Vol.10 №10. June 1997.

FORMAT

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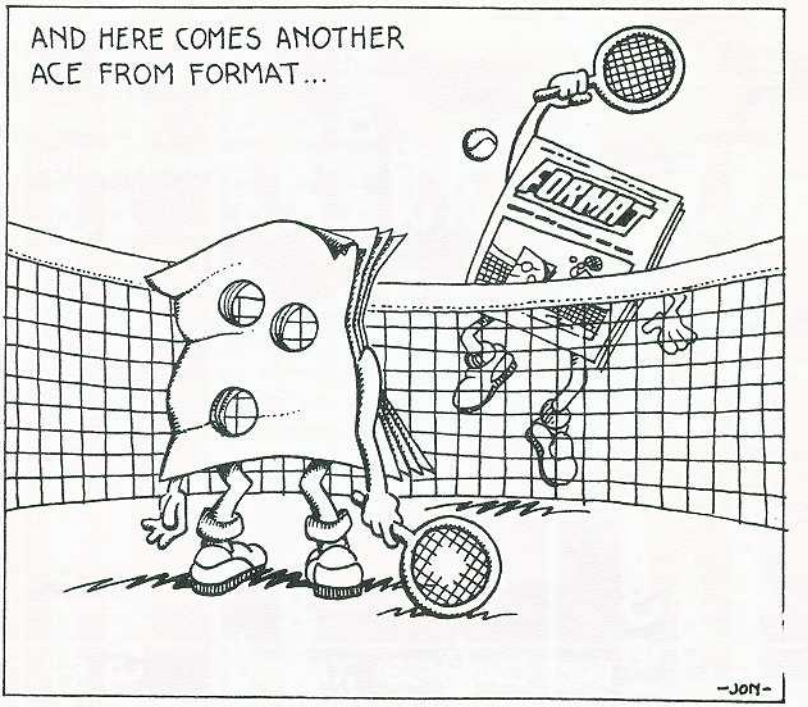

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NEWS ON 4

AMSTRAD NO MORE

Alan Sugar has surprised many people by announcing the break-up of his Amstrad electronics empire. While it was far from the heights of success it had in the early 1980s, Amstrad was still a major name in consumer electronics including phones, computers and satellite TV receivers.

The break-up has been on the cards since Sugar failed to sell his computer division to Psion (manufacturers of the organizer style machines) last year. However, the announcement still caught most industry watchers on the hop.

The plan, still subject to court approval, will see Amstrad shareholders receive shares in Violin Technology, currently a partly owned subsidiary, which will be floated off to full independence. They will also receive: shares in Betacom which is already a separately quoted company but which Amstrad owned 70% of the shares, a 'loan note' worth £1.63 per Amstrad share, and a litigation voucher which will entitle the owner to a share of the proceeds of the court action against American hard drive manufacturers (see story in last month's News-On-4).

The Amstrad name will *cease*, except possibly as a trade mark for one or other of the new companies.

Alan Sugar, with a personal wealth still estimated at £175million, will now have a roll as a director in both companies although he will no longer control either. He plans to look for and develop new mass market products rather than aiming at niche markets as in recent years.

SHORTAGE OF SKILLS

Britain is suffering a drastic shortage of Information Technology skills as we move towards the new century, a top industry figure has revealed.

Anthony Parish, director general of the Federation of Electronics Industry has said "There is a serious shortage building up, not just in the computer systems and software design field, but also in other technical skills."

The FEI is a leading trade association working to promote the interests of the industry. It feels that there is far too little emphasis being given, both by schools and by government, to training a new generation of computer programmers, technicians and users. They, and others, are now calling for the setting up of proper apprentice schemes to help fill the gap.

Could it be that the fall off in the use of *real* computers in the home - with the advent of all the flashy games consoles, will mean that the average child at the end of the 90s will be less computer literate than his older brother was at the end of the 80s (having had the benefits of home computers) - it will be very sad if this turns out to be true.

CLOCKS AWAY (NEARLY)

News of the release of the SAM_Clock last month was just a bit premature. A small mistake of the board has led to problems that we have now found a solution to and we will get the first batch out just as soon as we can. ***Bob..***

YOUR NEWS HERE...

Come on readers, we need your news. Anything related to computers which you think will interest other SAM and Spectrum owners. Just jot it down on a piece of paper, add your name and membership number, and send it off to us at the usual address. Please mark the envelope 'News' so that we can give it the priority it deserves.

Remember, you get three months extra subscription for every news item we print, so don't rely on others to send in an item you have seen - send it off yourself and earn our thanks as well

This months credits:- Paul Bloomer.

Thank you, thank you, thank you. It seems we scored a bit of a hit last month with the reprint of the historic first Introductory issue of ***FORMAT.*** Glad you liked it. As I said last month, so much has changed in ten years, especially the quality of typesetting and printing. That first intro issue was done on a BBC using MirrorSofts *Fleet Street Publisher* and a Brother M1009 9pin dot matrix printer - at the time I (and a lot of others I hasten to add) thought it was wonderful - my how the time has changed our outlook. Still, it was nice to hear the people liked the 'look back to our roots'. Although I did have one person say that he thought it was a feeble way to fill space - which just proves you can't please everyone.

Still, while we are on the subject of filling space - the box of unused articles for ***FORMAT*** is beginning to look a bit empty - so I could do with you all putting in a bit of effort over the next few weeks and sending in a few bits and pieces - even the smallest items help you know. Please, if not for me, then do it for Jenny, she likes to have the proof reading to do - and if I can't keep her occupied with that then she will find other mischief to get into.

Jenny is working on the 1997 issue of the *Spectrum and SAM Resource Directory*. If you are producing/selling anything that is Spectrum or SAM related, and you were not in last years directory, then please drop Jenny a line and she will send you a form. Priority is being given to those who were in last years (forms have already been sent to them) and as space in the directory is limited, if you want to get a mention in this years issue you better contact her quick. Last years directory went down very well with readers when we printed it in the September issue, and we have also sent it out to all new members as the have joined - we want to make it as comprehensive as possible but, as I said, space is limited.

The PC side of INDUG is still growing, a little slowly at the moment but that is partly the time of year. To help the expansion continue, which benefits everyone including the Spectrum and SAM users as well, we really do need your help. When we have held membership drives in the past they have always been fairly successful but lots of you have come back with the same reply "but I don't know anyone with a Spectrum/SAM." Well the same cannot be true when it comes to PCs. You all know someone with a PC and all we want you to do is send us their address - and leave the rest to us. We will send your friend/colleague details of INDUG and FORMAT PC and if they sign up as members not only do you have the satisfaction of having helped in our growth, but we will also reward you with a bonus 3 months subscription for your efforts.

One final thing before I finish and rush ***FORMAT*** off to the printers. John Wase gets married on the 2nd July. I'm sure you will all join in the best wishes we send to him and Lorrie for their special day. Hope everything goes without a hitch. Nice to round off an editorial on such a nice subject - now *who else* can we marry off I wonder?

Until next month.

Bob Brenchley, Editor.

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The advanced computer that retains a user friendly appeal which makes even the beginner feel right at home. An easy to learn Basic and disc operating system (no messing with slow tapes here) will allow you to do things you never thought possible before. Your SAM comes with a very easy to read manual and everything you need to get started - it even has some pretty impressive demo software for you to run, just to give you a few ideas for starters.

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We are able to supply a small number of professionally reconditioned SAM Coupé computers. These have been fitted with a modern style disc drive, a version 3 ROM, new keyboard unit, and are supplied with new manuals and DOS system disc. They carry a full 90 day full return to base warranty. Because these are reconditioned machines there may be slight blemishes to case or base.

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The original slot-in slim-line drives produced for the SAM Coupé are no longer made. If your existing drive is now showing signs of terminal decline perhaps it is time you gave your SAM a new lease of life by fitting a modern style (PC type) floppy drive.

In most cases we find the faults with old drives are mechanical (due to worn heads, stepper motor failure, etc.) In these cases you need an Internal Interface Type 1 to which you transfer the 1772 disc controller chip from your old drive - thus making the upgrade as cheap as possible..

If you want to fit a second drive (or first drive, if you don't have one or the 1772 on your old drive is faulty) then order a Type 2.

Both types are available in either kit form or ready assembled. For the kit you will need screwdriver, soldering iron, solder and a reasonable level of soldering skills. All you need for the assembled version is a screwdriver. Full fitting instructions are given and the only other thing you need is a standard PC type disc drive from your local supplier (cost about £20 to £25).

If you have any doubts about which type of interface you need, or any questions about the drive fitting in general, then please give the FORMAT hotline a ring on 01452-412572 and they will be pleased to help you.

	Kit Form	Assembled
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INTERFACES

These interfaces work with both the SAM élite and the SAM Coupé unless otherwise stated.

SAM MOUSE SYSTEM. Interface, High Quality Mouse and the Software to drive it. The interface plugs into the mouse port on the back of SAM so you don't need a spare expansion socket. More and more software now works better if you use a mouse. ***Only £39.95***

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SHORT • SPOT

YOUR HINTS, TIPS AND PROGRAMMING IDEAS

Edited By:- John Wase.

June's the month of roses. Problem is, you need lots of manure to get good roses, and there's sure plenty of that flying round. I'm trying to write June and then July **Short Spot,** and then partly assemble August, as time will be very tight on my return from honeymoon. Please, therefore, do help by continuing to send in stuff - you've been great for the last few months; keep it up!

I start with a letter I've had a little time, because I always intended to experiment a little. And indeed, some time in the future I might have time. At the moment, however, sickness and an impending marriage (which seems to take an inordinate time to sort out) both mop up this commodity, so I'm hoping other readers might be able to do something.

Cliff Jackson of Southampton was at the autumn Gloucester show last year, and started talking about the problems of communicating with Spectrum, SAM and the Z88. He followed this up with a letter which, to my shame, as I explained, I've not been able to deal with properly. In his letter, Cliff mentions that many communication problems can arise from the same cause mentioned more recently; that of Sinclair's quirks in labelling. We've had this with televisions; now for comms. Firstly, Cliff warns that all Spectrum manuals and books follow the Sinclair habit of referring to the pins by their ' opposite' function in the way that manufacturers of serial printers and modems usually do - allegedly to simplify connections!

Thus TXD (transmit data) is an 'output' on SAM and all other machines Cliff knows *except* for the Spectrum and Interface 1, where the Data Output pin is labelled RX (Receive Data). To connect two SAMs or Spectrums we merely wire the links as follows:-

TXD	to	RXD
RXD	to	TXD
CTS	to	DTR
DTR	to	CTS
Ground	to	Ground

To link a SAM to a Spectrum, however, we must link pins with similar names - e. g. TXD to TX. Apparently this caused no end of frustration during Cliffs early RS232 experiments until Sir Clive's little joke had been rumbled! So check to make sure what the connections are, particularly with the Z88!

Another problem that Cliff has come across is that some other machines, including IBM PC-compatibles, often use more than the five pins named above. In the case of the PC and the Psion 3a, Cliff has experimented and found that linking certain pairs of pins will produce satisfactory results. Although this may not always achieve full handshaking, the higher speed of the PC usually keeps everything in order, but the Psion prefers a Baud rate lower than 9600 when receiving, probably because of the way text is stored internally (RAMdisks, etc).

Cliff writes that he developed his Sam Transfer Utility (STU) some years ago. It was like this. It started off several years

ago as a sluggish Basic routine. To speed it up a bit, Cliff developed a M/code routine to drive the RS232 ports at very high speed. More recently, the Basic part was altered and customised for a friend who had an Amstrad Notepad: that machine is Z80-based, like the Spectrum and Z88, has neither disc nor disc interface, so that keeping files is difficult, and has a limited memory; rather less than a Spectrum 48.

STU was therefore developed to handle only text files, but it should be capable of modification to handle code files, too. Cliff tells me that a simplified Basic shell could be created to speed loading and simplify use. The latest version has had to be modified to avoid a clash with Nev Young's Hard Drive software, which loads 100 bytes to 16384 where 150 bytes of Cliffs code used to live, but it's been re-assembled at 17384, and seems to work quite happily with the hard drive.

Cliff asks if this aspect is worth pursuing.

As far as I was concerned, I always felt that the Z88 could be used rather like a sort of portable hard disc, so that text files could be fed into it from a number of different machines, and out again into still different ones. All you need is appropriate file headers for the different machines, and some way to get them talking one to another. However, I had neither the time nor the technical expertise to follow this up. The idea of code files, too, looks rather useful.

Well? Over to you, readers. Is this an idea worth pursuing? Would it make transferring programs and data/text files easier? If there's enough interest, we'll print details of Cliffs program, and take it from there. We need *your* input though, if you want to see this developed. Many thanks, Cliff.

Blessed if I can understand what went on last month. Having had all the trouble with Bjorn Nyberg's Elite editor last month, I couldn't believe my eyes when I took the same disc this month, loaded it up onto my good 'ol Speccy, and saved off five - yes, five - copies with no trouble at all. What's more, I couldn't for the life of me reproduce the way in which it loaded onto the SAM, with all those funny tokens like LABEL. Anyway, it's all right (well, it's OK on my gear anyway), so here we have it. Bjorn wrote that in spite of being in the middle of hectic business operations for his US clients, he managed to unearth this gem from his files. It's a superb cheat on the Spectrum for the much-lauded game *Elite*. Bjorn *thinks* it was published in ' Popular Computer Weekly', though with various messes including removal remnants around, he can't be sure.

Anyway, try this one for size!

```
 10 REM elite editor
 15 REM An Elite file saved
    from ELITE is required to b
    e   loaded before creating
      new files
 20 LET s=30000
 30 LET a=3
 40 PAPER 0: BORDER 0: INK 7: C
    LS
 50 GOSUB 1180
 60 PRINT AT 10,2;"Load in a SA

    VED Elite file..."
 70 RANDOMIZE USR 40000
 80 CLS
 90 PRINT AT 0,0; PAPER 2; INK 7;"
      ELITE EDITOR by J.Page

 100   PRINT  '"This  editor
    allows  you  to  equipyour
    craft  wit  h  any  of  the
    weapons  a  vailable  on
    planets up to t ech 14."
 110 PRINT '"It also allows you
    to buy as     many goods as
    you wish-(0-255) units of
    each."
 120 PRINT '"It is best to get
    a s many goods as possible
    an d then sell them to gain
    v ast amounts of cash."
```

```
130 PRINT AT 15,0; PAPER 2; INK
    7;"Press any key for main
    menu
140 PAUSE 0
150 GOTO 260
160 CLS : PRINT AT 0,0; PAPER 2
    ; INK 7;"ELITE EDITOR LOAD
    FILE J. Page "
170 PRINT AT 10,6;"Loading Elit
    e file."
180 RANDOMIZE USR 40000
190 BEEP .07,21
200 FOR n=0 TO 7
210 LET name=PEEK (30000+n)
220 IF PEEK (30000+n)<32 THEN G
    OTO 240
230 PRINT AT 15,5;"COMMANDER ".
   PRINT AT 15,16+n;CHR$ name
   240 NEXT n
250 PAUSE 100
260 CLS
270 PRINT AT 0,0; PAPER 2; INK
    7;"ELITE EDITOR MAIN MENU
    J.Page "
280 PRINT AT 5,11;"1:Weapons"
290 PRINT AT 7,11;"2:Goods"
300 PRINT AT 9,11;"3:Save FILE"
310 PRINT AT 11,11;"4:Load FILE

320 PRINT AT 19,0;"Press corres
    ponding key please."
330 IF INKEY$="1" THEN GOTO 380
340 IF INKEY$="2" THEN GOTO 680
350 IF INKEY$="3" THEN GOTO 950
360 IF INKEY$="4" THEN GOTO 160
370 GOTO 330
380 CLS
390 PRINT AT 18,0;"Keys Q-Up; A
    -Down; SPACE to select; Z t
    o Erase; R to Return to Men
    u."
400 PRINT AT 1,0; INK 4;"Green=
    Selected"; AT 1,18; INK 3;"
    Magenta=Erased"
410 PRINT AT 0,0; PAPER 2; INK
    7;"ELITE  EDITOR  WEAPONS
    J. Page "
420 RESTORE 1140
430 FOR n=3 TO 14
440 READ a$,p
450 LET pe=s+p: LET ink=PEEK pe
    +3
460 PRINT AT n,7; INK ink;a$
470 NEXT n
480 PRINT AT a,4;">"; AT a,26;"

490 PRINT AT a-1,4;" "; AT a-1,
    26;" "
500 PRINT AT a+1,4;" "; AT a+1,
    26;" "
510 LET a=a+(INKEY$="a" AND a<1
    4)-(INKEY$="q" AND a>3)
520 IF INKEY$=" " THEN GOTO 560
530 IF INKEY$="z" THEN GOTO 620
540 IF INKEY$="r" THEN GOTO 260
550 GOTO 480
560 RESTORE 1140
570 FOR n=3 TO 14
580 READ a$,p
590 IF a=n THEN POKE s+p,i
600 NEXT n
610 GOTO 420
620 RESTORE 1140
630 FOR n=3 TO 14
640 READ a$,p
650 IF a=n THEN POKE s+p,0
660 NEXT n
670 GOTO 420
680 CLS
690 PRINT AT 0,0; PAPER 2; INK
    7;"ELITE EDITOR    GOODS
    J.Page"
700 PRINT AT 1,0;"Max units eac
    h=255"
710 PRINT AT 20,0;"Key r for me
    nu or SPACE to select an it

720 RESTORE 1150
730 FOR n=3 TO 17
740 READ a$,p
750 LET pe=s+p: LET u=PEEK pe
  760 PRINT AT n,6;a$; AT n,24;u;
   "units "
770 NEXT n
780 PRINT AT a,3;">"; AT a,20;"

790 PRINT AT a-1,3;" "; AT a-1,
    20;   "
800 PRINT AT a+1,3;" "; AT a+1,
    20;" "
 810 LET a=a+(INKEY$="a" AND a<i,
    7)-(INKEY$="q" AND a>3)
820 IF INKEY$=" " THEN GOTO 850
830 IF INKEY$="r" THEN GOTO 260
840 GOTO 780
850 RESTORE 1150
860 FOR n=3 TO 17
870 READ a$,p
880 IF a=n THEN GOSUB 910
890 NEXT n
```

```
 900 GOTO 690
 910 INPUT "units of ";(a$);t
 920 IF t<0 OR t>255 THEN GOTO 9
     10
 930 POKE s+p,t
 940 RETURN
 950 CLS
 960 PRINT AT 0,0; PAPER 2; INK
     7;"ELITE EDITOR SAVING FILE
     J.Page "
 970 PRINT AT 15,7;"COMMANDER "
 980 DIM c$(1,7)
 990 INPUT "COMMANDER ";c$(1)
1000 FOR n=0 TO 6
1010 LET code=CODE c$(1)(n+l TO
     n+l)
1020 PRINT AT 15,n+20;CHR$ code
1030 POKE 30000+n,code
1040 NEXT n
1050 REM
1060 REM
1070 PRINT AT 20,2;"Start tape a
     nd press any key."
1080 PAUSE 0
1090 RANDOMIZE USR 40014
1100 BEEP .07,21: PAUSE 30
1110 PRINT AT 20,2;"Press any ke
     y to goto menu   "
1120 PAUSE 0
1130 GOTO 260
1140 DATA "Large CargoBay",48,"
     ECM system",49,"Pulse Laser
     ",50,"Beam Laser",51,"Fuel
     Scoops",52,"Escape Capsule"
     ,53,"Energy Bomb",54,"Energ
     y Unit",55,"Docking Compute
     rs",56,"Galactic Hyperdrive
     57,"Mining Lasers",58,"Mi
     litary Lasers",59
1150 DATA "Food",23,"Textiles",2
     4,"Radioactives",25,"Slaves
     ",26,"Liquor/Wines°,27,"Lux
     uries",28,"Narcotics",29,"C
     omputers",30
1160 DATA "Machinery",31,"Alloys
     "32,"Firearms",33,"Furs",3
     4,"Minerals",35,"Gold",36,"
     Platinum",37,"Gem Stones",3
     8,"Alien Items",39
1170 DATA 55,62,255,17,104,0,221
     ,33,48,117,205,86,5,201,62,
     255,17,104,0,221,33,48,117,
     205,194,4,201,142
1180 RESTORE 1170
1190 FOR n=40000 TO 40027
1200 READ pok
1210 POKE n,pok
1220 NEXT n
1230 RETURN
1240 REM An Elite file saved
     from ELITE is required to b
     e     loaded before creating
       new files
```

Many thanks Bjorn.

The next item is from Peter Williamson of Sleaford, of 'Diary' fame. Peter mentions a couple of things. Firstly, he tells us that he was very interested in Geoff Bridges revised 'Diary File' program. Peter particularly liked some of the more exotic commands like **LENGTH,** though he comments that his program could extract the day number from the date, whereas Geoff s has to have it given. More importantly, he mentions lines 170,180,290 and so on where the dreaded INPUT **R#2'Text ;** variable was used. Peter mentions that he has never come across this before, it didn't work, but when the R was deleted, giving the usual INPUT **#2,** it all worked normally. "Explanations, please," says Peter!

Thanks, Peter, for all your contributions, but before I comment on the last item, I would like also to deal with a piece from John Saunders of Chalfont St Giles, who starts by mentioning the **PRINT R#0** oddity that he suffered, and mentioned that he was intrigued that it was not apparently spotted immediately for what it was. John suggests that he does such idiocies all the time - clumsy fingers!

In point of fact, John, you are right in saying this is an idiocy, and wrong in suggesting you're to blame. If you look, you will see that the R occurs always in an input/output statement where streams and channels are being dealt with, and I suspect, therefore, it's another of those corruptions that have crept into our translation program. Bob

seems to have ironed it out, now, so all should be well. [Well the truth is, I can't be sure. It happens in front of a hash sign but is not predictable - however, I'll try to prevent too many slipping through. *Bob.]*

Another point that John makes concerns Rusty Atkins' letter and Bob's comments in the January issue; these comments again refer largely, but not exclusively, to SAM. John keeps his data under the program's happy jurisdiction in some DIM arrays, and finds this very hassle-free. As for Rusty's concern over losing data from DIM arrays - fear not. First, a very early line in your program should be something like:-

```
20 DEF KEYCODE 196; GOTO. . . .
```

the gap to be filled with 'MENU', 'INDEX', a line number, 'the foot of our stairs', or what you will. You don't even have to use **GOTO,** if you wish to put your MENU (say) as a DEF **PROC (e.g.** DEF **KEYCODE** 196; "MENU"). This, of course, supplants F4's function of RUN. Just remember to save a suitable line number, and do so as often as necessary when entering data.

Most of John's home-grown stuff uses data in DIM arrays, names, addresses, birthdays, accounts and investments, etc. John finds this most reliable and easy to access, though he does use discs in duplicate or triplicate, in case of corruption. Fortunately, John finds this sort of occurrence is very rare.

And now we come to John's burning question. What are the advantages and disadvantages of this method of saving information as opposed to using DATA files? Indeed, are there any? If any expert genius (there, that lets me comfortably out!) could clarify the manual's enigmatic brevity, John, for one (and lots of others, John), would be extremely grateful.

Finally, here's a little piece at the end of John's letter. John writes that he has a number of program attempts; many uncompleted, such as the kaleidoscope program with which Mr Thomson found so little difficulty. However, occasionally a cerebral stirring (what does he stir it with - Ed) does initiate an idea which leads to a program. In this case, the initiator was the monthly bank statement. The last entry was a few pence credit in interest on the modest balance. This was so tiny that John wondered (if it was indeed correct), how it was arrived at, and could it be checked. SAM to the rescue!

```
10 REM MONTHLY INTEREST CALCU LATOR
12 MODE 4: PRINT PEN 10; "NOT
    E:      "                FOR
    DAYS WHEN NO TRANSACTIONS
    TAKE PLACE, ENTER ZERO (0)
    WHEN ASKED FOR BALANCE." 15
LET TOTINS=0, RINS=0
17 INPUT "ENTER INTEREST RATE (GR)
     :- "; RINS
20 FOR Y=1 TO 31
25 PRINT AT 18,0; PEN 15; "DA Y   Y
30 INPUT "BALANCE:- "; BAL
32 IF BAL=0 THEN LET BAL=BALA 35
LET BALA=BAL
37 PRINT AT 6,0; RUNNING BALA
   NCE: "; BAL
40 LET AINS=RINS/365*BAL 60
LET TOTINS+TOTINS +INS
70 PRINT AT 12,0;TOTINS; AT 1
    2,11; "p.      GR"; AT 13,0;
     TOTINS*4/5; AT 13,11;"p.
                  NET"
80 NEXT Y
```

After a sensible interval, the program took shape, and to John's astonishment, the answer SAM gave was within 0.75p of that on the statement - nobody had been cheating (well; that time)!

John also mentions that this is the sort of useful thing he likes doing with his SAM: surely there must be lots of others out there apart from the valuable

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'regulars' who might care to come across with something of this sort also!

Bless you, John, and I do like the jottings!

Finally, to end with, I have a couple of little pieces to be typed in from our evergreen Roy Burford of Norton, Stourbridge. Noting that the 16th Birthday of the ZX81 was celebrated recently, Roy dug out his ZX81, dusted it off (16K version with typewriter-replacement keyboard), and found it in working order. He was then able to transcribe and convert the programs from the screen, since he didn't have a printer. Here they are now as ZX Spectrum Basic.

The first is a game 'depthcharg' where one attempts to sink a submarine from a destroyer. Roy's retained the original algorithm and left the pixel conversion constant 4 uncombined. A little tightening of the hit/miss calculations was necessary as the ZX Spectrum has 64 pixels per character compared with the ZX81's 4. Naturally, it runs faster on the Spectrum and, if necessary, can be made easier to play if the addemdum 15 in line 80 is reduced; ys is the submarine depth (row or line).

Here it is.

```
 1 REM M.James and S.M.Gee. Th
    e Art of Programming the ZX
    81. 1983. p23. Depth Charge
    Game.
 2 REM Revised BCRB 201288. No
   w on ZX Spectrum+ 128K 1104
   97.
10 PRINT "Try and destroy the
    submarine"
11 PRINT '"by depth charges fr
    om your"
12 PRINT "destroyer.      Press
    'F' to"
13 PRINT '"release your depth
    charge.''''" E to exit."
14 FOR z=0 TO 500: NEXT z
20 LET me=0: LET hc=0
30 LET f=0: LET h=0: LET xs=0
 60 GOSUB 600
 70 LET x=0
 80 LET ys=INT (RND*5+15+1/2)
 90 LET y=2
100 GOSUB 200
110 PRINT AT 0,0;"Hits= ";hc;T
    AB (10);"Misses= ";mc
120 IF f=0 THEN LET xd=4*2*x+7:
     LET yd=4*35+3
135 IF INKEY$="e" OR INKEY$="E"
     THEN STOP
140 IF INKEY$="f" OR INKEY$="F"
     AND f=0 THEN LET f=1
150 IF f=1 THEN OVER 0: PLOT xd
    ,yd: PLOT xd+1,yd: PLOT xd+
    1,yd-1: PLOT xd,yd-1:
    GOSUB
    300
160 GOSUB 400
170 IF h=0 THEN GOTO 100
180 GOSUB 500
190 GOTO 30
200 PRINT AT y,x;"  @@";
210 LET x=x+1
220 IF x>27 THEN PRINT AT y,x;"
    LET x=0
240 RETURN
300 OVER 1: PLOT xd,yd: PLOT xd
    +1,yd: PLOTxd+1,yd-1:PLOT
    xd,yd
310 LET xd,yd-1
320 OVER 0: PLOT xd,yd-1: PLOT xd
    +1, yd: PLOT xd+1,yd-1:PLOT
    xd,yd
330 IF yd=4*35+3 THEN LET mc=mc+
    1: LET f=0
350 IF f=0 THEN OVER 1: PLOT xd
    yd: PLOT xd+1,yd-1: PLOT xd+
    1,yd-1: PLOT xd,yd: OVER 0
360 IF BS (xd-4*2*xs-4*6)>4*3
    THEN RETURN
370 IF yd<>(43*4+3)(4*2*ys)T
H
    EN RETURN
380 LET h=1
390 RETURN
400 PRINT AT ys,xs;" @@•";
410 LET xs=xs+INT (RND+1/2)
420 IF xs>27 THEN PRINT AT ys,x
s;" ": LET xs=0
440 RETURN
500 LET he=hc+1
510 FOR i=1 TO 20
520 PRINT AT ys,xs;"•,•<";
530 PRINT AT ys,xs;" ;
540 NEXT i
```

```
550 RETURN
600 CLS
610 FOR i=0 TO 31
620 PRINT AT 3,i;"f";
630 PRINT AT 21,i;"B";
640 NEXT i
650 RETURN
```

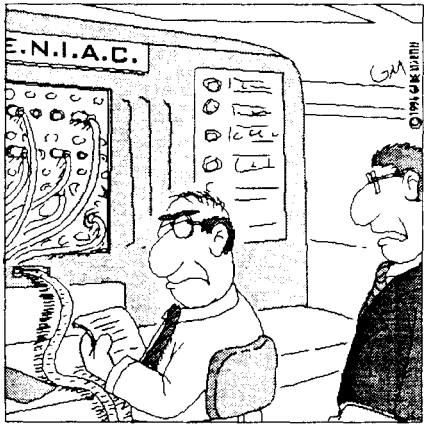
Finally (never say you don't learn nuffin' from *FORMAT),* an educational one, again converted, called 'addquiz'. Roy's 6 year old grand daughter *(nearly* 7, grandad)! likes this one, though she is very hesitant in case she's wrong. Conversion is easy, but you don't need all the CLS commands, since the Spectrum is inuch better at carrying on working while you're watching!

```
  1 REM J.Inglis. Simple Maths.
    Tables and Numbers. Granada
    . 1984. p24. Quiz, Addition
  2 REM Revised to ZX 81 16K by
    B.C.R.Burford 220694. Now t
    o ZX Spectrum+ 128K 150497.
 15 PRINT " Addition Quiz"
 20 PRINT "
 30 PRINT '"What is your name?"
 40 INPUT n$
 70 PRINT '"Hello ";n$
 80 GOSUB 390
 90 LET score=0: LET spec=0
100 FOR q=1 TO 10: PRINT
110 LET x=INT (RND*10)+6
120 LET y=INT (RND*10)+6
150 PRINT "What is the answer t
    o this:"
170 PRINT 'x;" + ";y;"= ";
180 INPUT ans
185 PRINT ans"
190 IF ans=x+y THEN GOTO 205
200 GOSUB 350
201 PRINT " = ";x+y
202 PRINT
203 GOTO 210
205 GOSUB 310: GOSUB 390
220 NEXT q
225 PRINT "
240 PRINT "Final Score""
270 PRINT n$;" ";score
275 PRINT
280 PRINT "Computer ";spec
300 STOP
310 PRINT "Correct. One mark sc
    ored."
320 LET score=score+1
330 GOSUB 390
340 RETURN
350 PRINT "Answer Incorrect.";
360 LET spec=spec+1
370 GOSUB 390
380 RETURN
390 FOR d=0 TO 50: NEXT d: RETU
    RN
```

And that's all for this month. No, I do feel just a bit guilty that I'm off next month on a honeymoon, while you all have to work away. So just to keep you happy, there's a nice little Number Puzzle from Simon Turk to keep you happy. Remember - try and make it easy for me - I'll have only minimal time to get the August pages together. So do, please keep all your snippets coming to me without them I can't put a column together. Please send them to:-

John Wase,
Green Leys Cottage,
Bishampton,Pershore,
Worcs,
WR10 2LX.

See you next month.



"**Sorry Bob, but the budget wont run to a new computer this year, so you'll just have to make do with the one you've got...**"

Is ELSE 5 foot 2?

By:- John Saunders.

In the March issue (10/7) our revered and hard-working Editor [Ooo. don't lay it on too thick, they might think I'm paying you. ***Bob.***] invited more articles and such from members, and suggested that a piece about SAM's use of the Basic 'If....Then.... Else' procedures might be acceptable. I had a niggling thought that this was the subject of an article not too long ago and a bit of probing disclosed Part 3 of ' Basically Speaking' by David Finch, which appeared in January, 1994 (7/5).

Now I thought this piece to be pretty comprehensive and had reservations about re-treading this quite elegantly laid path, particularly as I have no illusions about my knowledge of Basic programming. I would prefer to continue to be instructed. However it is a well known concept that fools rush in.

This 'ELSE', for instance, should be readily accepted as impersonal. Should you read "If I go sunbathing with my fiancee then I take my trunks and sun-glasses and little else", you may be tempted to ponder as to this ELSE - is she five foot two and 36,22,36? This is not Basic - the 'IF-THEN-ELSE' of Basic is totally cerebral, and it is very worth while turning back to Vol.7/5, pages 21 & 22 to go over it with David. His examples turn on everyday logic, concerning, for instance, temperature, like **IF** cold **THEN** switch on heater **ELSE** switch on fan; boiling this down to generalities, he wrote: -

```
IF (something is true)
   THEN (do this) ELSE
   (do that)
```

It is very nearly as easy as that. Could we put it all into a little program? Try this:-

```
10 INPUT "Type a number: ";a:
   PRINT a;';
20 INPUT "Type another number :
   ";b: PRINT b
30 IF a>b THEN PRINT AT 6,4;
    a;" is greater than ";b
40 ELSE PRINT AT 6,4; a;" is
   less than ";b
50 PAUSE: CLS: GOTO 10
```

Doesn't work? No. Although 'a' can be less than 'b' SAM ignores line 40. Don't know why; but if you combine lines 30 and 40 (using a colon before ELSE) all will be well. ... Nearly!

But try putting in two equal numbers. It's the logic, isn't it. If a=b, then 'a' is not greater than 'b' so the **ELSE** clause applies, wrong that it is. So it really needs another line, say:-

```
25 IF a=b THEN PRINT a;" = ";
  b.
```

That is not very tidy, is it. AND not complete! Because SAM still has a look at line 30 and decides that 'a' is not greater than 'b', so his comments are that 'a' is both equal to and less than 'b' - poor old chap. So you have to say *don't bother to look at line 30* by putting **GOTO 50** at the end of line 25 and that's a little untidy, and getting complicated!

There should be a better way. What if

you use the 'long IF'?

```
10 ..... etc
30 IF a<>b
40 IF a>b THEN PRINT AT 6,4;a
      is greater than ";b: EL
      SE PRINT AT 6,4;a;" is
      les s than ";b
45 ELSE PRINT AT 6,4;A;" is e
   qual to ";b
48 END IF
```

Now that is a lot neater. So nesting the **IF..THEN...ELSE** clauses is accepted by SAM, in a manner similar to the nesting of **FOR...NEXT** loops, i.e. you must finish the middle `nest' off before using the **END IF.**

The **ELSE** at line 45 has referred back to the IF in line 30 by finding that 'a' is *NOT* not equal to 'b'!

The lines also demonstrate how one can use the facility. In the middle of a program one often needs to divert the flow of the program (say to a DEF PROC) when there is a certain difference between two (or more) variables.

I confess to being puzzled by the profusion of lines in the simple program on page 41 of the SAM Manual, and wonder if it would be useful to discuss a similar, more practical demonstration of the 'long IF'. David inspired one - by thinking about temperature. How about controlling a biggish greenhouse? for example, over a range between -10 and 30 degrees C. A simulation cannot be achieved with much authenticity, but a RaNDom reading may give the idea:-

```
10 LET temp=RND (40) -10, sun = RND(
    1): PRINT 'Temperature = ";
    temp: IF. NOT sun THEN
    PRINT "      cloudy"
20 IF temp>2
30 IF temp<6 THEN PRINT AT 4, 3;"
    KEEP VENTS CLOSED.": EL
    SE PRINT AT 4,3;"OPEN VENT
    S."
40 IF TEMP <25 AND TEMP>16 AN
    D sun
42 PRINT AT 0,17;"sunny"
45 PRINT AT 4,3;"BRING SHADES
    OVER.": ELSE IF temp>29:
    PRINT AT 4,3;"SPRINKLERS
   ON."
50 END IF
70 ELSE FROST
75 END IF
80 PAUSE : CLS : GO TO 10
200 DEF PROC FROST
210 PRINT "FROST WARNING"
240 END PROC
```

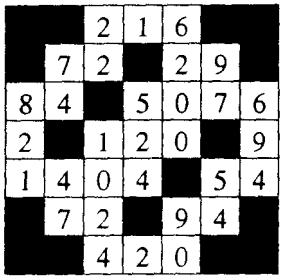
It may be probable that the programmer would use a DEF PROC for temperatures less than 2 degrees, so as to save undue complication in the preceding lines, but it would be feasible to enter appropriate conditions after line 60, perhaps beginning with **ELSE IF.**

Wouldn't it be interesting to connect a real greenhouse by computer with electrical switches instead of PRINT statements? Of course, it is done in real life - but hardly with a SAM! (But why not?)

Anyway, I don't think I can say much more about the **IF-THEN-ELSE** concept but would be very interested to see some other members ideas on it.

? Puzzle Answer ?

Here is the answer to last month's Puzzle Spot. Sorry there was no room for a new puzzle this month.



The Millennium Files

By:- Jenny Bundock.

Over the past few months I have been gathering information and putting an article together for each issue of FORMAT PC on the big problem you should all be aware of, you know, the one where many computers and any device with an embedded chip inside is predicted to go haywire in the Year 2000.

Some call it Apocalypse 2000, Millennium Muddle, Information Meltdown, Millennium Bug.....we are calling it '2000 Myopia'. Myopia meaning short-sightedness.

The information collected has come from various sources including you, my readers, and for those who do not receive FORMAT PC I didn't want to deny you the opportunity of reading all the juicy gossip about this problem, and of course seeing my name in print up there, in bold on the right instead of at the bottom of the renewal notices requesting you to part with your cash!

The root of the problem goes as far back the early 70's when original programmers, writing software for big main-frame computers, wanted to save space in both memory and storage (disc or tape). So, instead of storing the year as four digits they used two digits instead. That is, 1976 got stored as 76, and still to this day we use the DDMMYY method of storing dates.

Well, come the year 2000 any program more than a few years old probably will not recognize the year ending in 00, simply because 00 is less than 99, and the computer is likely to think that the year 2000 is 1900, or something else, or worse still - crash!

Within a computer, tests and calculations are performed on dates all the time. For instance, I was born in 1956, if I ask the computer how old I am today, it subtracts 56 from 97 and announces that I'in 41. What will happen in the year 2000 is the computer will subtract 56 from 00 and state that I am *minus* 56 years old!

If you have some records and want to sort them in chronological order e.g. 1965, 1905, 1966, the resulting sequence would be 1905, 1965, 1966. But, if you add in a date record such as 2015, and the computer only knows to look at the last two digits of the date, you will get a list of 05,15, 65, 66.

It all sounds bizarre, but the original programmers who invented this way of storing the date knew that it would be a problem at the turn of the century, but they thought that 1999 was a 'lifetime' away and most of their programs would have a maximum life-span of, at most, around 5 to 7 years. (hence the reason for me calling it '2000 Myopia'). By that time they thought the programs would be re-written, thrown away or replaced by something else.

The database I use here for dealing with INDUG subscriptions is on SAM, and it was written in Basic (originally on the Spectrum), by Bob, some years ago. We fortunately have the source code

(something many computers users do not have for the software they are running). Anyway, recently he did a little jiggery pokery with the program and now when it comes to the year 2000 things will run smoothly (at least that is what he claims!).

Now, let me give you an example of what would have happened before this adjustment to our system. Each year when we send someone a renewal notice (and they promptly return it of course because they would not want to miss an issue), I need to process their reply and add 12 months to their expiry date.

On the database, every members record shows certain details, one of them being their expiry date. This is stored as MMYY, for instance, if a member will end his subscription in June 1999, this is displayed as 0699 on the screen. When he's paid his subs, 12 months are added to them. I feed the computer with all the necessary information and instead of coming back with an expiry date of 0600 it comes back with an expiry date of 0610. Why? I asked Bob!

Well, he told the computer, all those years ago when he first wrote the program, to add 12 months to a date, say June 1988 (0688), so add 12 to MM (06) and if the resulting number is more than 12 (it would have been 18) then add 1 to the YY (88 + 1 = 89) and subtract 12 from the MM (which in this case would put it back to what it was, however, we can add any number of months (not just 12) so it has to be done this way). So the computer would have displayed the expiry date, correctly, as 0689.

So I want to add 12 months to an expiry date of 0699, the computer adds 12 to MM comes up with the number 18, then adds 1 to 99 to make 100 but, because it has only 2 spaces to put 100, it drops the last digit and displays 10, thus ending up with the expiry date of 0610 - *WRONG!!.* Well it may have been alright from the readers point of view, an extra 10 years reading, but Bob needs to make the money in order that he can keep me gainfully employed. So Bob had to make a simple adjustment to the program.

What he did was to make sure the computer understood that 99 rolled over into 100 and only to display the last 2 digits of the year on the record. A trick that works for us, but would not work for everyone.

Different problems for different computers, and is going to cost absolutely billions to fix world-wide. Not only that, but time is running out for companies who haven't started making plans to solve the situation. Even if businesses have started and completed their work, there is still no guarantee that by the year 2000 everything will be up and running smoothly.

What is more worrying is, up until a few months ago even though companies were waking up to this crisis and beginning to perform an impact analysis, only 10% of British businesses were actively working on the subject.

Some large companies who have to deal with pay-roll, invoicing etc have systems which the programmers wrote especially for them. These programs could contain millions of lines of programming code, many of which will affect calculations on dates, or the input or display of dates. Many lines will contain 2 digit year numbers. The job is finding them all, fixing and testing. But what if the company doesn't have the original source code, and cannot get hold of the original programmer who wrote it?

The task is BIG. Here is a rough analogy that I came across while I was

reading bits of information which may help you to comprehend how complex this situation could be.

Your daily paper contains hundreds of lines of text with so many words to a line. So imagine searching through all last weeks daily papers and looking for every instance of where the past tense is used and then changing it to the present tense, and then having to check all the text to make sure it all makes sense.

Not all companies systems were written in the same language, some were a cross between different languages. Imagine doing the same test on the same daily papers only in French, German and Spanish.

No one can really be certain about the expense of the operation because programmers hired to do the fix are going to charge much more for their services in the run up to Y2K and beyond. It is expected that the cost of employing programmers is to double annually as they come into demand in the months that are to follow, and the older the systems, the more expensive auditing and adapting will be.

The global cost has been estimated an $600 billion and the bulk of this estimate consists of opportunity cost. The public sector (central and local government) takes up as much as 40% of this estimated $600 billion as it is more likely to have 'old-fashioned' equipment than companies in the private sector.

Smaller companies may spend less because they should be able to buy packaged software off the shelf from existing suppliers to adapt their systems to make them Year 2000 compliant.

As the months tick by, good reliable programmers are becoming fully booked as experts in 25 year old programming languages are getting rarer, and very expensive, in fact the better they are the more likely they have been snapped up to fix the job already.

Even when the right people are in to do the job, things can go wrong. One story I came across about a particular company who did all its conversion work, then brought in some employees to test it over the weekend when the system was not in use. They 'rolled forward' the clock on the main computer and checked that all date-based calculations and applications worked correctly when the date was set to January 1st, 2000.

Satisfied, the employees then rolled the clock back to 1996 and went home for the rest of the weekend. On Monday they discovered some of their back-up data files for recent work had been wiped out.

The reason was simple: the automatic data back-up system used by the company was designed to conserve storage space by erasing data more than two years old. The back-up system had been `fooled' into thinking that there was lots of data on the system that had not been used for more than three years. It erased the lot.

Another company had a system designed to delete passwords and network identifications if they were not used for 18 months.

Over the next three years 500,000 to 700, 000 additional programmers will be needed to work in the USA alone to handle the date conversions, and experts say October ' 97 is the last point at which repairs can start with a reasonable probability of finishing before 2000.

The only permanent solution to this problem is wherever there is a program that gives the year as 2 digits, then all those 2 digit years will have to be changed to 4 digits. It may sound simple enough but when you go into it in depth,

it is very laborious and time consuming.

Another option would be to represent each century with a numeric code, such as 0 for 19 and 1 for 20. Alternatively there is the 'quick and dirty' approach of putting a 'fudge' into programs to calculate the first two digits of the year based on the last two digits. If the year digits fall between, say 50 and 99, the computer would assume a 19 goes before them. Numbers between 00 and 49 would get a 20 in front. That is relatively easy, and requires fewer changes - the internal (stored) dates can remain the same and only the displayed/printed date gets expanded by the program.

There are approximately 80,000,000 PC' s in use all over the world. It has been estimated that around 80% of these may be unreliable in the year 2000. Many companies are using this excuse to upgrade their systems and have included this in their budget as part of new developments, along with businesses that have old fashioned systems.

A large percentage of these PC's are used in the home, so it may not be a problem for users who play games on their machines and only a minor one for those who are serious users.

Apparently, if you have an Apple Mac then you can sit back and relax because they won't suffer from date problem. The Macintosh operating system used a 32-bit value to store seconds, starting at 12:00: 00a.m. January 1st, 1904 and ending with 6:28:15a.m. on February 6th 2040. (**Editors note:** 2^32 seconds is a long time - work it out for yourselves.)

The millennium-related problems has meant that many companies are not yet issuing credit cards with an expiry date beyond 2000. Many credit cards normally have a maximum validity of three years. However, several cards that do have post-2000 dates have been rejected by retailers' computers. Sometimes the problem can be solved by manually entering a 'false' pre-2000 date.

There's this one tale of a holiday maker and his wife who went to pay for petrol in a remote Portuguese station last summer. The computer terminal refused to accept any of their cards, and they didn't have sufficient Escudos to pay. The attendant eventually accepted payment - grudgingly and at a extortionate exchange rate - in sterling.

Another story is of a tourist who went to pay for a meal in the US with an American Express card. With a post-2000 expiry date on it the card was rejected by the computer terminal. He didn't have any other cards or cash on him. The restaurant refused to let him leave until the situation was resolved. After more than an hour on the telephone to the AmEx offices, authorisation was finally obtained. When he returned home he complained to the card company, who paid him a generous £750 compensation.

In America several prisoners were released by mistake. The inmates' sentences extended well into the next century, but the prison's computer calculations showed they were long overdue for release..... whoops!

Marks & Spencers were first alerted to the problem when a tin of corned beef had a sell by date of 2000, the booking system rejected it because it couldn't recognise the year. It thought the tin was 95 years past its sell by date.

Just a few stories of how '2000 Myopia' is rearing its ugly head! If you have anymore or if you see any articles, jokes or clippings on the subject, please do send them to me so I can keep you updated on this computer disaster!

ENTERPRISE

The Last of A Generation.

By:- David Thomas.

Last time I told you about the aborted Loki project from Sinclair Research, a sad loss to the Z80 world. This time I would like to tell you about the Enterprise, another Z80 based machine that broke new ground and nearly made it.

There was a time when every new computer was different. Completely different. Each new computer had to show real progress over its predecessor. Today we get excited if we see what is simply an identical computer to yesterday's, with just a ten percent faster clock-speed or a twice as fast CD ROM drive.

Imagine how it would be if someone announced a computer which wasn't just a progression but which was miles ahead of anything available today. Such was the excitement when the Elan Enterprise was first talked about. The CPU was a Z80A, nothing out of the ordinary, but otherwise this was a very special machine. There were custom sound and graphics chips - one of which had been designed by a chap who had become famous through a Personal Computer World competition to build an intelligent robot mouse. In those days a micromouse wasn't a pointing device it was a little robot that had the task of solving a maze in the shortest possible time. The competitions were some of the highlights of many computer shows in the early to mid 1980s.

The machine even looked special: one commentator called it the "melted" computer because the edges were rounded, and a joystick was built into the top.

The name caused a problem. The Elan courier company objected, although why has never been revealed, and so the name had to be changed. For a week it was rumoured it would be called the Flan - it meant doctoring the E in the name - but finally the machine became the Enterprise, named after the company which had designed it.

Despite having been shown at some computer shows - the important one at the time was the PCW show in London - the Enterprise was late, like so many computers. Delays in producing the custom chips meant that by the time the machine was shipped it wasn't streets or even minor lanes ahead of the opposition and the disappointing performance coupled with a high price (over £300) meant that sales were poor and that meant software support was also poor.

The screen resolutions available were high for the day; up to 672 x 512 with up to 256 colours, although as this was in interlaced mode it flickered like crazy unless you had a monitor (which of course in those days was a very expensive investment).

The Enterprise was ground-breaking in that it was the first home computer to have stereo sound. As no monitors had speakers this meant wearing headphones, and a networking port was

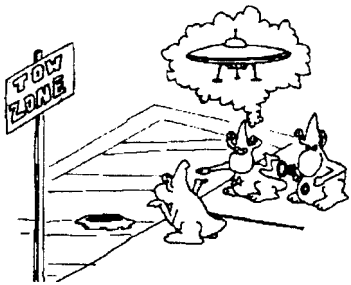
needed. But this wasn't working on any of the review machines and it's very likely it never actually met the specification. Worst of all the machine was very slow, which after a year of waiting was a huge disappointment. BASIC as a programming language was of course standard and the Enterprise had an advanced dialect complete with indenting and long variable names. There were some interesting keywords like the BANG (V), BOOM(V). POP(V) and PING(V) sound-effect commands where V specified the volume and PAINT (X,Y) filled an area. Users keen on sound could define the envelope. A row of eight function keys was provided with a simple legend, but they were easy to re-program and, thanks to the bright blue pigment, easy to see.

One of the default function key settings was CLACK which turned the keyboard sound on.

The operating system, EROS, was closely associated with the Basic. This pre-dated proper operating systems on mass-market micros and the thought of multitasking on anything you would have at home was completely alien. At the time, no-one seemed to lament the death of the Elan Enterprise but in hindsight it was a huge shame as this was a computer in the Sinclair tradition which tried to break new ground but which lacked the backing.

A little later, Amstrad stole a march with a much less ambitious computer, the CPC 464, but with a better price and an ability to hit the deadlines. The Enterprise had virtually no software and, despite good reviews in most magazines, failed to sell. Even people with long outstanding orders cancelled them. All this makes the Enterprise the ideal target for a modern collector of retro computers. Unloved back then they are much sought after now. I once let one go and still regret it.

In the meantime, Commodore built on the success of the 64, which had some excellent games and Acorn on the BBC Micro so there was no scope for the Enterprise. The PC arrived and killed off the innovative computers, thereby making the Elan Enterprise the Last Generation, well until SAM came along of course - but that is another story....



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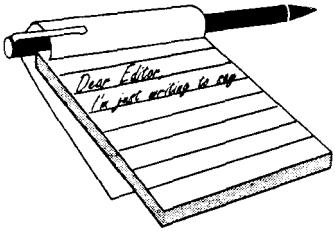

YOUR LETTERS

Dear Editor,

I was informed of your comments in the May 97 edition of *FORMAT* towards my service, in the letters pages. As you are so quick to pass judgement, we'll see if you have the nerve to print this letter in full.

So you think the dispute is stupid? That gives the impression you could not care less about other people's problems. Assuming you do print this letter - I'll make it crystal clear to your readers as to what the dispute is really about. IT IS ABOUT RIGHT OVER WRONG where one individual stands up to scurrilous behaviour - to defend their reputation as circumstances dictate.

Like many in this country I do not have the resources to start legal proceedings where libel is concerned. Even before Prism came under the 'scrutiny' of Alchemist Research in October 1993, other services where also suffering long before us, and we have letters to prove it.

The very latest example is Dave Fountain of FPD being disgracefully attacked in Alchnews 22/23 (Dec 96/Feb 97) - which led him to reveal to most services, that he possessed letters where Davis admitted to lies, forgeries and set-ups against Prism (& that also includes the assistance of Lloyd Garland aka Alchemist Software). With my factsheets in 1996 and with successful assistance via the Data Protection Registrar, I feel FULLY vindicated with everything I've done so far.

After being accused of handling illegal software, pornography, being under police investigation, piracy, fraud etc - would you not do the same? If I'd been guilty of that lot, my service would have perished a long time ago!! I would also state that if other services & programmers had stepped in to put Mr Davis in his place along time ago - then the Spectrum scene might have had cleaner air by now. Who is more guilty? The perpetrator or those *who just watch and do nothing?*

Unfortunately, Davis is still hovering like a vulture ready to pounce, and only because too many in the Spectrum scene are either scared, don't wish to know, or are already at his feet or in his pocket. The Spectrum scene is forever tainted - but don't blame the innocent like myself who prefer to stand up for the sake of right over wrong not matter what it takes.

As for not being at the shows, your comment was not very diplomatic - and that is how an editor should be until all facts are known. FACT: I am unemployed and cannot afford train fare - which would cost nearly £20 before other expenses. As I do not own a Coupe and my service is for the Spectrum, I have no obligation to attend your shows, I was certainly put off the idea when 3 lads from Scotland (who head THE UNITED MINDS demo team), came down in 1995 via coach to find nothing for the Spectrum. Each felt they had wasted £45 in expenses. No one can claim to be the centre of Z80 computing and it is up to each individual to decide what shows to attend or who to deal with.

I would have sent this letter on a disc,

but you still have one of mine, despite sending return postage. Could I have it back please - preferably before the end of the year.

Yours sincerely, Martyn Sherwood, Editor and Proprietor PD POWER/CPC USER/Wallis Publishing/United Amstrad User Group.

Ok readers, the above letter has been printed unedited, and we have been very careful to ensure that nothing got left out.

Now for those of you that don't know, there has been a long running (several years as I recall) battle between Martyn Sherwood and Andy Davis (aka Alchamist Research). In the early days I must admit I had some sympathy for Martyn, possibly because he was the one that often phoned for a chat (never spoke to Andy but had lots of letters).

Anyway. To cut long stories short. Various things happened that led us to think that the dispute was not as one sided as Prism would have had us believe. I took the desision to say to both parties " If you want advertising, pay for it. But I'm not going to give free publicity to people who are bringing the Spectrum scene into disrepute".

Since then we, and lots of others, have been bombarded with letters and ' factsheets' about the continuing battle.

Sorry to bore you with all this, but the final part of the first paragraph was like a red rag to a bull - I had to print it.

Just to finish, I would like to comment directly on just a couple of items from the above letter. First, his comment regarding the Gloucester shows. True SAM tends to have more support than the Spectrum, but there has never been a show where the Spectrum was not supported. If Prism (and Alchemist Research) were serious in their support of the Spectrum then why have they never come to Gloucester? Next, given the price of discs, we never bother to return discs submitted with letters or articles - it just isn't worth the effort.

And finally, a personal observation. If Mr Sherwood spent more time actually doing something constructive, and less time inventing new titles for his business ventures, and wasted less time designing very o.t.t. letterheads and so called fact-sheets, then just possibly people would take him more seriously. *Ed.*

Dear Editor,

I am writing to thank you for my new printer lead for use with my printer and PLUS D. The good news is that my printer now works. Also, I found upon very close inspection my old lead was damaged, i.e. The ribbon cable was ripped across two wires, it looked more like a cut, how it happened I cannot say. I would like to thank you, Jenny and Mr John Wase for all the good help you have given me.

Thanking you all again.

Yours sincerely, S.C.Round.

And I would like to thank you for your continued support, glad to here everything is now working for you. ***Ed.***

Dear Editor,

Thought you might like these news items (from Interface in The Times, Wednesday 11th June) for either mag. Just tell all those youngsters to get learning those computer languages and electronics. Sorry I haven't got time to summarise the articles, I'm just doing the last couple of weeks of my degree (in horticulture unfortunately). I'm hoping to get back to using my SAM Coupe when I get home, but the problem is going to be finding room for both that, and my IBM-compatible 386 which I bought second hand last year. I'm not sure what SAM will make of my new Epson Color 600 though. I doubt I'll use SAM much now for professional work, just the odd bit of messing around. Then

again, you never know, if most things were DRiVER compatible (so you could easily swap information between programs) and I could spare a couple of hundred quid to add a Meg (if you can still get them) and a hard drive (and a clock of course), and buy a few more programs, I might just use it for everything. Anything's going to be better than the Apple Macs they've got at College though, well, I suppose they might be alright if they had decent programs on them.

Keep up the good work.

Yours sincerely, Paul Bloomer.

The clipping you sent form the basis of one of the news items this month, thanks very much.

I'm sure SAM will be able to talk to your new Epson, you may have some difficulty with finding all the correct control codes but you should have fun trying. ***Ed.***

Dear Editor,

I would like to re-subscribe to ***FORMAT*** once again. I was a member up to August 1995, but due to circumstances beyond my control I had to let my subscription lapse.

I now find myself in a position where I need some help in making more use of my SAM, so I hope to get what I need from your magazine. My main interest at the moment is to get my Epson Stylus Colour 200 inkjet printer to work properly with the SAM. Also I am interested in purchasing a hard drive interface and a real time clock.

I would be obliged, therefore, if you could send me any information about the above and also a subscription form for ***FORMAT.***

Yours sincerely, A.L.Bennett.

Welcome back Mr Bennett, nice to hear from you again.

Using colour ink jets is not too much of a problem until you come to screen dumps. All you need to do is find out what the control codes are and change your software accordingly.

For screen-dumps, give Steve's Software a ring. Steve Nutting knows more about ink-jets than anyone else I can think of and he is always very helpful. ***Ed.***

Dear Editor,

I felt it was about time I gave all you out there some help with getting the Kempston/Datel mouse working with the PLUS D and the +3.

On the +3 the mouse works quite nicely directly on the edge connector or behind the +3 multiface providing you have a through port. Some mice had through ports, but mine doesn't, anyway I think it' s best to have the multiface 3 on first so ideally this should have the through port.

On the PLUS D you have the added problem of having to split the edge connector, I used a gold edge connector from RS components (Tel: 01536 204555) and over 50, 6" wires soldered on to the back of the original edge connector, the original edge connector had a gold edge connector soldered on to it, then a Multiface 128 and the PLUS D (I never have crashes now due to poor contact).

Now, I think I've mentioned all this before but I just felt it needed a recap. Now, I come to the important bit, these two set-ups are far from perfect, as I soon found out when programs failed to load on the +3 or crashed on the +2.

The fact is some programs don't like the Kempston interface, just take my word for it, I'm told it's an interrupts problem, whatever they happen to be (showing my ignorance). Anyway, it's a trifle inconvenient (and hazardous) plugging and unplugging in mouse interfaces.

George Siougas from Greece recently had an article published in ***FORMAT*** on this subject but I have to disagree with

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him. He mentioned putting a switch in a certain edge connector line, now I found that the A5 line worked for both the +3 and +2. The A5 line is on the underside of the edge connector but I'll leave you to find it from your manual. If you want to prove that the A5 line is the correct line, try this test. Cover the A5 line with a slither of plastic tape, replace mouse interface, hey presto neither mouse (or Kempston joystick if present) should work so now insert a switch.

Ok, I'm not going to give you a blow by blow account on how to do it just use your ingenuity. The MGT two face had a switch but it's a scarce piece of hardware and I don't know which line it switched. This A5 line might switch out the interfaces, I've not tried any others.

For the +3 with a multiface 3 with through port, try cutting the A5 through port line and leading two wires to the top of the box and putting a switch (slider or toggle) next to the red button to keep it company.

On the *+2 you* might have to consider putting the switch inside the mouse casing.

Anyway live in peace with your mouse.

Yours sincerely, Bernadette Dowsland.

You seemed to have covered every angle there Bernadette, I'm sure the information will help several readers. Many thanks for your efforts. ***Ed.***

Dear Editor,

The centre 16 pages *of* the current *FORMAT* Vol.10 №9 made interesting reading indeed.

Ron Mark's double height characters (page 9) works very well.

Steve Martin's name that disc (page 11) was also *of* great interest. I guessed the same idea could be applied to the PLUS D but, as the memory differs from the DISCiPLE, what should be the corresponding SAVE instruction for the former interface? Does the offset of 664 apply and in which direction?

A disc was formatted and SAVE d2" SYSTEM #00"CODE 8,6144-664 was executed. cat2 gave: 1 SYSTEM#00 11 CDE 8,5400.

Experimentation showed the `program' name could be anything up to 10 characters, eg. Disc No 999 and the value after CODE 8, could be O.

A great little idea which just sacrifices the first program space.

I noted G.S. Hathorn's letter, Page 33, and your comments with great interest. According to R.West's programming the PET/CBM' page 151, `Hardware Protection includes the `dongle', plugged into the back of the PET, and periodically checked by the software .....', and I assume that if this was touched or otherwise interfered with it crashed the machine.

My ZX81, with replacement typewriter style keyboard plus 16K RAMPACK, caused endless trouble initially because the latter, I found, was acting as a support foot for the machine which clearly caused the RAMPACK to rock (despite a clamping clip) every time a key was pressed. This was cured by fitting feet to raise the RAMPACK clear of the work surface.

I operate my ZX Spectrum+ 128K with the feet raised so the PLUS D, as supplied, hung cantilever fashion from the PCB, a crash-prone situation cured by a bracket adjustable to support the PLUS D parallel to the plane *of* the PCB. The Spectrum still crashed badly on occasion and often was not recoverable by using the reset button! Resetting PLUS D was an uncertain cure. The lead from the PSU was found to be indifferently soldered to the jack plug terminals but correcting this did not provide a certain cure. I then decided there was oxide on the jack plug and its receptacle surfaces. My procedure to Power-up the Spectrum now is to a) withdraw the jack plug b) power up the

PSU. c) plug in the jack plug. This seems to be a 98% cure for the problem, the other 2% being an occasional disturbance of the PLUS D.

In connection with my letter on page 35, Vol.10 N°9, and your very interesting comments, I found it continued to exercise my mind. So, I've done some work on my C64 TIMEINSTRUCTS program and for a start, adopted the Spectrum recommendation of reading the time twice and taking the higher value. The program gives very consistent readings now. However, reading LET still takes slightly more time than leaving LET out. I thought to use the abbreviation for LET (L shift E) and found this gave exactly the same timing as using LET.

Best wishes.

Yours sincerely, Roy Burford.

I think another look at the 'Name That Disc' subject is called for Roy, will see what I can do soon. *Ed.*

Dear Editor,

Reading about this 'Millenium Bug' in the so called 'popular press' the other day led me to experiment with inputting the 2000 date into SAM when I loaded *The Secretary*.

According to SAM I had then travelled back in time to the year before Queen Victoria passed on to meet her maker. In fact, SAM considered that I had written this letter on the 4th April 1900. Could be embarrassing for the Post Office!

I realise of course that *The Secretary* can probably be re-programmed, but, seriously though, what about other software titles (most now defunct)?

I have also set the date to 2nd January, 2000 using the calendar utility in DRiVER. I then saved a modified icon. When DRiVER re-read the directory after having been set to display 'small icons', it disappointedly displayed the date as 2nd January, 1900. I found this disappointing because DRiVER's calendar utility allows one to set dates well beyond the year 2000. I have until now, assumed that the 'small icons' mode was designed to be 'intelligent' enough to be compatible with this utility.

Can anyone see a way round this? Anyone purchasing a SAM Clock at this point in time could well see it becoming obsolete a thousand days or so from now! This would be a great shame.

Perhaps, like the Uni-DOS chip, SAM Clock comes complete with a disc full of software 'patches' for amending the most popular programmes?

Anyway. I really hope these comments turn out to be constructive, I really fancy a SAM Clock. If I can raise the money I might try to obtain one at the next show. But, I must admit I am in two minds right now.

Yours sincerely, Dean Shepherd.

SAM's clock is 2000 compliant, but MasterDOS isn't. Well it is, but in order to avoid stamping files with nonsence dates it looks for zeros in the year - and there is a comment in the source code from Andy Wright about it. All it will need is a couple of pokes to correct for people using the clock. Have not got the details to hand at the moment but will publish them soon. ***Ed.***

Dear Editor,

It's a very wet May day so I am reading of few issues of *FORMAT*. In the April issue you have asked readers for a few ideas for other types of puzzles. I have a few puzzles in old books collected over the years and as I am still learning Basic I think it's a good way to give something back to the mag. I enclose 10 questions and answers for you to look at. I can provide lots more. I know way back in 1990-91 you had a *Thought Spot* run by Jeremy Cook (I wonder where he is now).

What about some 'where are they now' items?

If you think that this is the type of puzzles ***FORMAT*** readers enjoy please

let me know and I will send enough for the next 12 issues. It could be just for fun or a winner pulled from a hat to win a free copy of the mag. Just drop me a line and let me know.

I am glad you are updating the Resource Directory, I use Ribbons & Things, for ALL my printer needs. Please include it.

I have heard that issue 54 is the last issue of SAM Supplement. It's sad when another SAM disc mag goes.

Jenny, I sent you a cheque for the scart cable but my cheque has never been cashed. Did you ever receive it?

I am coming to the next Gloucester Show. I have already made a few enquiries about getting there. I do hope you are going to have one.

All the best.

Yours sincerely, John Adams.

I had not heard that SAM Supplement was closing, I knew they had cut back but they came to the Gloucester show in April. And yes, the next show is on October 25th. ***Ed.***

Yes John, you should have got your scart lead with you May issue along with the other items you ordered - things must have crossed in the Post. Jenny.

Dear Editor,

Further to my recent conversation with Jenny.

In the May issue of ***FORMAT,*** John Avis wrote, "...is there a Technical Manual.... for DRiVER" and Bob, rightly, referred him to FRED Publishing.

As I mentioned to Jenny, I found a text file which appears to contain all the articles in FRED written by the author of DRiVER regarding technical aspects of programming of DRiVER.

I did promise to send Jenny the printed version of this file, and that was my intention right up to the point where I realised that printing out the file exceeds 40 pages (and that's after it's properly formatted in a text handling program). Once I got over that I realised that the postage implications of a large wodge of paper made sending the file on disc a much more attractive proposition.

The enclosed SAM formatted disc contains the original file DRiVER.TXT, which can, appropriately enough, be loaded into DRiVER. The file will need reformatting in Notepad, this is easy but time consuming (so I'm afraid I haven't done it for John!).

I've also included another version of the file, which is identical except that the filename T_DRiVER means it can be loaded into *The Secretary* instead - this file will similarly need reformatting.

Because the file originated in MS-DOS it contains some DOS characters which look like small boxes if the file is imported into DRiVER and 64 column mode isn't selected and look ever weirder in *The Secretary* (but *they* can easily be deleted).

I hope this helps John and I wish him every success in what sounds like a monumental task - trying to convert non DRiVER applications to full DRiVER ones.

Incidentally (and on a related topic) I've been disappointed that further DRIVER applications haven't come along, I was hoping for DRiVER versions of all the ` good' serious SAM Software - *The Secretary,* Campion, SC-Filer/File Manager etc., I hope the DRiVER compatible version of HDOS *comes* along soon too!

Anyway, kind regards to you both.

Yours sincerely, Matthew Gallagher.

Thanks Matthew, we are sending a copy of the disc you sent to John Avis in the hope that it will answer his questions. ***Ed.***

Dear Editor,

In Vol.10 №8 April 1997 issue of ***FORMAT,*** the Help Page by Ray Bray, your editors note on page 19. I am afraid

to have to contradict you, W.N. Richardson (EEC) is still trading, I spoke to Bill himself only this weekend at the SAM Show, Stafford, (Spring All Micro Show), and he still has quite a few of useful items for the Spectrum and in fact one of the few suppliers of Spectrum items, (especially Microdrive items) still left. In view of this will you please make this known in the next issue of ***FORMAT,*** possibly in 'News on 4', I had hoped that you would have included my note on SinTech in 'News on 4' rather than in ' Your Letters', I might have been able to claim my extra subscriptions then!

Yours sincerely, Deryck R.J.Morris.

Now there does seem to be some confusion over Richardson and Co. Some time ago we were told that he had ceased trading. He told us he had closed down about 18 months ago but that he was coming to the April'96 Gloucester show to sell off some 'ends of lines' however, he didn't show on the day.

What the truth is now, we really don't know, so we are reluctant to point people in their direction until things are clarified. As soon as we know more we will let everyone know. ***Ed.***

Letters may be shortened or edited to fit on these pages although we try to edit as little as possible.

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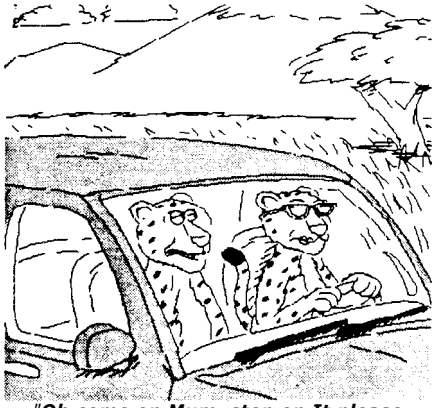

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