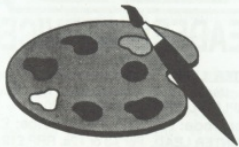


SAMPaint



The ADVANCED Art Package For The SAM Coupé and elite

"excellent... very impressive... brilliant... the best... superb... astonished... quality... real professionalism..." Carol Brooksbank, *FORMAT* February 1994.

We could spend page upon page quoting from Carol's review or listing the features of SAMPaint.

But the fact is, SAMPaint sells itself. It has every SAM owner talking about it, it even has a lot of 16-bit owners jealous! And who can blame them when we've implemented almost all the features from their art packages and more...! If you still need convincing, get in touch and we'll send you a list of the main features.

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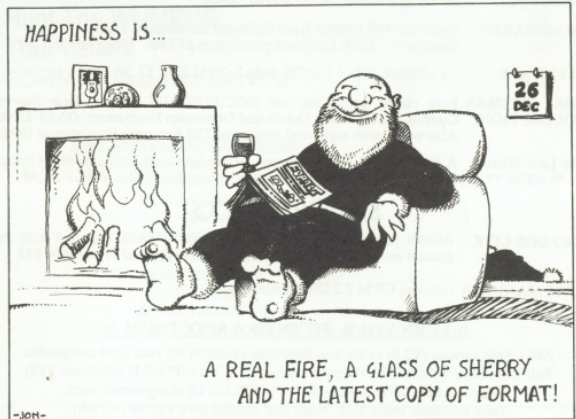
For a full list of SAM Software available from FRED Publishing send an SAE to the address below.

Vol.8 N°4.

December 1994.

FORMAT

THE HOME OF Z80 COMPUTING



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ISSN 0963-8598.

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NEWS ON 4

REVELATION BATTLE OVER SCADS

Earlier this year Exeter based software house Revelation signed up SCADS, the games design package formally marketed by Glenco Software. The program was to have been re-released last spring, in time for the Gloucester show.

However, Revelation have now revealed that, despite paying Glenco for the rights to the program, Glenco's boss Glen Cook has persistently failed to honour the contract and hand over the stocks of manuals he holds together with the master discs required for duplication.

Revelation's M.D. Frank Broughton is known to be very angry about the situation and does not rule out legal action in the near future.

CONSOLE MAGS TAKE A TUMBLE

The days of the Console mags could be drawing to an end as their circulation figures drop by as much as 35% this year. *Sega Mean Machine*, one of the Emap Publishing stable, tops the list of falling sales with the massive 35% slump. In the meantime the other big publisher of games mags, Future Publishing, comes off little better with a 29% fall in the sales of *Sega Power*.

AMSTRAD DUMPS RETAILERS

Amstrad has decided to pull out of high street retailing in order to concentrate on the mail-order market.

As one of the first big manufacturers of cheap IBM clones, Amstrad at one time dominated the high-street market place, in particularly through the likes of Dixons and Comets. However, as others have come into the arena, Amstrad has

seen a big reduction in its market share and so Amstrad now plan a massive advertising campaign over the next few months aimed directly at the home and small office user.

NEW COLOUR INKJET

Citizen have launched a new colour inkjet printer at a remarkable low price. The ProJet IIC is priced at £325 but should be available through the box-shifters at under £300.

It comes complete with a both a colour and a black print head which work at 300dpi (dots per inch) and the printer is described as being HP compatible.

To find out more contact Citizen on 0753 584111.

NEW CARTOON STARS

Them loveable (but misguided) rodents of computer games fame are about to become even bigger stars. Yes, *Lemmings* are coming to the small screen as cartoon characters. Psygnosis, the Sony owned software company, has signed a deal with TV industry giant CBS to bring *Lemmings* to life in cartoon form next year.

Already stars on almost every computer format (including the only licensed version Psygnosis have allowed - the SAM version from Fred Publishing) the TV exposure will make them even bigger. Their launch into TV stardom will be coupled with other product licences and more new *Lemmings* games.

Credits:

URGENT we need your news. Anything you think other people should know about. Each item printed earns the contributor 3 months extra subscription (please claim when next renewing).

The Editor Speaks

Christmas is getting close, although it does not seem like it in the office at the moment. It is warm, the heating is off, I've got my shirt sleeves rolled up, and it is nearly the end of November. Strange thing is I've just been reading an article on the fact that we are moving into another ice age...

Mark Hall has asked me to pass on his thanks and appreciations for all the nice get-well cards and other messages he has received from readers. Mark should be having his operation about the time this issue of *FORMAT* gets to you, unless they delay things yet again. We all hope the operation is a success and that he is back to work as soon as possible.

In the meantime, West Coast Computers are now running more or less normally having made alternative arrangements until Blue Alpha are back in business next year. There are a lot of people pulling real hard to make sure things get done.

For the moment we have agreed to act as a clearing house for SAM repairs, so if your SAM goes sick give us a ring first and we will tell you what to do.

A strange envelope arrived here last week. One of the envelopes we use to send out *FORMAT*, complete with the original Gloucester postmark, but with the label torn off and our address written on in pen. No stamp, but postmarked London, and containing one carefully torn up copy of last month's *FORMAT*. Oo err, is someone trying to tell me something? Perhaps we will never know. Still, it does make you wonder about the mentality of some people.

Right, now down to better things. This is, of course, the Christmas issue. So it is

a little different to normal issues, we let our hair down a bit. There was to have been a pull-out *Games FORMAT* supplement in this issue, but I'm sorry to say that the sub-editor we chose to put the material together has let us down. Never mind, it will see the light of day someday soon. All I can say is sorry to the many of you who knew it was coming and were waiting eagerly for it.

I hope you will find the mix good enough to keep you going over the festive season. And as a first offering, here is a little Ode to SAM. The original, which I have in the office, is printed on a small wooden plaque with a lace boarder. How apt the words are.

SAM

MEANING: CLEVER.

You come out ahead
No matter the endeavour.
You're blessed with a mind
That is really quite clever.
You're sly as a fox,
Always on the alert.
At problem solving,
You are truly expert.
Throughout your life,
You will certainly find
All the answers you need
There, in your clever mind.

Anyway, must go now, got to get started on the January issue or I will not get it to the printers before Christmas. So, from Jenny and I, a happy Christmas to all our readers.

Until next year.

Bob Brenchley, Editor.

SD Software



Quality Serious Software For Spectrum & SAM

THE FRACTAL COLLECTION

A fast fractal generator for the ZX Spectrum. Now you can explore the fascinating world of fractals with this machine code program. Up to 200 shades on screen gives clear, crisp fractal pictures which can then be zoomed and expanded. Not just the Mandelbrot set but 18 different types can be made. Generates fractal music; you can hear the computer generate the fractal. Ready to use on disc for DISCIPLE/Plus D complete with ready-converted file for use with our SPECMAKER emulator on SAM.

SPECFILE: The Spectrum data filing program that never gets out of date. Specfile+ holds a massive 28K of data and, by using compression makes it seem like much more. Free-format style means no complicated file design before you get started. Very fast CASE selective and complex searches. Designed to be extended - so it grows as you do. Works with PLUS D, DISCIPLE or under SpecMaker on SAM. This program is a must for anyone with data to store. *Special +3 version also available on 3" disc - add £2 to price shown below.*

UNIDOS version 2. The advanced DOS from Steve Warr for the PLUS D and DISCIPLE. Same DOS system file for BOTH interfaces. Random Access Files; Sub Directories; Hundreds of files on one disc; Hidden files; Protected files; Copy files of ANY length; incredibly versatile Screen Dump routines; Error Trapping and MANY more features. Compatible with all Spectrums (+2a/+3 in 48K mode). Over 20 programs now included on the disc. *As used in the new DXI.*

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SPECMAKER The simplest Spectrum emulator on the market for SAM. 1000s of 48K programs work without the need for any conversion. Most other programs need only minor changes. All the extra SAM keys work in Spectrum mode. Uses SAM's printer port and up to 360K of SAM's memory as a RAMDISC. PLUS D, DISCIPLE and Opus discs* can be loaded into SPECMAKER and saved to SAM disc. Converts files between Messenger and SPECMAKER format to save valuable disc space. Comes with pre-converted Spectrum ROM image (no need for Spectrum). Supplied on 3 1/2" disc.

*Requires MasterDos and MasterBasic to use Opus single density discs

PC-SUITE From the same author as SPECMAKER. Now you can transfer your IBM data files by reading and writing IBM discs (720K format) on your SAM Coupé. PC-SUITE will even let you format IBM discs on your SAM. Write and edit SAM Basic programs on your PC. Use PC-SUITE to copy SAM data files to PC so you can print them on that high quality laser printer at work... Supplied on 3 1/2" disc. *nb. This is not a PC emulator.*

As used by Format Publications to transfer articles and programs for this mag.

PRICES:	Non Members	INDUG Members
The Fractal Collection	£5.95	£4.95
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UNIDOS	£25.95	£19.95
Createfile Manual	£6.50	£5.50
SpecMaker	£12.95	£9.95
PC Suite	£25.95	£19.95
File Converter*	£5.30	£4.00
Hacker's Workbench*	£9.90	£8.50

*GDOS programs still available

Please add £0.50 postage (£1.20 outside UK)

Spectrum Owners

Don't forget to say if ordering for PLUS D or DISCIPLE and state disc size - 3 1/2" or 5 1/4" (80 track only).

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SHORT SPOT

YOUR HINTS, TIPS AND PROGRAMMING IDEAS

Edited By:- John Wase.

Hi, there. It's short Spot time again, and I'm in trouble. My wife has a General Inspection in School this week; for anyone who doesn't know, that means CHAOS! No; I'm not going to start with chaos theory. I am actually going to go for ANTICHAOS; and something a little more seasonable. So just type this little offering from Roy Burford of Norton, Stourbridge, into your Spectrum, (48 or 128) and prepare for the plum pudding.

```

1 REM Koch Snowflake. Sophist
  icated program.
2 REM Data derived for ZX Spe
  ctrum+ 128K by B.C.R.Burfor
  d 200193. Principle from Te
  ssa Lecomber(Writer). Antic
  haos & the science of compl
  exity. Channel 4 Television
  . 1992. p12.
5 BORDER 0: PAPER 0: PEN 7: C
  LS
10 DEF FN v(l,v,a)=1*COS (v*a)
  : DEF FN w(l,w,a)=1*SIN (w*
  a)
20 LET l=3*.5*75/27: LET a=PI/
  3
25 PRINT #0; AT 0,0;"
  Koch Snowflake"
30 READ X,Y
40 PLOT X,Y
50 READ V,W
60 IF V>255 THEN GOTO 90
70 DRAW FN v(l,v,a),FN w(l,w,a)
  )
80 GOTO 50
90 PRINT #0; AT 1,0;" Pres
  s any key to exit:": PAUSE
  0
100 BORDER 7: PAPER 7: PEN 0: S
  TOP
1000 DATA 127,22,2,2,3,3,1,1,2,2
  ,3,3,2,4,2,2,3,3,1,1,2,2,0,
  0,1,1,2,2,3,3,1,1,2,2,3,3,2
  ,4,2,2,3,3,2,4,1,4,3,3,2,4,
  2,2,3,3,2,4,1,4,3,3,2,4,
  2,2,3,3,2,4,1,4,3,3,2,4,
  1,4,0,0,1,1,1,4,0,0,2,4,1,4,
  3,3,2,4,1,4,0,0,2,4,1,4,
  4,3,3,2,4,2,2,3,3,1,1,2,2,3,
  3,2,4,2,2,3,3,2,4,1,4,3,3,
  2,4,1,4,0,0,2,4,1,4,3,3,2,4,
  2,2,3,3,2,4,1,4,3,3,2,4
1070 DATA 300,300
    
```

```

2,2,3,3,1,1,2,2,3,3,2,4
1010 DATA 2,2,3,3,1,1,2,2,0,0,1,
  1,2,2,3,3,1,1,2,2,0,0,1,1,
  ,4,0,0,1,1,2,2,0,0,1,1,2,2,
  3,3,1,1,2,2,3,3,2,4,2,2,3,3,
  ,1,1,2,2,0,0,1,1,2,2,3,3,
1020 DATA 1,1,2,2,0,0,1,1,4,0,
  0,1,1,2,2,0,0,1,1,4,0,0,2,
  ,4,1,4,0,0,1,1,1,4,0,0,1,1,
  2,2,0,0,1,1,2,2,3,3,1,1,2,2,
  ,0,0,1,1,4,0,0,1,1,2,2
1030 DATA 0,0,1,1
1040 DATA 1,4,0,0,2,4,1,4,0,0,1,
  1,4,0,0,2,4,1,4,3,3,2,4,1,
  ,4,0,0,2,4,1,4,0,0,1,1,4,0,
  0,1,1,2,2,0,0,1,1,1,4,0,0,
  ,2,4,1,4,0,0,1,1,1,4,0,0,
1050 DATA 2,4,1,4,3,3,2,4,1,4,0,
  0,2,4,1,4,3,3,2,4,1,4,0,0,2,4,
  ,4,1,4,3,3,2,4,1,4,0,0,2,4,
  ,1,4,0,0,1,1,1,4,0,0,2,4,1,4,
  ,3,3,2,4,1,4,0,0,2,4,1,4,
1060 DATA 3,3,2,4,2,2,3,3,2,4,1,
  4,3,3,2,4,2,2,3,3,1,1,2,2,3,
  3,2,4,2,2,3,3,2,4,1,4,3,3,
  2,4,1,4,0,0,2,4,1,4,3,3,2,4,
  2,2,3,3,2,4,1,4,3,3,2,4
1070 DATA 300,300
    
```

Well; like it? No? Misery! It's an interesting plot. Never mind; I've another program also on the same disc from Roy, and it's also a plotting program, called 'Rotation'. Roy has converted this from the BBC, and mentions one or two points. For instance, an alternative expression line (110) and plot line (175) are given, but REM-blocked. There's also a y-coordinate PLOT anomaly with the Spectrum which Roy has noticed: if y goes negative, the machine makes an absolute plot (i.e. with y positive) which can distort images if not detected. Roy says rotation's a very slow plot, but worth waiting for. Just the

job with port and cheese, after the pudding...

```
1 REM David Johnson-Davies. P
ractical Programs for the B
C Computer and Acorn Atom.
Sigma Technical Press. 198
2. p25. Rotation.
2 REM Revised and adjusted to
ZX Spectrum+ 128K by B.C.R
Burford 310193.
10 BORDER 0: PAPER 0: PEN 7: C
LS
60 PRINT #0; AT 0,0;" Rotati
on. Very slow plot."
70 LET a=127: LET b=a*a: LET c
=95
80 FOR x=0 TO a: LET s=x*x: LE
T p=SQR (b-s)
90 FOR i=p TO p STEP 3
100 LET r=SQR (s+i*i)/a: LET q=
(r-1)*SIN (24*r): LET y=i/3
+q*c
110 REM LET r= SQR (s+i*i)/a: L
ET q= COS (r*5)* EXP (-r):
LET y=i/3-q*c-5
130 IF i=p THEN LET m=y: GOTO
160
140 IF y>m THEN LET m=y: GOTO 1
70
150 IF y>n THEN GOTO 180
160 LET n=y
170 PLOT a-x,91+y: PLOT a+x,91+
y: REM 84-y to invert
175 REM PLOT a-x,102+y: PLOT a+
x,102-y: REM 75-y to invert
180 NEXT i: NEXT x
330 PRINT #0; AT 1,0;"Press any
key to exit:"
340 PAUSE 0
350 BORDER 7: PAPER 7: PEN 0: S
TOP
```

Many thanks, Roy, and I'll be back with you later....

Now over to Robert Brady of Evington, Leicester, who mentions that you may have seen the TV program 'Countdown'. Here's SAM's equivalent:-

```
10 REM COUNTDOWN
20 LET a$="",b$="+++-/****",z
=0: DIM a(6)
30 FOR v=1 TO 6
35 INPUT "SIZE (1 or 2)";c$: I
F c$="1" THEN LET a(v)=RND(
8)+2
40 IF c$="2" THEN LET a(v)=(RN
```

```
D(3)+1)*25
45 PRINT a(v),
50 NEXT v
60 LET z=z+1: PRINT AT 21,0;z:
FOR n=1 TO 6
70 LET num=a(n)
80 LET a$=a$+STR$ num
90 IF n<6 THEN LET a$=a$+b$(R
ND(9)+1)
100 REM PRINT AT 1,0;a$
110 NEXT n
115 IF VAL a$<1 OR VAL a$>999 O
R VAL a$<>INT VAL a$ THEN L
ET a$="": GOTO 60
120 PRINT AT 2,32;VAL a$
```

While we're at it, here's a little puzzle for you to think about after dinner. Robert has a little program here called Pluralizer. Type in the word, and it supplies the plural, so Robert says. Well, it does, after a fashion. Type it in and see...

```
10 MODE 3: CSIZE 8,8
20 INPUT "A word, please ";a$
30 plural a$
40 PRINT "The plural of ','a$
',' is ','b$;,'"
50 GOTO 20
10000 DEF PROC plural a$
10010 LET a$=TRUNC$ a$,a$=SHIFT$
(a$,2)
10020 IF LEN a$<2 THEN LET b$=a$
:EXIT PROC
10030 LET v$="aeiouAEIOU"
10040 LET b$=a$+"s"
10050 REM PRINT LEN a$," "; PAPE
R 2;a$
10060 IF a$(LEN a$)="s" THEN LET
b$=a$+"es"
10070 IF a$(LEN a$)="x" THEN LET
b$=a$+"es"
10080 IF a$(LEN a$)="z" THEN LET
b$=a$+"es"
10090 IF a$(LEN a$-1 TO LEN a$)=
"sh" THEN LET b$=a$+"es"
10100 IF a$(LEN a$-1 TO LEN a$)=
"ch" THEN LET b$=a$+"es"
10110 LET a=INSTR(a$,"oo"): IF a
<>0 AND a$="goose" OR a$="
foot" THEN LET b$=a$( TO a
-1)+"ee"+a$(a+2 TO )
10120 IF a$(LEN a$)="y"
10130 IF NOT INSTR(v$,a$(LEN a$-
1)) THEN LET b$=a$( TO LEN
a$-1)+"ies": ELSE LET b$=
a$+"s"
```

```
10140 END IF
10150 IF a$(LEN a$-1 TO )<>"ff"
AND a$(LEN a$)="f" OR (a$(
LEN a$-1 TO )="fe")
10160 IF a$(LEN a$-2 TO LEN a$-1
)<>"oo" AND a$<>"oaf" AND
a$(LEN a$-1)<>"e" THEN LET
b$=a$( TO LEN a$-1-(1 AND
a$(LEN a$-1)="f"))+"ves":
ELSE LET b$=a$+"s"
10170 END IF
10180 IF LEN a$>4 THEN IF a$(LEN
a$-3 TO LEN a$)="ouse" AN
D a$<>"house" THEN LET b$=
a$( TO LEN a$-4)+"ice"
10190 LET a=INSTR(a$,"man"): IF
a=LEN a$-2 THEN LET b$=a$(
TO a-1)+"men"+a$(a+3 TO )
10200 REM PRINT AT 4,0; PAPER 2;
b$
10210 END PROC
```

And indeed, when I tried simple words, it made plurals by adding an 's'. Emboldened by my success, I tried 'mouse'. Magic! Robert's program knew the plural was 'mice'. After that, it fell down, though. Did you know that the plural of 'sheep' is 'sheeps'? And of 'phenomenon' is 'phenomenons', of bacterium, bacteriums, and of medium, mediums! We all know that the correct answers are 'phenomena', 'bacteria' and 'media', don't we? Well, Robert's program doesn't - yet. But it will, after you've sorted it, won't it... Just think about it, and send in your answers to Short Spot; we'll publish some really good, concise versions. And I mean concise: Robert's code is really tight, and blessed if I can see how it gets 'mice', or 'fairies', for that matter. But it does! Very neat, Robert! Let's have another, while we're at it.

Mastermind, which is a version of the board game, with four different numbers to choose from.

```
10 REM MASTERMIND (NUMBER)
20 MODE 4: CSIZE 8,8: PALETTE
30 BORDER 2: PAPER 2: PEN 15:
CLS : PALETTE 2,2
40 setupvars
50 setupscreen
60 DO
```

```
70 INPUT "Guess "; LINE b$:ch
eck b$: IF check=0 THEN GO
TO 70
80 IF a$=b$ THEN LET cr=1
90 LET c$=""
100 cp b$,a$
150 PRINT AT go+5,3; PEN 14;b$
, INVERSE 1;c$
160 EXIT IF cr
170 LET go=go+1: LOOP UNTIL go
=16
180 IF go=16 THEN PRINT AT 20,
0;"TOUGH LUCK, YOU LOST.";
AT 4,0;"The code was";a$:
ELSE PRINT AT 20,0;"WELL
DONE YOU GOT IT RIGHT"
190 INPUT "(ENTER) TO PLAY AGA
IN"; LINE a$
200 RUN
210 DEF PROC setupvars
220 LET go=0,cr=0
230 LET a$=STR$(RND(3)+1)
240 LET a$=a$+STR$(RND(3)+1)
250 LET a$=a$+STR$(RND(3)+1)
260 LET a$=a$+STR$(RND(3)+1)
270 END PROC
280 DEF PROC setupscreen
290 CSIZE 8,16: PRINT AT 0,11;
"MASTERMIND"
300 CSIZE 8,8
310 FOR n=1 TO 15
320 PRINT AT n+4,0+(1 AND LEN
STR$ n=1);n
330 NEXT n
340 PLOT 0,16: DRAW 0,120
350 PLOT 0,16: DRAW 255,0: DRA
W 0,120: DRAW -255,0
360 PRINT AT 21,0; PEN 14;"By
Robert Brady"
370 END PROC
380 DEF PROC check z$
390 LOCAL false
400 LET false=0
410 IF LEN z$<4 THEN LET fals
e=1: GOTO 450
420 FOR n=1 TO 4
430 IF z$(n)<"1" OR z$(n)>"4"
THEN LET false=1
440 NEXT n
450 LET check=NOT false
460 END PROC
470 DEF PROC cp a$,b$
480 FOR n=1 TO 4
490 IF a$(n)=b$(n) AND a$(n)<>
" " THEN LET c$=c$+"P",a$(
n)=" ",b$(n)=" ": GOTO 510
494 NEXT n
495 FOR n=1 TO 4
496 FOR m=1 TO 4
```

SAM GAMES AVAILABLE FROM REVELATION

SOPHISTRY

Our new licenced game. Originally produced for the Spectrum by CRL, and now brilliantly converted for SAM, Sophistry is a game that is big, perplexing, colourful, frustrating, musical, bouncy, and above all DIFFERENT (and it even has the Spectrum version built in so you can take a trip down memory lane).

£9-95 (£8-95 to INDUG members)

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> **THE SECRETARY** - The most advanced word-processor for SAM, powerful, versatile and easy to use. **NEW Version 1.5 Available Now** - The BEST just got better £14.95 (INDUG £12.95).
* Existing users can upgrade to 1.5. Send original disc, with a cheque for £5 (overseas add P&P below) to: **Secretary Updates**, C/o Format, 34 Bourton Rd, Gloucester, GL4 0LE.

> **COMET Z80 ASSEMBLER** - The professional SAM assembler - a must for anyone starting with machine code - **SPECIAL OFFER PRICE** until 31/12/94 £19.95 [normal price £29.95]

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* State which computer version (SAM or Spec) and disc size required (3 1/2" or 5 1/4").

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NEW - DRIVER EXTRAS. A set of extra applications to add even more features to DRIVER. Incl: Digital Clock/Alarm (needs SAMBUS), Calender, Cardfile (simple indexed data storage), Art-Grabber (cut & paste screen\$), Paintbrush (art package - worth the money just for this), plus a special DRIVER game. **Only £5.95** (INDUG price £4.95)

* All prices include UK postage and packing (Europe please add £1, other overseas please add £2).
* Payment by UK cheque (made payable to Revelation Software), PO or cash. Sorry but we can't accept orders by Euro-cheque or Giro.
* Please Quote INDUG membership number clearly on order if claiming discount.
* Send orders to:-

Revelation Software

Revelation Software, P.O.Box 114, Exeter, Devon, EX4 1YY.

```
500 IF b$(m)=a$(n) AND a$(n)<>
  " " THEN LET c$=c$+"C",a$(
  n)=" ",b$(m)=" "
505 NEXT m
510 NEXT n
520 END PROC
```

Many thanks, Robert: send us a few more sometime, please.

I've just had a letter postmarked Edinburgh from Miles Kinloch himself. It arrived in the nick of time, through my door this morning, and I'm taking the text to Bob this afternoon. He writes that here's a quick tip for Spectrum PLUS D users. Suppose you have a program that works only in 48k, and you want to make sure it will put itself into that mode when loaded, how do you do it? Well, you could use the SPECTRUM command, but the trouble with that, of course, is that it stops the program at the same time. Although some utilities already exist to switch modes during a running program, if you have a PLUS D, there is, in fact, a very simple solution.

```
10 POKE 23728,1
20 SPECTRUM
30 POKE 23728,0
40 PRINT "YOU ARE NOW IN 48K"
50 STOP
```

by POKEing 23728, the SPECTRUM command CAN, in fact, be made to work, without the program stopping, so it will then just carry on in 48k! Ah, but you may be thinking, "What happens if I'm already in 48k mode" when you run the above: the 'SPECTRUM' command then doesn't exist. However, this is no problem, either. On line 20, you'll have the UDG "t" instead, but because 23728 is POKEd, the "Nonsense in BASIC" error message that this would otherwise generate is ignored, so it just passes over it as though nothing had happened. In other words, no matter which mode you start up in, this simple technique will ensure you always end up in 48k. It could therefore be particularly useful to

include in 48k-only programs where a CAT LOAD program is in use, such as the one in November's Short Spot, as ALL programs could then be loaded initially from 128k, regardless of which mode they require.

What a super tip! Many thanks, Miles.

Finally, Bill Buxton noted that I was looking for something for Party time at Christmas, and submits this nonsense for our avid attention.

A friend, just back from San Francisco informs Bill that Computer users over there use such heiroglyphics, (which they call "Emoticons" rather than "Emotions") in their electronic communications with one another.

BEND - the Computer Language for the Layman By Bill Buxton

Do your nearest and dearest, together with many of your non-programming friends consider you to be a Computer Freak? Does the mention of Basic, Assembler Language and Machine Code send them into polite but noticeable hysterics? Fear no: they are not irredeemable! At your next party, you will be able to introduce them to your new Computer Language - BEND, or as it's known in the trade 'BASIC EMOTIONS NINETY DEGREES'

First, you should provide each guest with a computer. If you are so mean that you can't manage this, I guess you'll have to put up with paper and pencils. If you have opted for the latter, a few printouts of all the letters and symbols the keyboard is capable of producing will help things along: a printer will print these out automatically. You've forgotten how: then look up the manual. Lost it; then you'll have to photocopy the ASCII code from the back of the Spectrum Manual.

The rules of the game are very simple. Explain these to your captive audience-guests - as follows:-

1. BEND words must represent facial expressions only.
2. BEND words must not exceed a total of SIX combined symbols or letters.
3. BEND words must be constructed only of the characters provided.
4. To make sense of the BEND words, the paper must be turned on its side. Hence the name Ninety Degrees in the title.

You can now demonstrate, either with your computer or preferably by drawing, the following:-

:-) in BEND means 'Happy'
:-D means 'Spoken with a smile'
and so on.

Now ask the guests to make their own BEND vocabulary with a definition against each one. The winner to be presented with a bottle of scotch, or a tin of Kit-E-Cat, depending on the state of your pocket. Here is a list of some BEND words Bill has compiled, just to start you off:-

:), Smirk.
:-(Unhappy.
:-) Happy.
:(- Very sad.
/(- The morning after.
:-* Oops.
:-D Spoken with a smile.
:-O Shouting.
:-< Forlorn.
:/) Not amused.
:-X Kiss.
:-X-X Lots of kisses!
<:-) Merry Christmas.
;-) Wink.
;-) Alternative wink.
;-/ Tongue-in-cheek.
:-p Tongue stuck out!
:-< For those with Moustache.
:-<= And beard as well.
:-I Alternative smirk, or told you so.
:-8 Talking out of both sides of your mouth.

...and so on.....

Finally, Bill suggests you add your own BEND messages to exchange with your friends. You can add them to your letters and faxes, and your fame will then spread as a 'Teacher of Computer Languages to the Layman'

With Best wishes from Bill :-) :-/ :->
<:-)=

And many thanks for your splendid ideas and suggestions.

And that's all for now, folks. Just to mention that those of you who knew my old telephone number: well, it's been changed: the '82' bit's now '462', but BT have discontinued the recorded announcement far too early. Finally, the usual plea: please send all your snippets and ideas to:-

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

See you next month, have a happy Christmas.



SC_WORD pro

Reviewed By:- Carol Brooksbank.

This new SAM wordprocessor from Steve's Software cannot be used with just any combination of SAM/printer. It works only with a 24-pin dot matrix or a 48-pin bubble jet printer, and needs a minimum of 512K Sam, with Masterdos. A 1-Meg. expansion is highly desirable, though the program is usable - even if a bit fiddly - without one. You also need a printer with very accurate sheet feeding, because the program often requires you to put the paper through more than once to produce a page.

It is not an ordinary wordprocessor, printing text with the printer's inbuilt fonts, although it can do that. This program's real purpose is to print hi-res text using the special fonts supplied. Fig.1 shows all of the fonts, in some of the sizes, which come with it, and you can see how superb the printing is. An impressive range of extra fonts is promised for sale around the New Year, when a new manual will also be issued, replacing the present temporary one with its updating sheets.

The pack contains three discs, and you need five formatted discs to prepare your working copy, one for the program and four for the decompressed fonts. You can customize for 24-pin or 48-pin printer; mouse or keyboard; and even for whether you are left- or right-handed, so that the mouse 'select' button is the one under your index finger. Once you have your working copies you install the fonts into the program and are ready to start.

The wordprocessor itself is very straightforward, though not terribly sophisticated. There are the usual cursor movements, add, insert and delete text, with some minimal block facilities (mark, and delete or copy blocks) and a simple word search. Files from other wordpros can be converted and loaded into it.

At the start of any paragraph you can choose print size, and right, left, centre or full justification. You can change fonts and font style (bold, underlined etc.,) at any point in the text, provided you use the same size throughout a paragraph.

The ASCII printout is much like any other wordprocessor's output, but hi-res printing is very different. First, you specify the size and position of a box, measured in millimetres from the top and left edges of the paper, within which your printing is to take place. Your text can be surrounded by a border (two styles, each in a choice of three thicknesses) or printed on one of 32 shaded or textured backgrounds. Inverse printing is done by using a dark shading and white print.

If you are printing without shading or a border, your text will continue on another page when the box is full, and you can print out a whole document, one or multiple copies. But if you use a border you must have a separate file for each box - and so for each page. If you need more than one box on a page - there are two in fig.1, for the heading and the

Fig.1

SC_WORD pro

TESTING

This is to test the hi-res printing with SC_WORD pro. This part is in NC_SCHOOLBOOK font, size 5, normal weight, except for SC_WORD pro, where we went into NC_SCHOOLBOOK bold and then into HOUNDS italic.

Each font can be printed in 10 sizes, plus a headline size which is shown in the word TESTING above. This para is in size 2. Sizes, and centre, right justified, left justified or fully justified text can only be changed at the start of a para, but font and bold/normal or underlined/not underlined can be changed anywhere in the text. This para is in SANS SERIF font.

Here we go into HOUNDS, size 7. NC_SCHOOLBOOK and SANS SERIF offer normal and bold print, as shown in paras 1 and 2. HOUNDS comes in normal or italic, as shown in this para.

Finally, there are two fonts supplied with the program which come in only one style each. This one is OLYMPIAN. The other is FUTURE, which was also used in TESTING. This para is left justified.

Other fonts will be available for purchase around Christmas time. Those shown in this demo are all supplied with the program. Text may be surrounded by boxes, or printed on shaded paper. Shaded paper is demonstrated in the header to this sample page, and the two styles of box, with two of the box thicknesses are also shown in this test page.

main body of the text - you must put the paper through twice because each box is printed separately.

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The pack contains three discs. One is the master from which you make your customized working copy, on a formatted disc with Masterdos, for 24-pin or 48-pin printer; mouse or keyboard; and even whether you are left- or right-handed, so that the mouse "select" key is the one under your index finger. The other two discs contain the fonts in compressed form, and you need four more formatted discs onto which to decompress the working font files.

Once you have your working copies you install the fonts into the program and you are ready to start.

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If you are printing without shading or a border, your text will continue on another page when the box is full, and you can print out a whole document, one or multiple copies. But if you use a border you must have a separate file for each box - and so for each page. If you need more than one box on a page - there are two in fig.1, for the heading and the main body of the text - you must put the paper through twice because each box is printed separately.

A preferences menu option lets you specify box size, paragraph indentation, whether you want a border or shaded paper, the range of pages to print, page number of copies, the spacing between words or lines, and, for ASCII printouts, the pitch, left margin and columns per line. When you save a file to disc, all these preferences are saved with it.

You can also opt to print to disc during the printing - a useful option because the normal printout is very slow, with many prompts for changing font discs (though with a 1-meg these prompts only happen on the first copy). If you print to disc, a supplementary "Image" program gives a faster printout. It took 42 minutes to print the first copy of Fig.1, but the Image printout took only 10 minutes, with no font disc changes. The drawback

is that you must have a separate disc for every block, and even with Image you must keep putting the paper through again to print every block.

However, that is going to improve. Steve's Software tell me that a new program will be available around Christmas which will link together all the disc image files - text and illustrations - and print the whole page in one pass. But this will need a 1-meg expansion.

The screendump is one of the best monochrome dumps I have seen for SAM, though 24-pin printouts are a little dark and you get better quality with a worn out ribbon than with a new one. The quality of ink-jet dumps is superb. The dumps come in two sizes, credit-card and one-third A4.

Once you start flowing text round illustrations, the number of boxes per page starts to multiply, and consequently so do the number of discs you need to save the images, and the number of times you put the paper through.

Even though you can, in theory, design your page by taking careful measurements, I found that I still needed to make lots of reprints, moving boxes and pictures a millimetre or so each time.

There is no doubt that this program produces the highest quality printouts currently available on SAM, but you need a lot of time and patience to use it. Even when the one-pass page printer is available, we shall still be a long way from being able to design the page on screen, and know exactly what you will get in your printout. SC_WORD pro is superb for single pages or leaflets, but I doubt whether my patience is equal to trying to use it for the production of a 100 page booklet.

Below you will find details of the full range of SAM hardware now available.

CODE	DESCRIPTION	PRICE
COMPUTERS - Now with extended two year warranty.		
W1010	SAM elite - 512K - Single Drive. The latest computer in the SAM family. 512K RAM, Single Drive Machines now with Built-in Printer Interface.	£199.95
W1011	SAM elite - 512K - As above but with Dual Drives fitted.	£259.95
W1012	SAM Coupé Special Pack . 256K with external disc/printer interface. A special limited offer, ideal for anyone upgrading from PLUS D as you can use your existing disc drive. Because these machines have been in storage for some time there may be some slight marks on casing but all are fully tested and guaranteed.	£109.95
INTERFACES (work with both SAM elite and SAM Coupé unless otherwise stated)		
W1101	SAM Disc Drive Upgrade. Have a second drive fitted to your SAM elite or Coupé. Factory fitting and return postage included in price. Ring 0452-412572 for instructions on how to return your computer.	£79.95
W1121	SAM Coupé Disc Upgrade Kit - all you need to upgrade to a twin drive machine. Needs good soldering skills to fit. You also need de-soldering tool to remove one of the connectors on the main SAM board. Comes complete with all instructions, components and a top quality 3½" drive mechanism.	£64.95
W1122	SAM Coupé Disc Upgrade Kit - as above but without drive mechanism.	£29.95
W1102	External Parallel Printer Interface. (for Coupé)	£24.95
W1103	RS232/Parallel Interface (COMMS). (for Coupé)	£34.95
W1104	1 MegaByte External Memory Pack. (Needs MasterDOS to run from Basic).	£89.95
W1106	SAM Mouse System. Interface, Mouse and Software. Plugs into mouse port on rear of SAM. More and more software now works better if you use a mouse.	£39.95
W1107	External Disc Drive Interface and Parallel Printer Port (for Coupé)	£44.95
W1108	Internal 256K Upgrade (for older SAMs with only 256K of memory)	£34.95
W1109	TWO ⁺ allows two interfaces to be connected to SAM expansion port at same time. <i>Special Offer</i> - Save £5 if ordered at the same time as any SAM interface.	£24.95

Prices valid until 1st Feb 1995. E.& O.E.

Ordering: Write your order clearly on a reasonable sized piece of paper, state your name; address and phone number and quote your INDUG number is you are a member). **Payment:** Cheques and UK Postal Orders, should be made payable to **West Coast Computers**.

Postage & Packing: Prices now include UK P&P. Overseas customers please write for quote on Insured Airmail Delivery Service.

BUSINESS AS USUAL

The problems at Blue Alpha, caused by Mark's illness, have caused slight delays but we are doing our very best to ensure that these do not affect our customers unduly. Alternative arrangement have been made for assembly work, so normal service will continue. We are also making special arrangements for repairs.

XMAS FUN



"Looks like rain dear"



What did the doctor give you for your wind?



"He makes an abominable snowman"



"I'm a Scare-Penguin... so push off"



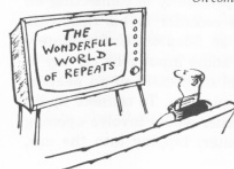
"Why do you dress up like an idiot? ... no-one ever sees you"

The police were called to an office part where a distressed secretary leveled a charge of assault against her boss for stapling her breasts together. The police demanded an explanation from the man, who coolly replied, "I'm a great believer in the old adage: if you can't lick 'em, join 'em."



How do you burn a Nintendo owner's ear? Phone him when he's ironing.

Marriage is a three ring circus. First the engagement ring, then the wedding ring, and, finally, the suffering...



"Oh come on - every year you say 'never again, I'm knackered'"



"Hoe! Hoe! Hoe!"

The HELP PAGE

Edited By:- Ray Bray.

Seasons greetings to you all. Only a few more computing days left before you have to pull the plugs on your computers and be sociable to everyone!

The first letter this month comes from Rusty Atkins of Reading. His set-up is a Spectrum+2 with TV monitor and a PLUS D interface, alongside a SAM with interface and TV monitor. Rusty wishes to make a switchbox so that a printer and an external disc drive can be switched between the two computers without the bother of having to swap the IDC connectors. As this involves a total of 21 lines to be switched, he wonders whether some could be wired together permanently. I can appreciate your wish to cut down on the number of switched lines as each switch point is a potential source of failure. However, if you directly wire any lines they will have to be provided with isolating circuits to eliminate mutual interference and this starts to complicate things. Far better to buy good quality data transfer switch boxes (which are very reliable), and switch all the lines.

In the case of the printer there is no problem in obtaining a manual two way data switch with the appropriate leads already made up. It is then just a matter of plugging everything in and you will then have the facility to switch the printer from computer A to computer B whenever required. I already use such a set-up to switch between SAM and Spectrum and I obtained the switch box and leads from CompuAdd, 7 Great Western Way, Bristol. On the question of

switching a disc drive, I have not had experience of this but I know a reader who had a set-up to switch between 2 X 3.5" drives and 1 X 3.5" drive plus 1 X 5.25 drive on one computer, which is a more complicated problem. I assume that the SAM interface you own is the external drive/parallel printer interface? The same type of data switch can be used (it has 22 pin sockets), but in this case you will have to make up the appropriate leads yourself. The only thing that worries me about switching the disc drive, is what happens if you inadvertently try using the drive on one computer when it is in fact switched to the other one? In the case of the printer the computer just hangs up until you realise that the switch is in the wrong position and, by changing the switch to the correct computer, the program is allowed to continue unharmed. I am not sure what would happen in the case of the disc drive - would the program crash or the disc be corrupted when the switch position was changed? Perhaps you will just have to be careful not to make a mistake!

We have another letter this month, from Harald Lack of Raubling in Germany. Firstly he wishes to know if there is any possibility of connecting an external tape recorder to his Spectrum +2 by using an adaptor. Unfortunately there are no audio input pins on any of the rear panel connectors so an adaptor is out of the question. To connect up an external recorder would involve opening up the computer, tapping into the ear,

mic and earth lines of the on-board recorder and fitting a switch and socket to allow switching between the internal and external recorders. I am sorry I am unable to give you precise details of how to do this but perhaps one of our readers can provide the answer.

Harald's second question concerns using his Spectrum+2 with Wordmaster/Headliner/Typeliner to get printed output to a Seikosha SP180 printer connected via a Euroelectronics parallel interface. The problem is that although Wordmaster works perfectly, if he tries to print something using Typeliner, the computer hangs up completely. You mention that you have initialised the interface with the command LPRINT; CHR\$ 5 which means "Tokens OFF". I am not familiar with the Euroelectronics interface but I suspect that "Tokens OFF" means the same as 'let all code through unaltered' i.e. let ASCII code 255 go through as 255, do not change it into the token COPY (see the list in the Spectrum manual). If this is the case then the problem is probably that Wordmaster is just sending text to the printer while Typeliner is trying to send bit-image graphics and, if the printer is not 100% Epson compatible, then one of the codes that goes out is turning the printer off-line. Any other reader come across a similar problem? Let us know if you found a solution.

The next letter also comes from another overseas subscriber. Petros Davakis has written from Athens asking how to connect his grey Spectrum+2 to a Philips VSO060 colour monitor which is fitted with CVBS (video) IN, AUDIO IN and SCART connectors. Assuming that the SCART socket on the monitor is standard (but I have been unable to confirm this), then the pin connections are as follows:-

Note also that pins 20 and 16 of the

SPEC RGB PIN	SCART PIN
1	20
2	14
4	16
6	11
7	15
8	7
Shield	21

SCART plug should be linked. The BRIGHT pin of the RGB socket is not used but if you have trouble with obtaining sufficient brightness, then try replacing the wire link between pins 20 and 16 with a 1K resistor. The best way of connecting the sound is to use the tape/sound socket to feed the AUDIO IN connector on the monitor. Check with the Spectrum handbook as to the means of connecting the 3.5mm plug, which needs to be a stereo plug with only the two outside lands connected.

The last letter this month comes from C.Murray of Warrington who asks if he could be provided with a way of printing out shaded screen dumps on the Brother HR-5 printer using the PLUS D's SAVE SCREEN\$ commands etc. He also wishes to know the address of the PLUS D's printer port and how to control it. The answer to your first query is to obtain LCOPY2 through **FORMAT** Reader Services (the order code is FST-01 and it costs £4.50 including p&p). This is a set of routines to merge with the system file replacing the existing dump routines. You might also look at Carol Brooksbank's excellent article in October's **FORMAT** which describes an improved dump routine. On the question of which port the PLUS D uses to print, the answer is I don't know! I am not sure why one would need this information as if you wish to use the PLUS D routines to print anything using m/c then there are two methods available.

Turn to page 38.



110 cpi Draft 310mm Width
110 cpi LQ 048mm Height
221mm Depth

£185 CANON BJ10ex

Handles one single sheet of paper at a time only. Printer is the same size as the Sam Coupe, for those on a budget this printer is an ideal start to the Ink jet world.



248 cpi Draft 347mm Width
173 cpi LQ 194mm Height
124 cpi SLQ 173mm Depth

£235 CANON BJ200.

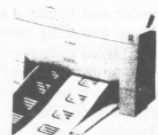
Automatic 80 sheet feeder.
A very quiet stylish printer.
Very compact design if you don't have much desktop space.



250 cpi Draft 435mm Width
165 cpi LQ 154mm Height
264mm Depth

£215 EPSON STYLUS 800+.

Automatic 100 sheet feeder.
Paper only, cannot print on labels.
A mid range ink jet printer, with ink running costs of 3p an A4 sheet of paper compared to 4p for the above 2 printers.



496 cpi Draft 365 Width
346 cpi LQ 186 Height
206 Depth

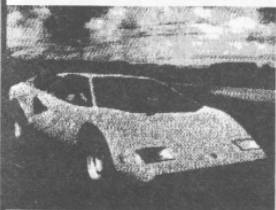
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By:- Etrick Thomson.

There have been calendar-producing articles in *FORMAT* before: the justification for this one is that it does not produce just one calendar format. SAM procedures are given that can be used to print (on paper) calendars of various types: it is up to the user to use these procedures to produce the calendar of his choice. Programs are given for two examples: a year's calendar on one sheet of paper (Fig.2) and a calendar on 12 sheets, one for each month, in which the current month is displayed in large characters, and the previous and following months in normal-size characters (Fig.3).

The basic procedure is 'monthfigs' (Lines 200-320), which puts in the array 'mthfigs' the numerical part of a calendar for a given month and year of the Gregorian Calendar; this was adopted in the UK in the middle of September 1752, when Wednesday the 2nd was followed by Thursday the 14th; so 'monthfigs' can be used from October 1752. If you will enter the programs

October 1994	
Monday	3 10 17 24 31
Tuesday	4 11 18 25
Wednesday	5 12 19 26
Thursday	6 13 20 27
Friday	7 14 21 28
Saturday	1 8 15 22 29
Sunday	2 9 16 23 30

Fig.1

given up to Line 470, and RUN, then you can see, on the screen, the sort of thing that monthfigs can be used for; Fig.1 gives an example.

The array 'mthfigs' (Line 120) has 12 sections, one for each month, divided into 7, one for each weekday, and each day has a 17-character string, enough to cater for 6 weeks at 2 digits per week with one space between weeks. In Fig.1, the figures spread over 6 weeks, but most months need only 5, with the 6th column blank, and a 28-day February will sometimes need only 4 weeks, with columns 5 and 6 blank. Fig.1 also shows day and month names, which use the arrays m\$() and d\$(), set up in PROC arrays, and the year number. Such information will always be needed in a calendar, but the precise format is up to the programmer: in Fig.2, for example, one day name covers 3 months; in Fig.3, most names have been abbreviated to the first three letters. The procedure demo (Line 400-470) shows how monthfigs and the other data have been used to assemble a calendar for a given month.

There are two modifications to 'monthfigs' you might wish to consider. In Fig.1, there are completely blank spaces where there are no day-numbers; sometimes, the appearance is improved by putting a '.', as in Fig.3. This is controlled by the first string in Line 280, either ' ', or '-.'. Fig.1 shows Monday as the first day of the week; this was a

1995											
January				February				March			
Monday	2	9	16	23	30			6	13	20	27
Tuesday	3	10	17	24	31			7	14	21	28
Wednesday	4	11	18	25		1	8	15	22	29	
Thursday	5	12	19	26		2	9	16	23	30	
Friday	6	13	20	27		3	10	17	24	31	
Saturday	7	14	21	28		4	11	18	25		
Sunday	1	8	15	22	29		5	12	19	26	
April				May				June			
Monday	3	10	17	24		1	8	15	22	29	
Tuesday	4	11	18	25		2	9	16	23	30	
Wednesday	5	12	19	26		3	10	17	24	31	
Thursday	6	13	20	27		4	11	18	25		
Friday	7	14	21	28		5	12	19	26		
Saturday	1	8	15	22	29		6	13	20	27	
Sunday	2	9	16	23	30		7	14	21	28	
July				August				September			
Monday	3	10	17	24	31			4	11	18	25
Tuesday	4	11	18	25		1	8	15	22	29	
Wednesday	5	12	19	26		2	9	16	23	30	
Thursday	6	13	20	27		3	10	17	24	31	
Friday	7	14	21	28		4	11	18	25		
Saturday	1	8	15	22	29		5	12	19	26	
Sunday	2	9	16	23	30		6	13	20	27	
October				November				December			
Monday	2	9	16	23	30			4	11	18	25
Tuesday	3	10	17	24	31			5	12	19	26
Wednesday	4	11	18	25		1	8	15	22	29	
Thursday	5	12	19	26		2	9	16	23	30	
Friday	6	13	20	27		3	10	17	24	31	
Saturday	7	14	21	28		4	11	18	25		
Sunday	1	8	15	22	29		5	12	19	26	

Fig.2 - A Full Year On Display.

decision of the International Standards Organization, which the UK decided to adopt in 1971. For centuries before that, Sunday was the first day. If you prefer Sunday, change Line 140 to read "DATA Sunday, Monday..." and change the string in Line 250 to "143614625035".

```

5 REM Calendars
10 arrays
20 demo
30 STOP
100 DEF PROC arrays
110 LOCAL d,m
120 DIM m$(12,9),d$(7,9),mthfigs(12,7,17)
130 FOR d=1 TO 7: READ LINE d$(d): NEXT d
140 DATA Monday,Tuesday,Wednesday,Thursday,Friday,Saturday,Sunday

```

```

150 FOR m=1 TO 12
: READ LINE m
$(m): NEXT m
160 DATA January,February,March,April,May,June,July,August,September,October,November,December
170 END PROC
200 DEF PROC monthfigs y,m
210 LOCAL p,dm,d,n,t,d$
220 LET p=NOT y MOD 4 AND y MOD 100 AND NOT y MOD 400
230 LET dm=28+VAL "3p323233"
240 LET y=(y-(m<3)) MOD 400
250 LET d=1-(y+y DIV 4-y DIV 100+VAL "032503514624"*(m))
260 FOR t=1 TO 16
STEP 3
270 FOR n=1 TO 7
280 IF d<1 OR dm<d THEN LET d$=" "
: ELSE LET d$= " " AN
D d<10)+STR$ d
290 LET mthfig$(m,n,t TO )=d$,d=d+1
300 NEXT n
310 NEXT t
320 END PROC
400 DEF PROC demo
410 INPUT #2;"year:";y,"month(1-12):";m
420 PRINT "TAB 9;TRUNC$ m$(m);" "y;"
430 monthfigs y,m
440 FOR d=1 TO 7
450 PRINT d$(d);" " ;mthfig$(m,d)
460 NEXT d
470 END PROC

```

Before we pass on to consider printed calendars, we must say something about printer codes, for the two examples given here frequently have to pass new codes

to the printer, and printer codes, unfortunately, can be different from printer to printer. In these programs, codes are passed to the printer by PROC printer:-

```
500 DEF PROC printer DATA
510 LOCAL c,c$
520 OPEN #5,"b"
530 DO WHILE ITEM
540 IF ITEM=1 THEN READ c$: PR
  INT #5;c$; ELSE READ c: P
  RINT #5;CHR$ c;
550 LOOP
560 CLOSE #5
570 END PROC
```

so all the user has to do is to make the right calls: each call of printer can deal with as many codes as you choose, each element of a code being separated by commas. Thus printer 12 (form feed), printer 27,"@" (reset printer), printer 27,"x1" (select NLQ characters) are all possible calls (for a STAR LC-10II printer); sometimes, as the manual shows, alternative forms are possible: thus NLQ can be specified by printer 27,"x",1 or printer 27,120,49 or printer 27,120,1. In the programs that follow,

December 1994									
Mon	-	5	12	19	26	-			
Tue	-	6	13	20	27	-			
Wed	-	7	14	21	28	-			
Thu	1	8	15	22	29	-			
Fri	2	9	16	23	30	-			
Sat	3	10	17	24	31	-			
Sun	4	11	18	25	-	-			

Nov 1994					Jan 1995				
Mon	-	7	14	21	28	-	Mon	-	2
Tue	1	8	15	22	29	-	Tue	3	10
Wed	2	9	16	23	30	-	Wed	4	11
Thu	3	10	17	24	-	-	Thu	5	12
Fri	4	11	18	25	-	-	Fri	6	13
Sat	5	12	19	26	-	-	Sat	1	8

Fig.3 - The 12 Sheet Layout

each call of printer is followed by a REM showing the effect of the various codes in the call, so this will show whether the printer codes have to be changed to suit your printer. The programs assume certain default settings: Pica pitch; left margin 0; right margin 80; line spacing 6 to the inch.

The calendar with a year to a page is handled by PROC year1 (lines 600-660), which uses PROC threemonths (lines 700-770), and, of course, PROC monthfigs etc. To use it, change line 20 from '20 demo' to '20 year1' and RUN; the required year is entered from the keyboard, and appears on the screen; then the printing starts. The layout is suitable for paper size A4 (11.7 x 8.3 inches) or demy-quarto (11 x 8.5 inches). The printer codes are for a Star LC-10II.

```
600 DEF PROC year1
605 LOCAL q
610 INPUT #2;"year:";y
615 printer 27,"x1",27,"k",0,2
  7,"h",1,27,"a1"
617 REM NLQ, courier font, dou
  ble-height/double-width, c
  entre text
620 LPRINT y''
625 printer 27,"h",0,27,"a0"
627 REM normal height,width,le
  ft justify
630 FOR q=1 TO 10 STEP 3
635 threemonths q
640 NEXT q
645 printer 27,"S1",15
647 REM subscript,condensed
650 LPRINT '' TAB 12;"Computer
  Program: Ettrick Thomson"
655 printer 27,"@"
657 REM reset printer
660 END PROC
700 DEF PROC threemonths fm
710 LOCAL d
720 LPRINT '' TAB 22;m$(fm); T
  AB 42; m$(fm+1); TAB 62; m
  $(fm+2)''
730 monthfigs y, fm: monthfigs
  y, fm+1: monthfigs y, fm+2
740 FOR d=1 TO 7
750 LPRINT TAB 6;d$(d); TAB 17
  ;mthfig$(fm,d); TAB 37;mth
```

```
fig$(fm+1,d); TAB 57;mthfi
g$(fm+2,d)
760 NEXT d
770 END PROC
```

The 12-sheet calendar, one sheet of which is shown reduced in Fig.3, comes from Carol Brooksbank; PROC year12, which uses PROCs largemth, smallmth, produces it: change line 20 to '20 year12' and RUN. The large-character part occupies all 80 pica characters of a line, i.e. eight inches, so, if using single sheets, make sure the paper is inserted so that the eight inches is in the centre of the paper width.

The printer codes, which include codes for colour, are for the Citizen Swift 9 colour printer.

```
800 DEF PROC year12
805 INPUT #2;"year:";y
810 printer 27,"@",27,"C",70,2
  7,120,49,27,107,0
812 REM reset; A4 page length
  70 lines (A4): NLQ; ROMAN
  font
815 FOR m=1 TO 12
820 largemth y,m
825 smallmth y,m
830 IF m<12 THEN printer 12
832 REM form feed
835 NEXT m
840 printer 27,126,49,0,15
842 REM normal height/width;co
  ndensed
845 LPRINT '' TAB 12;"Comput
  er Program: Ettrick Thomso
  n: Carol Brooksbank"
850 printer 12,27,"@"
852 REM form feed; reset
855 END PROC
900 DEF PROC largemth y,m
905 LOCAL n
910 printer 27,126,49,6,27,114
  ,1,27,"a1"
912 REM quadruple height/width
  ;red print;centre text
915 LPRINT TRUNC$ m$(m); " ";y'
  '
920 monthfigs y,m
925 FOR n=1 TO 7
930 printer 27,114,2,27,"a0"
932 REM green print; left just
  ify
935 LPRINT d$(n, TO 3);
```

```
940 printer 27,114,0
942 REM black print
945 LPRINT mthfig$(m,n)
950 NEXT n
955 END PROC
1000 DEF PROC smallmth y,m
1010 LOCAL n,y1,y2,m1,m2
1020 printer 27,126,49,0
1025 REM normal height/width
1030 LET y1=y-(m=1),m1=m-1+(12
  AND m=1),y2=y+(m=12),m2=m+
  1-(12 AND m=12)
1040 LPRINT '' TAB 18;m$(m1,
  TO 3); " ";y1; TAB 53;m$(m2
  , TO 3); " ";y2''
1050 monthfigs y1,m1
1060 monthfigs y2,m2
1070 FOR n=1 TO 7
1080 LPRINT TAB 10;d$(n, TO
  3); " ";mthfig$(m1,n);
  TAB 45;d$(n, TO 3); "
  ";mthfig$(m2,n)
1090 NEXT n
1100 END PROC
```

If these two calendar formats do not produce the calendar you would like, then the information given will, I hope, allow you to assemble a program to produce just exactly what you want.

Editor's Notes: Some of the printer control codes used in this article may not be available on your printer, even if it preports to be Epson standard. In fact I had difficulty with Fig.3 and in the end had to cheat. However, do not let this put you off. You should be able to play with the final print to get something that will work on your printer and it is the routines that form the heart of this program - the calendar calculation routines themselves - that are the important part of the article, once the arrays are created printing them is just the icing on the cake.

I'm sure many readers will come to value Ettrick's excellent program.

Now, how about one that gets me an extra week each month so I can catch up with all those jobs I'm behind on. **Bob.**

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BASICally Speaking...

Part 11.

By:- David Finch.

It's time to rig up your computer to some magnetically shielded, three way, reflex, wide frequency range, AC suspension, 120W power handling speakers since this month we are covering sound.

In fact, connecting your computer to your hi-fi isn't as barmy as it sounds. 48k Spectrums produce sound out of the ear socket (avoiding that awful speaker), +2 and +3 Spectrums have a sound socket (labelled tape on the +3 I believe), and SAM's produce stereo sound out of the Light Pen/Gun socket. In each case, I'm sure someone can produce a suitable lead for your requirements. Anything is better than the sound you get through the TV system.

Sound can be very useful. A confirming pip or a warning beep are a quick and easy way of telling the user how things are going. We produce sounds using the BEEP command. It is followed by two numbers or numerical expressions. The first number is the duration, the second is the pitch. The pitch is set so that middle C is zero. C sharp is one, D is two and so on... You can gain an octave by adding twelve to the number, and lose an octave by subtracting twelve from the pitch. (See the illustration at the foot of

this page.) Try these:-

Confirming pip - BEEP 0.05,12

Warning beep - BEEP 0.5,-12

'Yes' sound - BEEP .05,0:BEEP .1,12

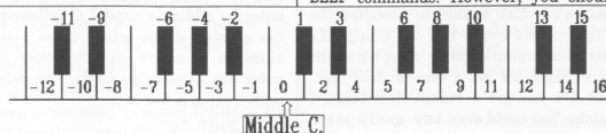
'No' sound - BEEP .1,0:BEEP .2,-12

I am proud to say that my musical skills are as good as my drawing skills, but never mind. It is possible to 'seem' like you are playing more than one note at a time by playing the notes for short intervals and repeatedly (although the effect in Basic is aurally poor). Try the following program, and don't worry about the READ and DATA bits if you don't understand since we will be covering them soon (they simply state what notes are played in this example).

```
10 FOR a=1 TO 8
20 READ b: READ c
30 FOR d=1 TO 7
40 BEEP 0.01,b
50 BEEP 0.01,c
60 NEXT d
70 NEXT a
80 DATA 0,0,0,4,0,7,0,12,12,12,12,16,12,19,12,24
```

The word 'musical' could hardly be used to describe that, but you can use your imagination to see how that could be used for a real tune.

The usual way to write music using BEEP is to simply program a series of BEEP commands. However, you should



be aware that there is no way of detecting a key press while a BEEP is in progress. With a series of BEEPs the user would have to wait until the music has stopped before doing anything, or press BREAK and quit to the Basic list. The point I am trying to make is that if you have a merry tune of 'My Old Man's a Dustman' at the start of your program which takes a few minutes to play, you should have a GOSUB between every BEEP to detect a key press (and quit if necessary) so a user can skip the music.

A problem with writing a series of BEEP commands is that if you want to change the tempo (speed) or the key, then you would have to change each and every BEEP command (which is more tedious than watching Neighbours in the afternoon when you have seen it at lunchtime). Try this (adapted from the 48k Spectrum Manual).

```
10 LET c=1: LET k=0
20 BEEP c,k:BEEP c,k+2:BEEP c/2,k+3:BEEP c/2,k+2:BEEP c,0
30 BEEP c,k:BEEP c,k+2:BEEP c/2,k+3:BEEP c/2,k+2:BEEP c,0
(NOTE: For line 30 simply copy line 20)
40 BEEP c,k+3:BEEP c,k+5:BEEP 2*c,k+7
50 BEEP c,k+3:BEEP c,k+5:BEEP 2*c,k+7 (Copy line 40)
60 BEEP 0.75*c,k+7:BEEP c/4,8; BEEP c/2,7:BEEP c/2.5:BEEP c/2,3
70 BEEP 0.75*c,k+7:BEEP c/4,8; BEEP c/2,7:BEEP c/2.5:BEEP c/2,3 (Copy line 60)
80 BEEP c,k:BEEP c,k-5:BEEP 2*c,k
90 BEEP c,k:BEEP c,k-5:BEEP 2*c,k (Copy line 80)
```

If you want to speed it up you should reduce c (which stands for Crotchet - the length of one beat). You can change the key by changing k. So by using c/2 as the note length we get a quaver (half beat) and 2*c you get a minim (two beats, I think). You could even LET q=c/2 at the

start and place a 'q' for the note length every time you want a quaver. I think you get the idea...

If you have some kind of musical instrument you should have a go at programming some well known tunes by ear (and trial and error). I remember spending ages with my mum trying to get Eastenders to play on my 128k Speccy. It is a lot easier to write music on the 128k since you type in the actual letters of the notes rather than numbers, and you can play up to three notes at once (three channels). To do this you must use the PLAY command, which is not available in 48k Basic or SAM users. In fact, I think the PLAY command is the only time that Spectrum 128k Basic is much better than SAM Basic so you 128k-ers should be proud of your command!

You use PLAY with up to three strings. These strings can be given in quotes, or as a string expression. For example:-

```
10 LET a$="cdefgab"
20 LET b$="CDEFGAB"
30 PLAY a$,b$
Is the same as:-
10 PLAY "cdefgab","CDEFGAB"
Is the same as:-
10 LET a$="cde"
20 PLAY a$+"fgab","CDEFGAB"
...Etc.
```

Quite obviously, the letters A to G (upper and D lower case) correspond to the respective notes. The upper case is always one octave above the lower case (so you have access to two octaves at a time). You can change the octave of the notes by adding a capital O followed by the number of the octave (from 1 to 8, although in octave one the lower case notes don't sound too good). The default octave value is five so...

```
10 PLAY "C"
```

```
or 10 PLAY "O5c"
or 10 PLAY "O4c"
will play note c in octave 5, whereas...
```

```
10 PLAY "O4c"
will play c in an octave below.
```

You can play a sharp note by preceding it with a # symbol and you can play a flat note by preceding it with a \$ symbol (non musicians may not realise that C sharp is the same note as D flat - i.e. they are half way between the notes, sharp being above, flat below)

So far the music can only play crotchets (one beat notes). To change the length of the notes being played you should simply insert a number into the string where the note length is to be changed, and from then on the notes will be that length. For example, if you insert a 3 then all the following notes will be quavers, until another change is made (for example a 5 would change it back to a crotchet). The following table list the numbers that you need...

Number	Note
1	Semi Quaver (1/4 beat)
3	Quaver (1/2 beat)
5	Crotchet (1 beat)
7	Minim (2 beats)
9	Breve (4 beats)

If you have just set something else (for example, the octave) and then want to change the note length you may try this:-

```
10 PLAY "O43c"
```

To play a quaver, c one octave down, but to the computer that reads as if you want to change the octave to number 43 (which would be out of range). Instead you must insert a capital N before the number for the note length, so the correct line would be...

```
10 PLAY "O4N3c"
```

There is no need to insert the N if the note length number follows a letter. Also,

you can create a note three beats long by inserting the note length as follows...

```
10 PLAY "5_3c"
```

This simply combines a crotchet (5) with a quaver (3) to make the note length one and a half beats long.

You can insert a rest using a & symbol. The length of the note is set in the same way as the notes are.

Also, you can change the tempo of your symphony by inserting a T followed by a number in your string. I think the default is 120 (although I can't check this since I don't have access to a 128k manual, sorry).

And finally for SAM owners, you have a six channel stereo sound chip to play with. You can control it with the SOUND command, which is followed by two parameters which communicate to the sound registers. The register to which you are talking to goes first, followed by the data being given to the register. You are communicating directly to the sound chip so it is very technical and anyone brave enough to try should consult the technical manual (then write an article for Format to explain it!). However, you are not limited to the BEEP command yet, so all is not lost. If you want to produce decent music on your SAM you should buy either the Sound Machine or E Tracker. E Tracker is superior so naturally I have Sound Machine. These programs make composing and entering music much easier and you can play the music in your Basic programs under interrupt control (so that your Basic program still runs while the music plays). It is all explained in the manuals, so all I will say is that if you want music in your SAM Basic programs then get one of these, Now.

Bye bye for now.

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Hunting the WUMPUS



By:- Frank Evans.

In response to your frequent pleas for listings, I would like to present 'Hunting the Wumpus'. A small game that I first found in 'The First Book Of KIM' by Jim Butterfield, Stan Ockers and Eric Renke. It was, I understand, developed from a game by Gregory Yob in 'The Best Of Creative Computing'.

My version of the program is written in SAM Basic but could be converted to Spectrum Basic quite easily by changing the procedures into subroutines called by GOSUB.

The Wumpus, a nasty creature, lives in a series of connected caves. There is also a bottomless pit, and two Yuks. Should you tread on a Yuk, you will be hurled into another cave. Bumping into the Wumpus or falling into the pit is instant death.

However you have a Cream Bun, if you throw the bun to the Wumpus you will win the game. Should you miss then you are dead.

This program can be developed with graphics and sound. More hazards and rewards added, even a new storyline.

The C\$ can be divided into 20 segments of 4. The first letter is the current location. The next three letters are the connected caves and are found by the string slicing in lines 210, 220 and 230.

10 REM HUNTING THE WUMPUS
20 REM From THE FIRST BOOK OF
KIM. by Jim Butterfield, S
tan Ockers, Eric Renke

```
30 REM Based on a game by Gre
gory Yob in the Best of Cr
eative Computing.
40 REM SAM BASIC adaptation b
y Frank Evans
50 POKE SVAR 618,8: MODE 4
60 LET c$="ABEFBACNCBDLDCEJEA
DHFAGOGFHQHEGIIHJRJDIKKJLS
LCKMMLNONBMOOFNPPNQGGPRRI
QSSKRTTMS"
70 place
80 play
90 INPUT "Another game?(Y/N)
";q$
100 IF q$="Y" THEN GOTO 70
110 STOP
120 DEF PROC place
130 LET wumpus=RND(19)+1
140 LET yuk1=RND(19)+1: IF yuk
1=wumpus THEN GOTO 130
150 LET yuk2=RND(19)+1: IF yuk
2=wumpus OR yuk2=yuk1 THEN
GOTO 130
160 LET bp=RND(19)+1: IF bp=wu
mpus OR bp=yuk1 OR bp=yuk2
THEN GOTO 130
170 LET mug=RND(19)+1: IF mug=
wumpus OR mug=yuk1 OR mug=
yuk2 OR mug=bp THEN GOTO 1
30
180 END PROC
190 DEF PROC play
200 CLS
210 LET t1=CODE c$((mug*4)-2)-
64
220 LET t2=CODE c$((mug*4)-1)-
64
230 LET t3=CODE c$(mug*4)-64
240 PRINT "You are in cave ";m
ug
250 PRINT "Tunnels lead to cav
es. ";t1;";";t2;";";t3
260 IF wumpus=t1 OR wumpus=t2
OR t3=wumpus THEN PRINT :
PRINT "The WUMPUS is near
by."
270 IF yuk1=t1 OR yuk1=t2 OR y
uk1=t3 THEN PRINT : PRINT
"Watch out for YUKS!!!"
```



```

280 IF yuk2=t1 OR yuk2=t2 OR y
uk2=t3 THEN PRINT : PRINT
"Watch out for YUKS!!!"
290 IF bp=t1 OR bp=t2 OR bp=t3
THEN PRINT : PRINT "DANGE
R BOTTOMLESS PIT!!"
300 INPUT "Enter 0 to throw cr
eam bun or choose a cave
number. ";q
310 IF q<0 AND q<t1 AND q<t
2 AND q<t3 THEN GOTO 300
320 IF q=0 THEN bun: GOTO 370
330 IF q=yuk1 OR q=yuk2 THEN y
uk: GOTO 200
340 IF q=bp THEN bp: END PROC
350 IF q=wumpus THEN bump: END
PROC
360 LET mug=q: GOTO 200
370 END PROC
380 DEF PROC bun
390 INPUT "Into which cave? ";
q
400 IF q=wumpus THEN PRINT : P
RINT "You have found and p
acified the WUMPUS. You wi
n!!!"
410 IF q<wumpus THEN PRINT :

```

```

PRINT " You missed and t
he WUMPUS in cave ";wumpus
;" eats you. You are DEAD.
"
420 END PROC
430 DEF PROC bp
440 PRINT : PRINT "You fell in
to a bottomless pit. You a
re dead."
450 PAUSE 100
460 END PROC
470 DEF PROC bump
480 PRINT : PRINT "You have bu
mped into the WUMPUS. You
are now history."
490 END PROC
500 DEF PROC yuk
510 PRINT : PRINT "You fool. Y
ou trod on a YUK. You w
ill now be hurled into a
different cave."
520 LET mug=RND(19)+1
530 IF mug=yuk1 OR mug=yuk2 OR
mug=wumpus OR mug=bp THEN
GOTO 520
540 PAUSE 100
550 END PROC

```



YOUR LETTERS

Dear Editor,

I have owned the SAM Coupé now for three years, and during that time I have been waiting for him to GROW UP.

As I do not play games, I need a computer that works fast in matters of Amateur Radio, Astronomy, and Video Enhancement.

This the SAM will not do so I have been P/Ced with a 486DX2 66 Meggasquirts. So this will mean that I will not be renewing my membership.

Pity that the SAM is not 16 or 32 bit then with program all P/Cs will be there.

PS. SAMs gone for scrap.

Yours Sincerely, James Reed.

Well, if you have over a thousand pounds to spend on a machine (and about as much again to spend on software) then the machine you have gone for is not a bad choice. But, for those of us in the real world, a SAM (or a Spectrum for that matter) is just as usable and far more programmable than a 486. There are many people using Spectrums and SAMs for amateur radio applications and alot of programs have been published in the past for astronomers. OK, video enhancement is lacking - but for that you need an Amiga, not a 486. As to SAM needing 16 or 32 bits, that is like saying all cars need a V12 engine, SAM has its place *because* it uses the Z80.

And why scrap a computer? Especially one that you could have sold for a better price, relative to its age and original purchase price, than you will ever get for an IBM compatible when you come to sell that in a few years. *Ed.*

Dear Editor,

In renewing my subscription to **FORMAT**, may I congratulate you and your team for the high standard you continue to maintain in **FORMAT**, and not least to Jon for his brilliant cartoons.

So far as your questionnaire on the three most enjoyed and least enjoyed articles is concerned, I find that most of the articles, except games, are of some interest. They may not have any immediate relevant use, but months or even years later, can be of enormous help in solving specific problems. I spend many hours in the park during the summer months reading all my back issues of **FORMAT**. There is always something more to learn.

Topics that I should like to see covered in future issues are any items relating to the DISCiPLE, Tasword and Printers, and in particular, Bit-Image Graphics, which is a very grey area I can never fathom out from the printer manuals.

I was about to order Vol. 1 of **FORMAT**, but I understand this is no longer available. Would it therefore be possible to reprint any items of particular interest in forthcoming issues of **FORMAT**?

Keep up the good work.

Yours Sincerely, K.H.Powley.

Thank you for your kind comments, but don't dismiss games - there is much enjoyment to be had from playing computer games and even more fun in programming them.

We did warn people well in advance that we were taking volume one and two of **FORMAT** out of print (cos we just

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don't have the space to store them any more. However, we are considering bringing a selection of the articles together in a 'Best Of' book sometime in 1995. There is still enough new stuff to keep **FORMAT** going so we can't spare the space to reprint any of the old articles in the monthly issues, and if you think about it, it would not be fair to readers who already own the early copies. **Ed.**

Dear Editor,

There are a couple of questions I would like to ask:-

1. Has anyone any experience of using the Spectrum +3 with a camcorder video camera for the purposes of filming colour graphics and titles generated on the computer to video film. I am given to understand that the Amiga computer is able to do this.

2. Has anyone experience on using Rams 4 in which the Spectrum can be connected to radio scanner to receive pictures etc., from satellites. I believe publishing articles on these sorts of activities could help members to discover new areas for use with the Spectrum.

Yours Sincerely, David Studholme.

There are a couple of video titling programs produced for the Spectrum which I have seen advertised in the video magazines - but you could do everything from Basic. The only problem you may find is that the +3 UHF output may produce some interference unless you tune the camera's output away from channel 36.

Anyone help David on the satellite picture front? We will pass on any letters you send. **Ed.**

Dear Editor,

I have subscribed to your magazine for over a year now and hope to continue to do so for some time. Any news of a games related mag would be welcomed.

One of the reasons I am writing is a

plea for help on Bloodwych - how do you finish the second part? We have cleared every part but have found no use for the tam gem and the blue gem other than to teleport into a room with a friendly man in it.

Another reason I am writing is can I advertise any games I have written on the SAM in your 'small ads' section. They are original, having written them myself! Please reply as this has been bothering me for some time now.

I have a neat trick for anyone still using Flash! out there. Problems are gained when you load a SCREEN\$ file and not a Flash! file. Simply use the joy-stick to reselect controls and then click on OK. Then select Mode 4 (how it does this is beyond me). Your screen will go blank but don't fear - simply click on UNDO and then OK again. Your screen is loaded into Flash!! and all is OK.

Yours Sincerely, Peter King.

Never played Bloodwych, but I'm sure someone out there will leap to your aid Peter. As to your games, I would allow one advert in the small ads section, thereafter you would need to advertise commercially with a quarter-page advert (or bigger if your games start selling well). **Ed.**

Dear Editor,

Congratulations on another successful Gloucester show. I've been to all three now and can't wait for the next.

It is so nice to see so many Spectrum and SAM enthusiasts in one place at one time and to meet so many of the nice people who make our hobby so enjoyable.

My one criticism? Why not every three months instead of every six? I for one would travel to Gloucester every month just for the chance of talking to so many people who share my interest.

My thanks for all your hard work.

Yours sincerely, Paul Masters.

The shows do take a lot of organizing

Paul, and I must admit I have to give Jenny time off after each one to recover her strength (before we start tidying the office). But we do love to see everybody.

One idea I have been planning is to organize a local computer club, meeting once a month here in Gloucester, and with its meeting dates and times published so anyone from a greater distance who just happens to be passing can drop in. Anyone interested drop me a line and, if there are more than a handful, I will look round for a suitable place to meet.

I know there are already a couple of groups that get together (Ashford being the biggest I think) so if people would like to drop me a line I will publish details of local group meetings so you can attract more people. **Ed.**

Dear Editor,

That computer show, on the 22nd of October was a complete load of rubbish! It was an utter rip-off!

It takes five hours to get from where I live to Gloucester by train and over £30 for the train ticket. But I thought it would be worth it to see a Spectrum and SAM computer show.

But when I arrived it was a complete disappointment. There was nothing at all for the Spectrum apart from a few second-hand games. The main reason I went was for Spectrum hardware, such as a new disc drive, but there wasn't any hardware at all for the Spectrum!

I then decided to buy a few games for my SAM Coupé. I went to the Fred stand and asked if he had Lemmings on tape. He looked at me as if I was some kind of mental person. He said you can't get SAM games on tape. Well why not! I haven't got any disc drives on my SAM so I use tape. Why can't I buy games for it on tape?

I didn't stay there for more than an hour and all I bought was a packet of 3 inch discs and a few Microdrive

cartridges.

You should rename the show 'The SAM disc only user show'.

PS This letter was printed using Tasword on a Spectrum+3 NOT a SAM Coupé.

Yours Sincerely, Ray Johnson.

Did you go to the same show as the rest of us Ray? There were at least three stands selling Spectrum games (on tape) and S.D. Software launched their new Midi Sequencing program (on disc).

Yes, there was no SAM tape software, there has not been for over three years to the best of my knowledge. Companies stopped doing it because tape users dwindled to such a small number that it was no longer commercially viable to produce tapes. I can't understand why you were so surprised not to be able to buy SAM tapes.

Since 1987 the move has been towards disc on the Spectrum. Disc has always dominated the SAM market - loading 256K games from tape took so long that a disc drive was the first purchase an early SAM user made if he did not buy it with his Coupé **Ed.**

Dear Editor,

The standard of English in **FORMAT** in places is appalling! Surely you could re-write some of the letters to include capital letters? And you should know its disk, short for 'diskette' not disc! Also, 'thank you' and 'on to' are phrases of two words!

I would like to see Games in future issues of **FORMAT**, when you switched over to full DTP, you said you'd be able to manage a few more pages. I'm sure no-one would object if you slipped the odd review tips section in - much more practical than starting up a whole new magazine from scratch!!

Yours Sincerely, Mark Sturdy.

First, we try not to edit letters too much, we like people to say things in

their own words.

Secondly, while not claiming to be perfect, we have had many letters congratulating us on our clear use of English. To take one of your examples 'onto' and 'on to' have two different meanings. 'On to' is used when the meaning of the two words is separate, i.e. when 'on' is a full adverb (expressing movement), so that *verb + on* has an independent force from *to + noun/pronoun*. 'Thank you' and 'thankyou' are equally valid, although you could choose which you use because they provide a slightly different emphasis to each other.

As to disc, that 'every perennial' cause of conflict again. In English, the word is DISC, it describes the round plate (disc) of material onto which data is written. The plastic cover is, correctly, termed a 'diskette'. However, **FORMAT** adopted DISC for two reasons, first we are an English magazine, and secondly because the product the user group INDUG was formed to support - the MGT DISCIPLE - also used the same spelling.

And yes, I would like to expand **FORMAT** the trouble is that costs are against us. To print a bigger issue costs more, but the big increase is in the cost of postage - an extra 10p per copy if we added just a few extra pages. Sorry, but unless you do your bit in helping to expand **FORMAT** readership we seem to be stuck at 40 pages as a maximum. **Ed.**

I don't know about our English being appalling but your handwriting leaves a lot to be desired. It took me ages to decipher what you had written in your notes as I typed them in.

Added to that, you didn't put your membership number on the renewal notice. So, when I had the time, I started a search through the database to find you, using your postcode as a search key. I couldn't find it.

Your renewal had to go into our hold-back file until, fortunately, you telephoned to say that you had received

another renewal notice with your November issue, at which time you I was able to get your membership number from you.

Why had I not been able to find you on our database? Because, again, I couldn't read your handwriting and so tapped in a wrong letter in your postcode.

So there! stick that in your pipe and smoke it! **Jenny.**

Oh Boy! Sorry gentle readers, but I had to let Jenny have her say as well.

But please, everyone, if you do handwrite letters or forms, print clearly so there can be no mistakes. **Bob.**

Dear Editor,

Thought I'd write you a short note about the Gloucester Gathering. Yes I know it was a few weeks ago now, but I've only just remembered a thought that struck me whilst I was there, more of that in a moment.

It was the first of these events that I'd attended and, I have to say, it seemed an awful long way to go (to Gloucester) though I realise from listening to people chatting away there that I hadn't travelled as far as some people. [You can say that again Matthew, we had people come all the way from The Netherlands and even I had to travel all of half a mile to get there.]

I was surprised how few people were there, but on reflection I guess many people visited throughout the day, but (like me) didn't stay for more than a few hours. It would be interesting to know how many people did attend.

It was really good to see so many organisations producing good new software for the Spectrum/SAM but, having finally finished reading the three volumes of **FORMAT** back issues I bought on the day I am struck by the lack of new hardware for the SAM. Whatever happened to the digitiser and sampler that you used to be able to get?

On to my suggestion then.

Having spent a lot of money just to get to Gloucester I soon found on the day that I'd run out of money. Unfortunately, (and inevitably) there were still things I wanted to buy, but I reasoned that I'd have to add them to my growing list of things to acquire as funds allow.

Unfortunately, I do not know how to contact some of the organizations represented at the show, so (fanfare) why don't you produce an exhibitors directory for these gatherings in future so that visitors (like myself) will know - a) who these people actually are and b) how to get in touch with them after the event.

Well that's about all for now, except to say thank you for organising the event, I don't know how regularly I'll be able to attend in future but I shall try to get to any future gatherings as often as possible. It was worth it just to meet you all at last (having spoken on the phone so many times).

Yours Sincerely, Matthew Gallagher.

Thanks for coming Matthew, it was nice to meet you on the day. Yes, attendance was a down on the first two shows but that was due to the terrible weather forecasts the day before. I'm booking good weather for the next one.

Most of the exhibitors advertise in **FORMAT**. We did consider a show guide for the first show but decided that until we start filling a bigger hall it was not worth it.

And why not cut down on the cost of getting to Gloucester by contacting a few people in your area and arranging to share transport. **Ed.**

Dear Editor,

Thank you. I have recently received my first copy of **FORMAT** now that I am a full member of INDUG. The day after I sent my subscription of £12 my Associate News arrived in which you offered me a reduced subscription rate of £10, does this now mean that I am £2 in

credit?

I, like Alan Sharvell (letters **FORMAT** Vol 8 No 2) have inherited my Spectrums (two ZX+2 (grey case)), one connected to PLUS D the other to a ZX Interface One and Microdrives), from my grandchildren and am still only a novice at this computing fame, learning all the time from colleagues and of course **FORMAT**, my main usage is with Tasword and PROTTLER for producing titles for my family home video's.

Please may I ask a couple or so questions? Is it possible to connect an additional interface to the PLUS D so as to use the mouse (with OCP Art-Studio) and other peripherals, would the West Coast W1109 TWO^{UP} achieve this, if not I wonder what, and from whom? What is required to connect my two Spectrums and my Panasonic KX-P1180 printer to allow each to operate independently to the one printer? Is it possible to transfer my Tasword Plus Two, Tas-Sign and Art Studio from cassette to disc, to operate with the PLUS D? Can you let me know what software/items you have available for Spectrum/PLUS D with prices, especially Utility Disc #1, and let me know what the programmes do?

I too have had dealings with J & P Electronics of Kidderminster for a Spectrum repair, I found them most helpful, very competitive, no fixed price repairs, charges based on work required, a free quotation can be obtained prior to any work and a very speedy service (in workshop on Friday, completed and out on the following Monday). I have no other connection with this company other than a satisfied customer, I also think an advert from them would certainly benefit members.

Finally, (and thank goodness he says!) I unfortunately could not attend your 3rd show, but do not intend to miss the next one, when and where is it please?

Thanking you in anticipation.

Yours Sincerely, Deryck R.J.Morris.

A lot of items for just one letter, but here goes.

The special subscription rate only applied to people who replied to the special offer, sorry, but offers have to have a start and an end somewhere and there is always someone who falls outside the scope of the offer.

The TWO^{UP} is for the SAM, what you need is one of the Currah Micro-Slots, a hard Y connector. Try B.G.Services, they may be able to sell you one. Whether it will allow any particular piece of hardware to work with the PLUS D is another question. Some items will, some will not.

TW+2 and the 48K version of Art Studio can be converted using the software we sell. Each conversion program costs £4.50 including P&P and is supplied on tape for use with DISCIPLE or PLUS D disc systems. TAS-SIGN can be converted by following the instructions in its manual for conversion to Microdrive.

Our Utility disc was reviewed in **FORMAT** volume 5 issue 12 if you want to read up on it.

The next Gloucester show will be in April (or possibly early May) and will be at the usual venue. **Ed.**

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

This is YOUR letters page so it is up to you to fill it with interesting things. Come on, get writing, any subject even remotely related to computers. Just keep things as short as you can so we can fit in as many as possible each month. Please write clearly or type your letters. Send them to the address on page 3 or fax them to us on 0452 380890.



Continued from page 19.

1. If you don't wish to page-in the PLUS D ROM then Command Code 57 can be used to print a character held in the A register via the RST8 instruction (note: the HL,BC & DE registers should be saved before making such a call).

2. If the PLUS D ROM is paged in then characters held in the A register can be printed by CALL 3594 which is the PLUS D print sub-routine.

That is all for this month. Please keep sending in your problems/answers to the following addresses:-

Anything SAM or General Purpose:-

Ray Bray (Format Help Page),
Spring Cottage, Bourne Close,
Porton, Salisbury, Wilts, SP4 0LL.

Anything +3, CP/M:-

Mike Atkins (Format Help Page),
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