see me. On bended knee, wallet opened wide and with tears streaming down his little chubby cheeks he begged me to write it for him. After helping myself to the contents of his dusty wallet (are white fivers still legal currency?) I agreed.

Enough of this banter let's get on and see what's been happening...

## AMSTRAD COMPUTER ABUSER?

Isn't it sad how this once mighty organ has gone all flaccid. Yes, the April issue had so many spelling mistakes that I thought I'd picked up a copy of the *Guardian* by mistake.

I see that both ACU and AA have seen the light and copied my lead. They have both now included a Comms column in their oily rags. It's a shame that neither of them have got it quite right though. A case of good idea but wrong formulae.

In the April ACU, *Steve Gold*, a well meaning, if somewhat serious, young man (I don't believe he actually owns a CPC) wrote a two page ditty that read more like an advert for Micronet (ZZZZzzzzz.) It included some right corks such as telling us that the first years subscription will cost you

sixty nine dollars and ninety five cents. (I'll have to pop down to the Bureau de Change.)

He even claimed that even during the 60 pence an hour charge rate Micronet offers excellent value? Yes I wondered what he was drinking when he wrote that line as well.

#### COMMS A TIME?

Meanwhile, over at AA, Fat MacDonald is doing sterling service by making Comms sound as inspiring as watching wet paint dry. For example: what did he choose to review in the April issue? Yes the Amstrad SM2400 modem and why not? I mean it's only been out on the market six months already (I reviewed it in October 88's WACCI) and a better modem (the Hi-Tech EC2400) has been released since. AA, first with the news as usual?

#### AMSTRAD INACTION ON-LINE

I know Old Pomme Fritte has had a winge about it before but it really does make me chuckle so much that I've really got to mention it again.

AA have a section on the CYMRUtel BB which they have basically turned into a very large plug for their magazine and special offers. There's no Amstrad CPC software to download, no original articles and not much to interest the CPC user. With the resources at AA's disposal you think they could have at least offered something on a par with WACCI on Line on the Gnome at Home?

--wolilow--

If this blatant commercialism makes you frown, don't worry there is a ray of hope. There is a, rather slow moving, interaction section which might amuse you slightly. Fat Macdonald is in there again, supposedly offering technical help and advice.

Unfortunately the poor lad is either a novice to the viewdata comms world or he really does intend for us to have a good laugh at his expense. New comms users can generally be spotted by the fact that they:-

a) forget that Gnomie Host software (like CYMRUtel) doesn't support wordwrap and so their text ends up with breaks in the sentences where there shouldn't be (like this one.)

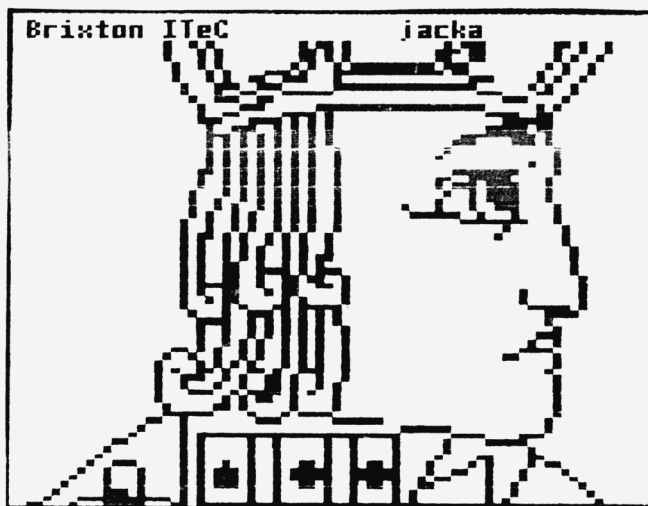
b) haven't sussed out how to work the control code system so their text is always in white (yawn.)

c) LEAVE THEIR CAPS LOCK KEY ON LIKE THIS. I don't know why, perhaps they think it looks better (it doesn't.)

Monsieur Mac Donald does at least spare us the last embarrassing tell tale quirk.

--wolilow--

Another source of amusement is that what little time he spends updating the area seems to be taken up apologising for the lack of time he

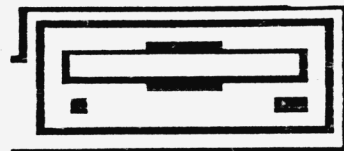


spends updating the board with his "late and lame excuses" (his words not mine.) When he's done this (as he did on the 26th January) he then doesn't turn up again for about a month (as he did on the 24th February) apologising for his absence. This, I suspect, leaves the main burden of overseeing the area down to CYMRUtel's Sysop who is a wizard on the Beeb but knows nothing about CPCs.

The Amstrad Helpline on 0277 231276 presents a far more useful system than AA's offering at the moment.

#### GNOMING IN THE GLOAMING

Something big is rumbling on the Gnome at Home BB and it's not TGG's empty belly. Nope, there are big changes happening to WACCI on-line area.



Our little WACCI member, Rob O'Donnell (who even makes Jeff Walker appear tall), known to Micronetters as The Mad Sysop, has taken over the area and is doing a massive re-vamp. Nope, for once I'm not exaggerating. His ambitious plan is to put all of the recent issues of WACCI onto the Gnome and incorporate the WACCI on line area into a CPC support area. This new special interest group will have a letters section and a chatline.

Have a look for yourselves (The Gnome at Home is on (01) 888 8894, viewdata, 8n1, 24 hrs a day) and see how far he has progressed.

#### MERCURY

I think that the BT Gremlins must be trying to beat Mercury by making it difficult, nay impossible to get through. I dialled the number, dropped the bird to frighten the snake, and was told that the only person with the knowledge was sick.

--wolilow--

Not to be perturbed I dialled again, waved the rod over the chasm and Zing!! A crystal bridge appeared. The witch on the bridge said, "Mr Smith isn't available. Try 0800 424194." I dialled and waited... and waited.

Back to Mr Smith's secretary. "Try this number." I did I was carrying the right articles and used the right password. The bear lumbered off and I was connected.

"Mercury Sales," said a disembodied voice. "Oh it does does it?" I replied

before realising that I had reached the inner sanctum. After 74 minutes of trying, I had got there. The thing with Mercury is that *everyone* knows about it but no-one wants to admit that they know nothing about it. *Cap in hand I asked.*

--wollow--

For a computer enthusiast, Mercury has quite a lot to offer. The business services offered by other dial up bureaux are emulated in a similar manner but with one subtle and important difference. The prices that they quote, though exclusive of VAT are the prices that you pay. There are no "Whoops didn't we tell you about that one" extras, and when you receive a bill from Mercury, it itemises the whole account telling you who you rang and how long and how much.

You are charged for the time that you are on rather than per unit of time and part thereof. This sounds good and when I tell you that the rates are cheaper than BT that should have you all out of your chairs and reaching for the chequebook. Wait, there is more. Firstly, you need a special phone. Secondly, not everyone can access Mercury.

#### HOW DOES IT WORK?

At present it only works for long distance calls so if your £900 phone bill is from hacking the local poly or sweet nothings to the loved one BT is still your poison.

When you make a call with a Mercury phone, there is an extra button to connect you to the Mercury network. this means that your call goes via BT to the exchange and is then routed onwards via Mercury lines. Mercury pay BT for the use of the "local" part of the call.

The Mercury phone can cost upwards of £50 and may take some time to pay for itself. As a rule of thumb Mercury say that if you have a phone bill of over £80 and it is made up of three quarters long distance and one quarter

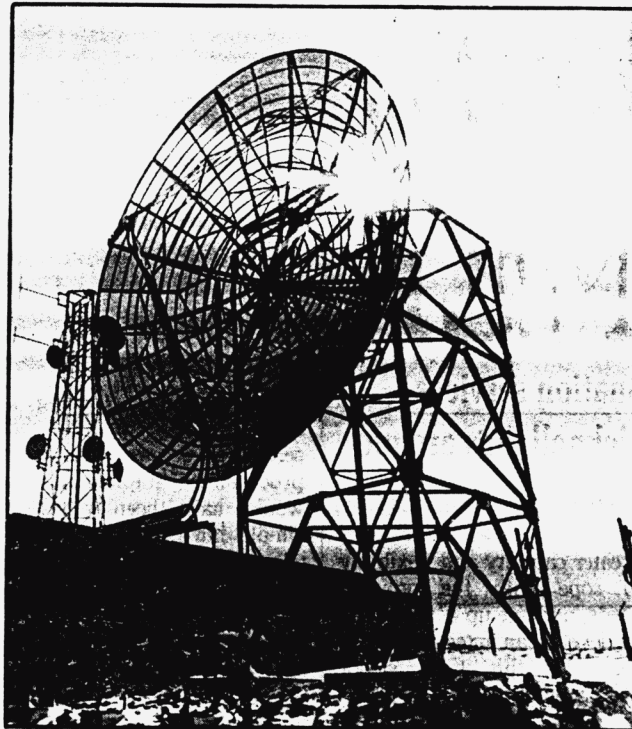
local, then you'd break even on their system. If it costs you any more than that, you're in profit.

--wollow--

With this and all the Telex and Fax services that they offer it looks like Mercury are heading in the right direction but a word of caution.

Mercury is new and like all new technology is bound to have teething troubles. Have it if you must but I advise waiting until a little more is known about it.

They still have to give me a satisfactory answer to the How do I access Mercury with an autodialing modem question? Perhaps a blue button atop my Linnet?



*Glenn Carey's Satellite TV dish*

#### GLENN WHO?

I must say a quick hello to Glenn Carey who sent me a letter of complaint the other day. Now it's a well known fact that Glenn is a couple of bricks short of a load. Glenn is a dedicated CPC464 user who stolidly refused to upgrade when the 6128 came along. This man actually prefers using software from tape than disc, he says the loading time gives him time to

collect his thought. The gist of his outburst was that he has been vindicated in his refusal to use discs. Read it for yourself...

*Dear Sir*

*I've just seen The Prince of Wales on the BBC news tonight talking about in-virus-mental-shoes and basically he's backing up everything I've said over the last four years about the danger of using 3" discs.*

*Charlie says it's all those bloody CF2s fault that the hormone layer over the North Pole is being destroyed. The discs are floating upwards into the sky leaving us with a 3" disc shortage down here and damaging the atmosphere up there. When hormone layer has gone it's going to let in all that ultra-violet light which causes cancer and will eventually erase all our Eproms.*

*May I say, once again, how wonderful a writer I think you are. I hope that if I grow up I become a warm hearted, wise, handsome, witty and talented person like you are. I still say they should make you Prime Minister, Pope or summat dead keen like that.*

*Must go now, it's locking up time. S'cuse my orange crayon again but it's all they'll let us use in here.*

*Glenn Carey*

I know it's a shame but please don't feel sorry for him. He's quite happy, in his own little way, watching SKY TV all day and playing with his little joystick.

#### AU REVOIR

Look at this. Silly megastar, moi, has run out of room for this month. Please stop crying dear reader, the page is getting a bit soggy. Don't fret, if Pummfrotter isn't back in time for next month's issue, I promise you I WILL come back and have another chat with you. Gosh it's tough at the top I can tell you. Till we meet again my little sweet-peas, *Byeeeeee.....*

# KEEP 'EM FLYING



Simulations old and new, KEN WALKER reviews them for you. (Wordsworth)



SIMSPOT  
55 GREENBANK ROAD  
DARLINGTON, DL3 6EN

## KEN WALKER GETS OF TO A FLYING START

This month's title is taken from an old Abbot & Costello movie (one of my favourites) in which they flew a plane in the style of my early efforts, eg looping the loop, when I was meant to be flying straight and nose-diving at every landing. After a solid month of prangs, I finally managed to touch down safely.

For those computer aces, who were never airborne over three years ago, Gremlin have thrown together a squadron of six vintage simulations.

--<-0-<---

*Flight Ace* (£14.99) is almost entirely devoted to combat, to keep joystick button freaks happy, whilst not being too difficult on the simulation side. Four of the games have been mentioned in past issues but are worth another look, if only to give a second opinion on how well they have flown into 1989.

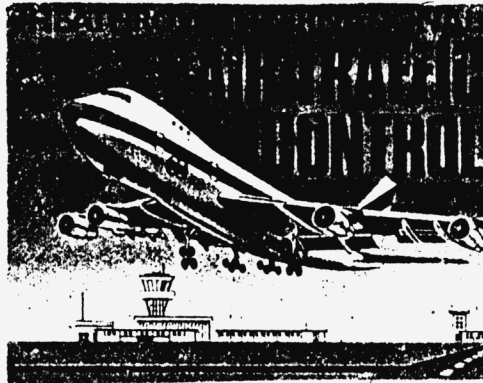
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### HEATHROW CALLING

The daddy of the bunch is *Air Traffic Control* which was first released by Hewson in 1984 and the only one without any action, although mistakes will cause considerable carnage across the runways of Heathrow.

As always, with complex simulations and this one is, a demo provides a useful insight into the routine expected of the controller. The screen display is split into three

sections. Along the top is reserved for radio messages between pilots and controller. The right hand side is for info on approaching aircraft at three stacking locations and the remainder is taken up by the controller's view of the airport radar screen. Besides the demo, there are seven levels of difficulty, from basic vectoring to



coping with emerging traffic and extra outbounds. *ATC* remains the only simulation of its type, although we have been promised *Kennedy Approach* (Microprose) on the Amstrad for the past year. This provides an interesting alternative to the rest of the package.

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### ONE OF THE FEW

*Spitfire 40* (Mirrorsoft) first flew in 1985 to general acclaim as the most accurate simulation of its time, it was also my first experience of flying. The screen is toggled between

control panel and cockpit view, by using the space bar, which gives a better view of the enemy during the dog fights over the Kent countryside. There are very few landmarks available to aid navigation and therefore constant reference to the map is required for finding the airfield and the enemy. It still remains one of my favourites, as the feel of the aircraft and engine sound are quite authentic, although combat sequences look more like an afterthought than a serious attempt to recreate the Battle of Britain.

--<-0-<---

### JUMP JET ACTION

The following year Mirrorsoft produced another winner in *Strike Force Harrier* which I still regard as the best of Amstrad fliers. Your target is the enemy H.Q. located in the North East corner of an operational area that includes 3000 mountains (must be Switzerland) 3500 SAM sites (or is it Syria?) over 1000 tanks and a few MIG23 fighters (I do believe it's Libya) Against these



overwhelming odds you have only two sidewinder missiles, three bombs and 250 rounds of cannon but there are four ground sites in support for re-arming and therefore must be protected, as you progress across the country in pursuit of the target.

The documentation which accompanied the original game was of the highest quality and gave a detailed insight into the capabilities and tactics of the *Harrier*. Unfortunately some of this is missing in the compilation but should not prevent enjoying one of the very best for gameplay and graphic quality.

#### ACES HIGH

*Ace* (Cascade) has the simplest of all controls for take-off and landing since thrust, undercarriage and the customary joystick movement are the only requirements. The aircraft is pure fiction but the combat sequences still rank alongside the best.



available and the attacking forces provide a stiff test in tactical warfare. There awaits a similar challenge to that of *Harrier* in wiping out superior enemy forces of tanks, helicopters, planes, missiles and even ships (when all the ground forces have been destroyed.)

The tactics for victory rely heavily on your ability to land and re-arm quickly to destroy the ground forces before they can overrun the allied bases.

Fortunately there is a practice mode which enables you to attack without suffering any damage from enemy fire (another feature from *Strike Force Harrier*.) For a beginner this is invaluable as there can be nothing more frustrating than being shot down within minutes of take off.

#### SKY HIGH WITH D.I.

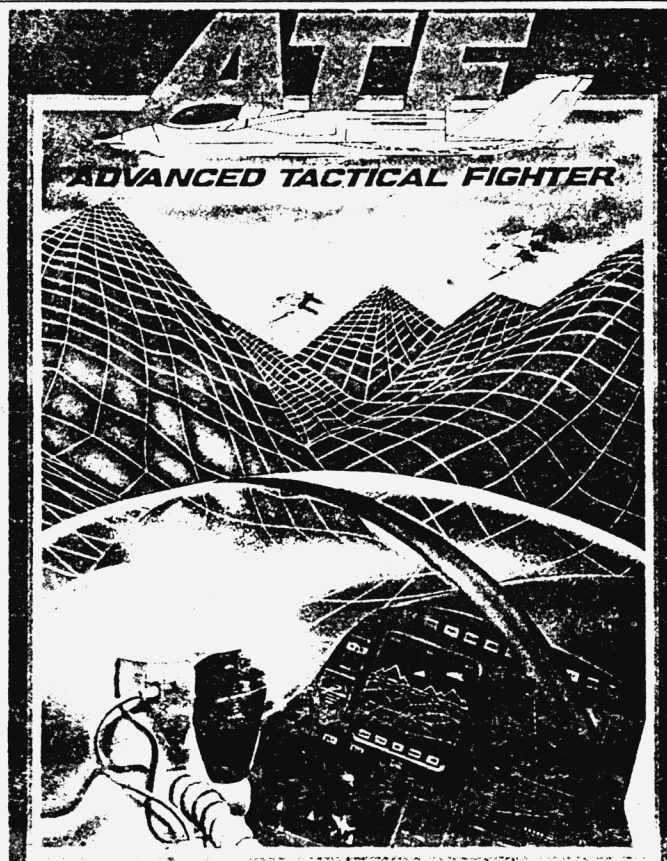
The last two in the package come from Digital Integration who can be relied upon to provide high quality simulations which began in 1984 with *Fighter Pilot* (not included.)

In the November issue, *Tomahawk* was compared with *Gunship* (Microprose) as both were based on the U.S. Army AH-64A Apache helicopter. There was little to choose between them in terms of graphics and gameplay but I did find *Tomahawk* easier in identifying enemy targets. Beside the familiar training mission,

there are another three levels of combat difficulty which require the total elimination of the enemy. In addition there are options for day or night flying, clear or cloudy sky and variable crosswinds. Taking control of a chopper requires a very different technique from the skills of flying a plane, as there are collective and cyclic controls to consider during flight, take off and landing are relatively easier though. Enemy targets include field guns, tanks and helicopters, which can be destroyed by an arsenal of 30mm cannon, rockets and guided missiles. Being a helicopter simulation complements the collection with yet another facet of pilot skill.

*Advanced Tactical Fighter* more an arcade/strategy game, which provides a view from behind the plane as it hugs the terrain on its way to enemy targets. Controls for take-off are similar to *ACE* but landing is even easier, press the automatic landing key when within range of the allied base and the computer does the rest.

Your objective is to force the enemy to surrender by destroying their land and sea forces, bases, communications



and industry. The plane is equipped with an onboard flight computer which displays a database for selecting targets, world map, weapon and plane status information. Following events on the world map and noting incoming messages closely resembles the layout of a wargame and the essential tactics for victory seem most suited to those who understand this type of game. There are three planes at your disposal to support the allies but unlike all the other games in the collection, this one does not have a demo or training mode.

--<>-0-<>--

#### THE VERDICT

Compilations are generally regarded as giving good value for money if you have not got two or more of the games. Considering I've spent over £45 since 1986 in collecting these games, £14.99 for the box must be a bargain, if you have an interest in combat simulations (if not, why are you reading this article?) Since all six games remain in my collection and are still being played, is the strongest recommendation I can give, buy it now.



# bankman



## THE FINAL PART OF ALASTAIR SCOTT'S SERIES ON BANK MANAGER

*Hooray. At last I have some space to spread my prose upon. I'd better get on with it quick before the Editor's generosity disappears and I'm cut back to only one page.*

Last month I was explaining how my *Trivia Quiz* program in The FSW Library (AMS - 80) accesses the Bank Manager directly. The control program loads Bank Manager, reads the questions in from disc and transfers them to the extra RAM using a routine similar to the one shown in Fig 1. (don't type it in - it's just a skeleton.)

When it comes to finding a question, reading it back and interpreting it, all I needed was something similar to that shown in Fig 2.

### AMEN

Here endeth the conventional stuff about Bank Manager. I had a look around the code using *Maxam 1.5*, and came up with an improvement and a surprise. In Fig 3. I've given you a new loader, with a few extra pokes.

If you use the wrong number of parameters with a Bank Manager command, or give them silly values, you'll get a "Bad Command" report. However, this is not what it seems.

Using the old loader, initialise Bank Manager and type :BANKOPEN with no parameters, giving you the error report. Then type PRINT ERR. The answer is 0 - not 32, as you would expect from the list of error messages and numbers in chapter 7 page 27 of the 6128 User Guide. So the Bank Manager error handler is deceptive -

```

:BANKOPEN,161          'record length 161
rec%=0                'start at first record
OPENIN"FILENAME"     'ASCII input file
FOR questions=1 TO 400 'Read each question
  READ qu$,a1$,a2$,a3$,a4$,nu 'from file in turn
  qu%=FNpadout$(80,qu$)      'Pad out each section
  a1%=FNpadout$(20,a1$)     'so that it is the
  a2%=FNpadout$(20,a2$)     'proper length
  a3%=FNpadout$(20,a3$)
  a4%=FNpadout$(20,a4$)
  nu%=MID$(STR$(nu),2)      'Convert number to string
  bank%=qu$+a1$+a2$+a3$+a4$+nu$ 'Add all the sections together
  :BANKWRITE,@rec%,bank$   'Write record to RAM
NEXT                   'rec% automatically points to
                       'next record
CLOSEIN               'close input file

```

Fig 1.

```

question=INT(RND*400) 'random question number 0-399
rec%=question'set record number
rec%=SPACE$(161)     'blank string to receive record
:BANKREAD,@rec%,rec$,question 'put record into rec$
qu%=LEFT$(rec$,80)   'split record into: question
a1%=MID$(rec$,81,20) 'answer 1
a2%=MID$(rec$,101,20) 'answer 2
a3%=MID$(rec$,121,20) 'answer 3
a4%=MID$(rec$,141,20) 'answer 4
nu=VAL(RIGHT$(rec$,1)) 'number of correct answer

```

Fig 2.

it produces an error which can't be trapped using ON ERROR GOTO.

Lines 190 to 210 alter the Bank Manager error routine so that it now executes the machine code:

```

LD A,22
RST 2,&B55

```

If you look at Fair Comment in issue 23, or assemble the mnemonics, you

should agree that they spark the ROM error handler into life and produce error 22, "Operand missing". Now reset the computer and use the new loader to load and initialise Bank Manager, then type in and run the following silly program:

```
54827 :BANKOPEN
```

Spot the difference You'll be given

```

100 ON ERROR GOTO 140
110 :BANKOPEN,0
120 ON ERROR GOTO 0
130 GOTO 220
140 MEMORY HIMEM-1318
150 loc=HIMEM+1
160 LOAD"BANKMAN.BIN",loc
170 CALL loc
180 POKE loc+369,86
190 FOR a=1304 TO 1308
200 READ b$:POKE a+loc,VAL("&"+"b$)
210 NEXT
220 NEW
230 DATA 3e,16,d7,55,0b

```

Fig 3.

the error message "Operand missing in 54827", PRINT ERR returns 22 and PRINT ERL returns 54827. Eureka - trappable errors, as the snippet of a program in Fig 4. will show you.

```

10 ON ERROR GOTO 40
20 :BANKOPEN
30 END
40 PRINT"Told you so"
50 PRINT"Error"ERR" in line"ERL

```

Fig 4.

Now for a surprise. Line 180 POKes the ASCII code (86) for "V" into a memory location bang in the middle of the RSX name table, and gives you three undocumented commands which, for some reason, were suppressed by Amstrad. If you have Utopia, typing :HELPR will reveal all. If you don't, I'll tell you their names: they're :VIEW, :VDU and :VDUO.

--++X+++--

Before you go any further, type MEMORY &3FFF. After a fair bit of experimentation, I found that each new command requires one parameter, which refers to one of two screens in memory. Screen 0 occupies &4000 to &7FFF (this is why I lowered HIMEM to &3FFF, thus protecting screen 0 from oversized Basic programs and vice

```

100 DEFINT a-z:MEMORY &3FFF
110 BORDER 0:INK 0,0:PEN 1
120 FOR hue=2 TO 15
130 INK hue,ROUND(1.85*(hue-1))
140 NEXT
150 FOR screen=0 TO 1
160 :VDU,screen
170 INK 1,2
180 GOSUB 310
190 INK 1,0
200 NEXT
210 screen=0
220 WHILE INKEY$=""
230 :VDU,screen
240 FOR delay=1 TO 100
250 NEXT
260 screen=1-screen
270 WEND
280 CLEAR INPUT
290 :VDU,1:CALL &BC02:MODE 1
300 END
310 MODE 0
320 FOR zigzag=1 TO 500
330 PRINT CHR$(201+(RND>0.5));
340 NEXT
350 FOR loop=1 TO 30
360 fillx=RND*640
370 filly=RND*400
380 colour=INT(RND*14)+2
390 MOVE fillx,filly
400 IF TESTR(0,0)THEN 360
410 FILL colour
420 NEXT
430 RETURN

```

'lower HIMEM as suggested  
'use 16 inks and  
'the whole spectrum (whoops)  
'of colours  
'do two different patterns  
'switch in appropriate screen  
'so you can see what's happening  
'draw pattern  
'black out zigzags  
'start off with screen 0  
'loop to switch between screens  
'display screen  
'slow things down a bit  
'toggle between screens 0 and 1  
'flush all keypresses  
'reset colours and screen  
'print random zigzag pattern  
'using two characters  
'ASCII 200 and 201  
'select area of pattern to fill  
'ink colour to be used (2-15)  
'has area been filled already?  
'yes - try new area  
'no - fill it in  
'that's all folks

Fig 5.

versa) and screen 1 occupies &C000 to &FFFF, as usual.

:VDU,0 lets you look at screen 0 and write on screen 0. In a similar fashion:-

```

:VDU,1 - look at 1 write on 1
:VIEW,0 - look at 0 write on 1
:VIEW,1 - look at 1 write on 1 *

```

\* Not 0 as you would expect (this must be a bug.) The beauty of these commands is that you can flick instantaneously between the two screens, unlike :SCREENCOPY and :SCREENSWAP. Using :VDU (or :VIEW), you can create some fast animation, as the program in Fig 5. shows you.

:VDUO is peculiar. Its parameter can take the value 0,-1,2,3,4 or 5. -1

alters the screen offset, and the others don't seem to do anything. In other words, I'm confused. If anyone can help, write in to Fair Comment.

--++X+++--

Okay. Now you can throw away your Bank Manager (no I didn't mean for you to do that literally) we are all going to have some fun. From now on CPC 464 and 664 users with RAM packs can join in.

Here's how you can access the extra RAM from Basic without any machine code. The RAM must be paged into user memory, you can't access it directly.

You can page one bank in at a time, and that bank will occupy memory locations &4000 to &7FFF until you put

the original memory back. The command you need is:- OUT &7F00,bank where bank takes the following values

- &C4 (196) - page bank 0 in
- &C5 (197) - page bank 1 in
- &C6 (198) - page bank 2 in
- &C7 (199) - page bank 3 in
- &C0 (192) - restore user memory

Suppose you wanted to store 256 bytes of code at the start of bank one. The sequence of commands would be the same as those shown in Fig 6.

To read the bytes from the extra RAM and store them at &8000 onwards The sequence of commands would be the same as those shown in Fig 7.

To emulate the OUT command from machine code, you would use:-

```
LD A,bank      or   LD A,bank-&C0
LD BC,&7F00    JP &BD5B
OUT (C),A
RET
```

The second routine uses a firmware call to &BD5B which is almost equivalent to the OUT statement. Notice that bank must now have the values 0,4,5,6 or 7 - in other words, subtract 192 from the values used before. This call is only implemented on the 6128, so you'll have to use OUT with the 464 or 664.

There's a problem with using bank switching from within Basic. Any control program which is longer than 16K will have parts temporarily overwritten by the paged memory, and may crash. So keep it short - for example, my Trivia Quiz control program is just 8K long.

Another two firmware calls, to &BD1F and to &BD55, allow us to fix the bug in the :VIEW command. The assembler routine in Maxam format below replaces both :VIEW and :VDU with one RSX: :SCREEN,v,w where w is the screen to write to and v is the screen to view. Both v and w must be either 0 or 1, as before. The routine at &BD55 is 6128 only, so the RSXs won't work on the 464 or 664.

To see whether machine code will work at a glance, a useful point to remember is that the highest 464

```
OUT &7F00,&C5      'page in bank 1
FOR address=&4000 to &40FF 'read 256 hex bytes
READ byte$        'from DATA statements
POKE address,VAL("&"+byte$) 'and store them
NEXT
OUT &7F00,&C0      'restore user memory
DATA 57,41,43,43,49 .... 'who?
Fig 6.
```

```
OUT &7F00,&C5      'page in bank 1
FOR offset=0 TO 255 '256 bytes
byte=PEEK(&4000+offset) 'read them from RAM
POKE &8000+offset,byte 'store them elsewhere
NEXT
OUT &7F00,&C0      'restore user memory
Fig 7.
```

```
ORG &8000
LD BC,table      ;usual RSX setup
LD HL,work
JP &BCD1
.table
DW name
JP screen
.name
DB"SCREE", "N"+128
DB 0
.screen
CP 2             ;two parameters?
JR NZ,error     ;no - error
LD A,(IX+2)     ;get screen to view
CALL convert    ;firmware needs
                ;different numbers
LD HL,0         ;no screen offset
CALL &BD1F      ;set screen to view

LD A,(IX)       ;get screen to write
CALL convert    ;same idea as before
LD HL,0         ;no screen offset
JP &BD55        ;set screen to write to
.convert
OR A            ;is screen = 0?
JR NZ,screen1  ;no - it must be 1
LD A,&40        ;yes - f/ware needs &40
RET
.screen1       ;screen = 1
LD A,&C0        ;firmware needs &C0
RET
.error
LD A,22        ;you've seen this before
RST 2,&B55
.work          ;RSX workspace
DS 4
Fig 8.
```

firmware call is to &BD37. If you disassemble a machine code routine and find any CALLs to addresses &BD3A to &BD5E, it accesses the 664 or 6128 firmware, and will only work on these machines.

Type MEMORY &3FFF and assemble the routine, after which CALL &8000 sets up the RSX. Don't worry if you haven't got an assembler, the assembled code plus a loader, an instruction file and some other routines is in the FSW library as Bank+ (AMS-156).

To round everything off, a look at the other programs in the FSW Library which make use of the extra 64K.

Multiprog (AMS-034): A simple but very

useful machine program by AJ. It adds two commands to BASIC which allow you to save a BASIC program in each of the four RAM banks and then load them back whenever you want.

One thing I didn't mention before is that RAM banks are unaffected by a soft reset (CONTROL-SHIFT-ESC): they are only cleared if the computer is switched off and then on again, or if the :BCLEAR command in Bank+ is used. So you can store a few programs, crash the computer, reset it and then use Multiprog to pick them up again  
Disced (AMS-050): A disc sector editor by Colin Turner, which uses the firmware routine at &BD5B, as I

explained earlier, to store a help screen in RAM. Jeff once asked me why the program doesn't work on 464 to 6128 conversions.

Apparently the firmware routine is confined solely to "true" 6128s. Why? Ask Amstrad, not myself

Nosey (AMS-071): Allows you to edit RAM banks directly, as well as view

expansion ROMs and the lower and upper BASIC ROMs. Guess who fell flat on his face and used the dodgy firmware call?

Poster (AMS-129): Having learned my lesson, I used OUT for this one I needed to store twenty Print Master fonts in memory for instant access. Each one occupied 4K; total 80K, which fits snugly into the 64K banked RAM

and the 16K user memory below it. Ahh such is life.

AGE128 (AMS-168): Another one of my DIY improvements. The banked RAM is now used to store the background behind a pull down menu, which is replaced when you're finished. Who said it was useless?

That's the end. (Low-key ending) AMS.

---

## THE WACCI HOMEgrown CPC SOFTWARE DISCS

---

<<By popular request (and a swift nudge in the right quarters from Joolz) here is the update about the FSW programs from The WACCI FSW Library discs -Ed.>>

### WACCI DISC 1 (AMS-001 to AMS-027)

Price £5.50

MASTERS OF MIDWORLD, MINIMON, CHARDES, HEADER READER, FRUIT WORM, OTHELLO, FOUR IN A ROW, THE WORLD, CHAT, JIGSAW-1, EDDY, XOX, PONTOON, PROGDOC, HELPING HAND, BOMBER, LIFE, LOCK'N'KEY, TUNNEL DIVE, HEAD, MEMDATA+, KEYDEF, DARTS, GRID WARRIOR, JIGSAW-2, STAR CHASE, UFO ESCAPE.

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---

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---

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---

A new company, *FLEET MICROSYSTEMS* with the expertise and experience of RAM ELECTRONICS behind it seems set to prosper if their first product, an EPROM programmer is a sound pointer.

oooOX0ooo

When I received it, there were no instructions included, a problem that would have normally made a review impossible but when the documentation arrived some dozen or so successfully programmed EPROMS later I was already comfortable with its operation.

oooOX0ooo

If, like me you have a ROM board you will all ready know the advantages of "instant software." Tasword gathers dust now, not because of the program itself but because Protext is always on-hand instantly. Type !P and in less than a second I am word-processing.

With an EPROM programmer, a firmware manual, a large dollop of free time and a reasonable knowledge of programming (yes folks, nasty machine language rears its ugly head) you should be able to put your useful utilities onto an EPROM.

oooOX0ooo

## THE HARDWARE

The Fleet programmer is an uncased PCB with an edge connector that attaches to the expansion port (floppy on 464) at one end and a ZIF socket (zero insertion force) at the other. A red LED warns when the programmer is in

use and a changeable link selects either 12.5 or 21 volts.

Taking its power directly from the CPC, the programmer has no separate power cable to foul the desk and lying flat behind the CPC puts little or no strain on the edge connector.

Placing an EPROM into the socket was a bit "fingers crossed" as the socket has no Pin One or indentation marked. At this point I'd like to be able to say that I traced the logic of the PCB and worked out which way round to place it. I'd like to say that but I won't. I looked at all the other chips on the board and as they all faced West, it seemed the logical thing to do. It was and it worked.

oooOX0ooo

## A NOISEY NOISE ANNOYS AN OYSTER

Lovers of *Karlheinz Stockhausen* and other *avant garde* krauts will love this programmer if only for the idyllic sound that it makes. On power up it makes a noise like a stuck pig in a synth factory and if I hadn't been warned that this was harmless, I would have been worried for the safety of my Z80. The squealing noise continues while the programmer is connected and even with the sound right down still squeaks. As an EPROM programmer though, it was music to my ears.

oooOX0ooo

## SOFTWARE

The software provided gives a simple menu choice selection to chose whether 2764, 27128, 27256 chip and fast or

slow programming. There is no editor as such as it is *assumed* that anyone developing their own software will be more comfortable with the Assembler /Editor that they already use.

An on board check to see if the EPROM is blank and a series of menus for the type of EPROM, *Verify, Save, Read, Display memory*, and finally the big red button, *PROGRAM*. Files can be loaded from Disc/Tape, saved to Disc/Tape, EPROMS can be read into memory for editing and re-development and then saved for loading into an editor such as *MAXAM* or *PYRADEV*.

oooOX0ooo

## IN USE

The programmer is a doddle. EPROM in, check for blank and type, load file for blowing onto it and Robert got married to your mum's sister. A gentle chug through 16k or so of file at normal or high speed and you are ready to take on *ARNOR, ROMANTIC ROBOT, KDS*, and all the other companies who have proved that ROM software works.

oooOX0ooo

## IS THAT IT?

If it sounds easy, that's because it is. This is a well made product which is easy to use and has friendly software. The *difficult* bit comes when you need to sit down and develop the software. Like any programming, it is time-consuming and requires dedication if you are to succeed in writing commercial software.

*Dave Gorski*, author of the *Cage Comms ROM* and the *Amstrad XTRA ROM*,

told me, "ROM software isn't very much different to ordinary software but it must observe certain protocols in the way that it is laid out. It must initialise itself and set up available commands and a screen message. It must use a particular way to call user programs from within it."

I was able to borrow software to convert Basic files to binary and thus run my own Basic by loading it from an EPROM and the missus is tickled pink at the "Instant ASDA Shopping list Generator" that I presented her.

oooOX0ooo

#### THE MANUAL

Very useful and simple to use with two printed sheets of A4 instructions which were more than adequate. I tried several different makes and voltages of EPROM in it and was only able to get a failure on one, a particularly quirky MITSUBISHI EPROM that has given problems in every programmer I have used (including the industrial ones.)

oooOX0ooo

#### THE VERDICT

Available from FLEET MICROSYSTEMS for £69.95 This is a device that a dedicated programmer and even a scrambling hobbyist like myself will use for years.

COST	***
VALUE	****
EASE OF USE	*****
QUALITY	****

#### AND THERE'S MORE...

Now that we've all rushed out and spent granny's duvet money on a Fleet Microsystems Chip Toaster, it's only fair that we look at the way in which programs are put onto an EPROM. This listing is in assembler and is not intended as a complete program, more a shell into which you can comfortably seat your routines and proggettes.

There, easy, isn't? It only now remains for me to tell you the old joke about the guy who's wife made him program EPROMS for a vocation. At least, that is what I thought I heard him say.....?

```

ORG &C000
;ROM PREFIX
DEFB1 ;ROM Type (background)
DEFB1 ;mark
DEFB1 ;version
DEFB1 ;modification
; COMMAND TABLE
DEFW name_table ;set up commands available
JP initialise ;screen message on power up
JP user_program_a ;
JP user_program_b ;
;user programs

.name_table
DEFB "EXAMPLE PROGRA", "M"+&80 ;This is not a user command.
;Operating system uses this to
;power-up. MUST be included
DEFB "PROGRAM", "A"+&80 ;!PROGRAMA
DEFB "PROGRAM", "B"+&80 ;!PROGRAMB
;etc.
DEFB 0 ;terminate name table
;ROM INITIALISATION ON POWER UP

.initialise
PUSH DE ;preserve registers while
PUSH HL ;print is executed
CALL print
DEFB 13,10, "An Example ROM",13,10,10,0 ;title of ROM
;printed on power up
POP DE ;restore registers
POP HL ;this part should only be
AND A ;included if you want
LD BC,&33 ;a workspace to be saved in
SBC HL,BC ;top of memory.
SCF
RET

;PRINT (for use by initialise)
.print
;a simple routine to print
POP HL ;a string of characters which
.printloop ;starts at address hl
LD A,(HL) ;(ie following 'CALL print')
CALL &BB5A
INC HL
OR A
JR NZ,printloop
JP (HL)

;USER PROGRAMS
;start of user programs
.user_program_a
LD A,&E0
CALL &BB5A
RET
.user_program_b
LD B,&50
LD A,&E0
.upbloop
CALL &BB5A
DJNZ upbloop
RET

```

Fig 1. The guide to blowing your own Eproms.

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# PROTEXT Grows!

# New MAXAM rom

## PROTEXT FILER - New Release!

This invaluable program will keep your address lists or other datafiles in good order. Includes: datafile management from within Prottext; extremely flexible file sorting program; label printing and mailmerging using the datafiles. Send SAE for full details.

WACCI PRICES: Disc £19.50

## PROTEXT OFFICE - New Release!

Invoice printing program as used by Arnor. Easily configurable for your own requirements. Works from within Prottext. Produces invoices/credit notes/delivery notes/statements. Includes Prottext Filer. Send SAE for full details.

WACCI PRICES: Disc £27.25

## PROTEXT

Prottext is without doubt the most sophisticated word processor you'll find on any home micro. Its ease of use and advanced range of features are normally only found in business systems costing many times more. Widely praised throughout the Amstrad press, Prottext is rightly acclaimed as the No.1 word processor for Amstrad CPC owners.

- \* Super fast \* Works with any printer \* Flexible find and replace \*
- \* Layout stored with text; normal & decimal tabs, left & right margins \*
- \* Word count \* Versatile print options; incl. headers/footers, page nos. \*
- "Extremely powerful editing features ... superb search and replace" AA*

WACCI PRICES: Rom £31 Disc £21 Cass £15

## PROSPELL

Typing and spelling errors are simple to make and frustrating to miss. But by using Prospell, you can produce documents that are error-free. Prospell is an spelling checker that points out any odd words or dubious spellings.

- \* checks Prottext text in memory \*
- \* checks file on disc from Prottext/Tasword/Amword/NewWord/WordStar \*
- \* over 33000 words \* room for thousands more of your own \*
- \* up to 2000 words/min \* find words and anagrams - great for crosswords \*
- "Fast, efficient, easy to use" YC*

WACCI PRICES: Rom £27.25 Disc £19.50

## PROMERGE

More than just simple mail merging for multiple standard letters!

- \* integrates perfectly with Prottext \* read data from keyboard or file \*
- \* conditional printing so you can create your own personalised letters \*
- \* use the built in maths functions to produce invoices etc \*
- \* microspacing - to even out the spaces between words \* typewriter mode \*
- \* link files together at print time \* Reformat while printing \*

WACCI PRICES: Disc £19.50

## PROMERGE PLUS

All the features of Promerge, plus:

- \* Edit two separate files in memory at once; copy blocks between them \*
- \* Background printing - allows you to print and edit at the same time \*
- \* Box mode - cut and paste any rectangle to create newspaper columns \*
- "You'll have a set-up that can thrash any 8-bit word processor for speed...and even some 16-bit programs for power" PCW*

WACCI PRICES: Rom £27.25

## ROMBO

All rom software requires a rom expansion system. Its benefits include zero loading time and maximum memory available for text, data, programs etc. Remember; Utopia and the extra commands of Promerge Plus are not available on disc. Fits CPC464/664,6128.

WACCI PRICES: 8 socket rom box £27

## MAXAM 1½ - New Release!

At last, due to massive public demand, we have produced an enhanced Maxam ROM especially for Prottext users. The editor has been taken out, and you can now assemble your source code simply by typing ASM while it is in Prottext's memory. Debugging is now easier with comprehensive diagnostics and the ability to change register contents and resume from breakpoints. Other new features include load/save machine code from Prottext/Maxam and extra assembler directives. All the other Maxam features are included.

WACCI PRICES: Rom £23.25

## MAXAM

The classic Assembler/Monitor/Editor for developing Z80 machine code.

- \* Plain English error messages \* Disassembler \* Memory editor \*
- \* Menu driven full screen editor \* load/merge/save/print/find/replace \*
- \* Mix BASIC and machine code \* or assemble directly from editor \*
- \* Use the editor to edit BASIC programs saved in ASCII \*

*"This piece of software should be held up as an example of what can be done by programmers who care ... buy one now!" E & C*

WACCI PRICES: Rom £31 Disc £21 Cass £15

## BCPL - new low price!

Flexible, fast, easy to learn programming language. Comprehensive I/O libraries including graphics and sound. Example source files supplied, including a space invaders game, full screen editor and all the libraries. 60 page manual covers the language and gives details of the libraries.

*"Designed for humans, not computers" CWTA*

WACCI PRICES: Rom £23.25 Disc £19.50

## UTOPIA

50 new commands available without having to load a program, including:

- \* Text screen dump \* Graphics screen dump to Epson compatible printer \*
- \* disc utilities - disc format, disc copy, copy files, sector editor \*
- \* useful function keys automatically set up; easily define your own \*
- \* BASIC programming utilities \* ROM management commands \*

*"UTOPIA is by far the best utilities rom...it's worth buying a rom board just to plug it in" AMSCLUB*

*"Utopia seems to be in a class of its own" AMTIX*

WACCI PRICES: Rom £23.25

## C (6128,CP/M+)

Integrated C programming system. Full implementation of K&R standard.

- \* Floating point \* 32 and 16 bit arithmetic \* Optimising compiler \*
- \* Linker \* I/O and maths libraries \* Conditional compilation \* Macros \*
- \* Editor is program mode of Prottext \*

*"In typical Arnor fashion, they've taken their time and got it right" AU*

WACCI PRICES: Disc £39

## MAXAM II (6128,CP/M+)

Enhanced version of Maxam for CP/M+. Extras include:

- \* Single stepping \* conditional breakpoints \* symbolic debugger \*
- \* Editor is program mode of Prottext \* Macro assembler \*

*"Now the best gets even better" CWTA CPC*

WACCI PRICES: Disc £39

## PROTEXT (6128,CP/M+)

Combines all the features of Prottext, Promerge Plus and Prospell into one integrated program. German program & dictionary also available (Prowort).

*"Prottext is just so fast and versatile once you have used it - it is like putting Nigel Mansell against a CS" PYATW*

WACCI PRICES: Disc £47

Available from WACCI, 9 South Close, Twickenham, Middlesex, TW2 5JE



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WACCI EDITED BY GORDON O'DONNELL

Conceived and Founded by  
JEFF WALKER



Hello everybody! May I welcome you to the new look WACCI magazine! As you may have already gathered WACCI is now under new management! Yes this month sees the start of a whole new era in WACCI's history!

I'd like to take this opportunity to introduce myself and tell you all about the new developments. My name is Gordon O'Donnell and I have taken over Steve Williams's job running the club and editing the magazine. Steve has moved on to much bigger and better things editing the "ICL OPD Today" magazine (16 bit technology is marvellous isn't it!)

Things have been a bit hectic since I took over the running of the club hence I have had to reduce the size of this issue in order to get it out to you on time.

Don't worry though, by next month with any luck, we should be able to afford to treble the number of pages that appear in the magazine.

#### SPECIAL OFFER

As you may have noticed, on this month's front cover, I have been able to set up a WACCI "EXCLUSIVE" SPECIAL DEAL with The Royal Society for the Protection of Birds.

Yes, for every new recruit that an existing WACCI club member manages to persuade to join, WACCI will send you an RSPB £2 gift voucher redeemable against the purchase of a pair "ZEISS WEST" 10 x 408 Dialyt binoculars! Don't waste time getting started though, we really need the new members and so this offer is only open until May the 3rd 1989.

#### WRITERS

Yes, this could be your golden opportunity to write for the WACCI magazine.

Unfortunately most of the regular contributors to WACCI seem reluctant to continue writing any more so here is your chance to get your name in print.

I would be happy to hear from anyone willing to contribute articles to the

magazine. The subject does not necessarily have to be about the CPC range of computers (I use an Amiga 500 kit myself) or indeed about computers at all.

My hobby is bird watching and I would be interested in receiving any matter from club members concerning the subject. Also I want to include some features on not only different makes of computer but maybe even different User Groups around the country. If anyone wants to write about, say, the Southern Counties Amiga User Group (of which I am the treasurer) I would be more than ready to publish it.

#### FSW LIBRARY

Unfortunately, due to lack of time, I have been unable to include the FSW catalogue or the SUBs and Offers form with this issue. Don't worry, hopefully I will be able to send them out next month.

#### HELP!

I don't actually own a CPC (Amiga's are my first love) and so it's going to be a little difficult for me to help you with CPC specific problems until I do. If anyone can lend me one, in the meantime, I would be very grateful.

#### THIS ISSUE

Well I do hope you like this issue, it was a bit of a rush job to produce it but I am quite pleased with the end product. We have a previously unpublished article by Alastair Scott and the start of a totally new regular monthly column concerning the Commodore Amiga and related problems.

Don't forget to encourage a friend to join WACCI, the club desperately does need some new blood and ideas. G. O'Donnell

# aunty alastair scott's printer problem page

AUNTY ALASTAIR SCOTT HELPS YOU WITH YOUR PRINTER PROBLEMS

I've been an agony uncle on the Amstrad Action Helpline for 24 months, and my two most common problems concern printers.

Every month I get several letters asking the same questions:-

- 1) "How do I get the £ sign to print? It always comes out as a #!"
- 2) "Is it possible to print fractions?"

#####

If you have an Epson compatible printer, the first question is easily answered. The character set present when you switch on is the USA one, selected with:

```
BASIC: PRINT#8,CHR$(27)*R*CHR$(0)
ASCII: ESC R 0
CODES: 27 82 0
```

With the USA set, sending # to the printer results in # being printed. With the UK set, selected with:

```
BASIC: PRINT#8,CHR$(27)*R*CHR$(3)
ASCII: ESC R 3
CODES: 27 82 3
```

sending # to the printer results in £ being printed. So to print a row of twenty £ signs, all you need do is type:

```
PRINT#8,CHR$(27)*R*CHR$(3)STRING$(20,"#")
```

and to print a row of twenty £ signs, type:-

```
PRINT#8,CHR$(27)*R*CHR$(0)STRING$(20,"#")
```

Protect can distinguish between # and £ because it has a special routine which examines all output to the printer, finds out if one of these characters is being

sent, and inserts the appropriate control codes. Have a look at the "Redefine characters" option after typing SP to see what happens.

If you are quite certain you will never use either # or £, you can select a different default character set using the DIP switches somewhere inside the printer. If you do both word processing and programming, this is unsatisfactory - you'll end up with things like "WINDOW £1,10,30,12,16" being printed if you select the UK character set as default and forget to select the USA character set before typing LIST#8. Unfortunately, if you want to LIST#8 a BASIC program which contains both # and £, there is no way of printing both characters, and you'll have to make do with one or the other - normally #.

If your printer doesn't use the ESC R x combination to select different character sets, you will normally be OK; have a look in the printer manual and replace ESC R x by whatever is needed. However, daisywheels usually use ASCII code 129 to represent the pound sign. If you type:-

```
PRINT#8,CHR$(129)
```

nothing much will happen! This is because the CPC designers, in their infinite wisdom, designed the printer port so that any ASCII code over 128 sent to it had 128 subtracted before printing, so you are really sending CHR\$(1). The only way to obtain the £ sign is to fit a KDS 8-bit printer port, which costs £20.

#### END BIT

That's all for this month. Next month I'll be showing you how to print out fractions. If you have any ideas for this new column, please forward them to the new WACCI HQ.

A MEAGRE COLUMN

for the owners of the

by Jack

Trampoline Compered Oars

A straw poll of the WACCI contributors has brought to light serious charges. It seems that in the aftermath of the "Where have all the WACCI contributors gone?" saga we have missed the very crux of the matter.

ooo0ooo

While we were intrepidly searching under Simon Rockman's bed in the hope that he'd "borrowed" them for A.C.U. it seems that they had all been enticed away to the Scunthorpe Novatel by a paid agent of Commodore Business Machines.

No longer to be found skulking around Brentwood in the hope of a free game to review, they had been courted and won by the slick, sinful, sensuous sounding Amiga.

In view of their fine work for WACCI in the past and to help them make the transition to the 16 bit bus, this is the first of a series entitled, "Know your AMIGA."

ooo0ooo

In the AMIGA box you get a varied assortment of goodies. For use in cold climates there's a big warm humming box on the mains lead, ideal as a handwarmer on the cooler mornings.

The portable ladyshave is in fact a T.V. modulator with that all important 23 pin D connector that no-one has in stock so you can't make your own leads.

To prove that either a) you are a contortionist or b) you are clever enough to look in a silly place, the disk drive is in the side somewhere.

To make it difficult for anyone to use your AMIGA when you're not around, there's

no BASIC, thats on a disc somewhere. When you switch on, you get a message to put in a workbench disc and from there on down it gets confusing.

Having loaded the workbench, you find that the program that you want is in fact on another disc which will not run from the workbench so its a complete reset and start again.

ooo0ooo

Multitasking is the ability to experience a full system crash caused by not keeping an eye on the memory counter while demonstrating to an astonished Spectrum owner that it can run seven totally useless programs which only serve to demonstrate multi-tasking simultaneously.

Bit Planes are those nasty Airfix kits of Sopwith Camels that can only be assembled and painted properly by thirty nine year old children.

For colour blind users the AMIGA can produce over 4000 shades of monochrome.

ooo0ooo

NEXT MONTH we will be looking at the Command Line Interpreter if we can find anyone who understands it.

Jack the Tramp

**\*\* PART EXCHANGE DEAL \*\***

Your 6128 and £400 gets you the AMIGA special EASTER DEAL. An AMIGA 500 and lots of useless P.D. programs that draw fractals, calculate mandelbrots and catalogue your discs...

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Life...

by Jan.

April is the first month of the...

...financial year.

Dah! I'm depressed.



The Thirty-first

# WACCI

April 1989 Vol 4 No 4 £1.25

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