

# **SAM** *Community*

Issue 4

May/June 2000



**Death to the floppy  
disk...**

**...it's the Atom  
HD interface  
special issue!**



**Also inside...**

**Using Masterbasic with BDOS - article and program**

**Updated Chrome information**

**Also...Bunnik 2000, History of Bennett Electronics, Strato HD...**

# Contents

- **Page 3** - Editorial
- **Page 4,5,6,7,8** - News (new BDOS, SAM/PC utilities...)
- **Page 9,10** - Bunnik 2000 Show report
- **Page 11,12,13** - MasterBasic for BDOS - article/program
- **Page 13** - S.O.S. - SAM support from Geoff Bridges
- **Page 14,15** - Review - Atom - SAM's hard drive interface
- **Page 16** - Review - Stratosphere Hard Drive update
- **Page 17** - Review - Soundbyte 45 - Music Quiz 2
- **Page 18,19** - Chrome Update - the SAM-3D stunner
- **Page 19** - Millennium Poll - from the SAM-Users mailing list
- **Page 20,21** - A Short History of Bennett Electronics
- **Page 22** - Letters
- **Page 23** - Contacts
- **Page 24** - Coding Challenge, Top 5, Next Issue

**SAM Community is printed 6 times a year (or at least that's the idea!) It is available throughout the world to anyone who owns a SAM Coupé, or to anyone who is interested in, well let's just say, alternative computing. To subscribe for a year, simply send a cheque, postal order or cash (all Sterling only!), for £5 (UK and R.O.I. readers) and £8 for International readers.**

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**Please state which issue you want your subscription to start from and make cheques payable to Gavin Smith, NOT SAM Community!**

**Editor - Gavin Smith, Article and S.O.S. - Geoff Bridges, Show report - Wolfgang Haller, History Article - Len Bennett. Thanks to Colin Piggot, Andrew Collier, Ivan Betts, Ron Deeks, Johnna Teare and Dave Fountain.**

# Editorial



Ahh, you thought SC had disappeared didn't you! No, again we're just late for work related reasons but (and I'm going to regret this), I promise you will have issue 5 (the July/August issue) on time, on the 11th of July or sooner (Royal Mail permitting) or I'll wax my legs and photograph it for when issue 5 does finally come out! That's a definite promise! (That should get me fairly motivated...)

This issue we have Geoff Bridges joining us as our resident support bloke. If you have any SAM related problems, get in touch with him - see page 13 for details. He's keen to help and he knows his stuff.

This issue actually had to be squeezed into the 24 pages. In the process, I have had to leave out the SCFL updates and one or two other bits and pieces I had planned, so expect to see issue 5 with a whopping 28 pages. Of course, if we're going to keep up with the 28 pages, we need your help. Articles on any subject (for example, tell us a bit about how you use your SAM and how you got started on it) or even letters are very much appreciated as they keep the magazine interesting and me motivated.

Speaking of SCFL, it's one area of SAM Community that is far behind what I want it to be - and my plans for it have grown. I hope it will turn into the best source of software for the SAM, whether PD, shareware or even commercial (depending on the author's wishes). SCFL updates may turn out to be too large to fit into each issue, so some kind of supplement catalogue on paper or disk, may need to be produced. In the meantime, you can still order any of the bits and pieces from the previous issues of SC.

With an article by Len Bennett, Quazar announcing Stratosphere HD, a MasterBasic/BDOS article from Geoff Bridges, and a review of the system itself, this issue has turned into a bit of an Atom special. It's a great piece of hardware, so have a think about it. See you next issue!

**Gavin**

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# News

## PC Utilities

Edwin Blink has been hard at work as usual, and since the last issue he has released two new applications for use on your Windows PC. The first one is the "SAM Coupé Screen Viewer" and as the name suggests, allows you to view any SAM screen files on your PC. It's already been through several revisions, and is now at version 1.26 which supports Windows 98. Probably more importantly is his second application, the "SAM Coupé Diskimage Manager" which, as the name cunningly suggests, allows you to play around with disk images on your PC. You can see Blinky's website by visiting:

[http://home.wanadoo.nl/blink/samcoup\\_e/](http://home.wanadoo.nl/blink/samcoup_e/)

## B-DOS 17i

Martijn Groen continues to work on B-DOS and released version 1.7i on the 4th of June. I haven't had a chance to play around with it yet, and the document doesn't tell you what's new - Martijn, will you include a Version History document in future pleasey weasy? You can download the latest B-DOS from Blinky's website (see above) or get it from the SCFL.

## 250 Pints

Lunacy continues to abound on the Internet. ZX80s are looking a little rare these days, and are fetching daft prices in online auctions, such as eBay. In April,

a ZX80 was sold for an incredible £560. Hang on, didn't we used to be able to pick these up for 50p from car boot sales? So if you have one stashed away, get it out and stick it up for sale at:

<http://www.ebay.co.uk>

## New SAM and PC CD Mag!

David Brant has been working on a new CD mag for the last few months. The first issue is due around about now and features programs, news and reviews. It is not clear what way the mag will work: it may be a PC executable or perhaps the mag will be made up of files to load into your SAM emulator. You can get more info from David if you email him at [stoneddesign@btinternet.com](mailto:stoneddesign@btinternet.com) or visit his website.

<http://www.stoneddesign.co.uk/>

## PC keyboard interface

Hardware wizard bloke, Andrew Gale has finished his design for an interface to allow your dear old SAM to use PC keyboards. This could come in handy as the supply of SAM keyboards dries up. "The interface I've got is designed to be internal - that is, it needs soldering inside the SAM. The reason I went for this option is that it only needs about half the number of chips as an external version, a smaller PCB, and it

seemed a nice and neat solution - it doesn't require a precious spare expansion slot. However, it means that a bit of soldering is needed - there is one 9-way ribbon cable and one 8-way ribbon cable that need soldering to the SAM's motherboard keyboard connectors."

We'll have more information next month and possibly a circuit diagram for you to build your own. In the meantime you can take a look at Andrew's website where he has posted an early version of the circuit diagram but warns you not to build it just yet!

<http://www.ee.surrey.ac.uk/Personal/A.Gale/sam/>

## Atom support for Stratosphere

Colin Piggot has updated Stratosphere to support the Atom! From now on, Stratosphere comes in a 5 disk pack, the extra disk being an installer and boot disk. Existing users can receive the boot disk by simply sending 3 stamps to Colin at his new address (see below) or you can buy the newly updated Stratosphere for a special price of £14.99 until the 10th of June. See the review elsewhere this issue.

If this proves popular, Colin has said he will adapt his other multi-disk games (such as the huge platformer, Money Bags 2) to work with the Atom.

## Quazar's new address

Colin has finished moving house and has gone across the border into England. His new permanent address is:

Colin Piggot (Quazar)  
16 Belcanto Court  
Wygate Park  
Spalding  
Lincs  
PE11 3FS

Tel: 07967 118132

If you want a full information pack on all his hardware and software for the SAM then just drop him a line. He also wants me to thank those of you who got in touch, wishing him good luck with the development of Chromé (as previewed last issue - see the update this issue).

## Total Immersion Sound Worlds

Yet more Quazar news! Colin has been rewriting and improving his routines for using the full surround sound capabilities of the Quazar Surround soundcard. New effects include distance fading, to make things fade realistically as they get further away from you, as well as object occlusion where sounds become muffled if they appear to be coming from behind a wall or other object.

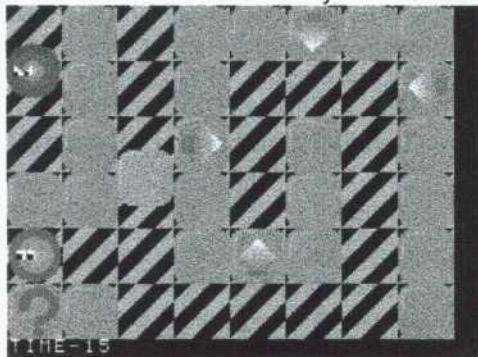
Colin has written an article on the new Total Immersion Sound Worlds - see it in this issue of Sam Community. The first demos that use TISW have appeared recently on issue 59 of Soundbyte, and they sound superb!

## Soundbyte update

I'm beginning to think Colin's social life is as bad as mine. Soundbyte, the monthly support disk for the Quazar Surround is still appearing regularly - here's a rundown of the last few issues.

### Issue 56

Feature Program: BLOKKER - the full Quazar Surround enhanced version of a game by Mungus Software. Arcade game where you have to banish the Oddball intruders from your castle.



Also on this issue: ROCK ME ARMADEUS - another music track for Disco Madness from issue 53.

### Issue 57

Feature Program: IF I WAS PERFECT - a music demo using sample compression and a high playback rate - a reader contribution.

Also on this issue: DANCE TRAX - randomly sequenced dance music

### Issue 58

Feature Program: SWEEPING ADPCM - a music demo which uses stereo sweeping affects apon playback.

Also on this issue: NUCLEAR - a game

zone for 'Super Byke Championship'

### Issue 59

Feature Program: TOTAL IMMERSION SOUND WORLDS DEMOS

New surround sound programs with effects such as distance fading and object occlusion. See the article in the next issue for more information.

Also on this issue: DISCO DUCK - more music for Disco Madness.

### Issue 60

Feature program: DISCO MADNESS TRACK PLAYER - a small program to play the music tracks for disco madness on their own, instead of having to play the game.

Also on this issue: SLAM FUNK MOOG - a piece of music written with Quazar Sequencer Pro. (A music sequencing program from Quazar) And: LOVE TRAIN - part of the music video of the song 'Love Train' by Holly Johnston. Made using Quazar Video Construction Kit 2 (a utility from Quazar to make video files - like AVIs etc on a PC).

Soundbyte is released monthly from Quazar, priced at £2 per issue (or £5 for 3 issues, and £18 for 12 issues) for both subscriptions and back issues.

Colin has also said what he is planning for the next few issues of Soundbyte. There's a huge music compilation demo in the works as well as more games and demos using Total Immersion Sound Worlds.

## SAM DemoBase Updated

"...the SAM DemoBase - a project to catalogue and screenshot every SAM demo in existence!" An excellent webpage by Andrew Collier (of Mnemotech fame) which you should take a look at if you're at all interested in SAM demos - recently updated too.

<http://mnemotech.ucam.org/demobase.html>

## Spend some money!

In the final Quazar related news item of this issue, Colin has announced some very special offers. I've already mentioned that Stratosphere has been reduced to £14.99 (3 quid off) but an even better offer is a Quazar Surround/Stratosphere pack. For £60 (a saving of nearly 12 quid) you get the excellent soundcard and Stratosphere (still the best game ever on the SAM). You can also buy the soundcard separately, also at a special offer of £49.99 - it comes with introductory disks, a back issue of Soundbyte, and a 3 issue subscription to Soundbyte. Note that these special offers are only available to SAM Community readers (you lot!) and only until the 20th of June so write the cheque now before you forget! (I'm not on commission by the way, honest...)

## SAM Users online

The SAM email list on the Net continues to be popular. At the time of writing, it has 80 subscribers so if you've recently got on the Net, join up and tell them that SC sent you!

## TCP/IP for SAM?

Last issue, I begged for someone to have a go at implementing TCP/IP on the SAM. If we get TCP/IP on the SAM, it is a (relatively) short step to getting email, FTP and IRC clients on the SAM - possibly even a text Web browser. Despite being busy on his SAM utilities for PC (see elsewhere in the News), Edwin Blink has found time to work on TCP/IP. A quick note from him says that "last thing I made was a 57600 bps interrupt driven link using the COMMS interface and a simple terminal program in BASIC...I'll be programming on SAM again now that the Screenviewer is in a good working state). Blimey! This is great news and I'll be pestering Edwin for more updates next issue. Anyone for online multi-player Chrome?!

## Polish ZX Party

Worth mentioning, as we are now getting readers from outside the UK - there is a gathering (mainly for ZX Spectrum owners but I'm sure they'd love someone to bring along a SAM) from the 25th to the 27th of August. Get more information at: <http://www.virtual.wroc.pl/retro/zx/>

## Scum!

Our traditional enemies, those nasty C64 owners have something to shout about at last. It seems there is going to be something of a rebirth of the C64 - sort of. It's rather hard to figure it out just at the moment but it seems as if

some strange Dutch company have decided to relaunch a kind of C64/PC hybrid, with Internet access built in. Really, you should read the website yourself and see if you can figure out what the hell it is:

<http://www.webcomputers.net/pages/product.htm>

### Steve's Software

I'm currently contacting as many people as possible who once wrote software for the SAM, with a view to making it available in some way again. Much more on this next issue, but the first reply comes from Steve's Software (makes of SC\_Word Pro amongst others) who has hinted that he may make his software

free later in the year!

### Mac Z80

"ZASM is a 2 pass assembler for Zilog's 8-bit CPU Z80 for PowerPC MacOS computers.

It supports all normal opcodes and - hopefully- all illegal opcodes."

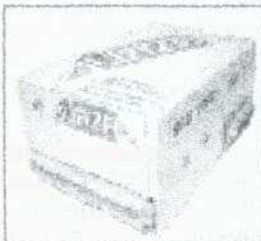
Up to version 2.0.2 Beta, which was released on the 28th of May, the website also contains some minimal documentation.

Aimed at Speccy freaks, it will probably also be of interest to any Mac owning SAM users among us.

<http://little-bat.de/index-prog.html>

*Got any news that might interest us?  
Send it in to the usual address!*

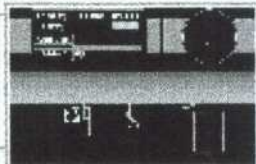
### Just a few of the pieces of hardware and software from Quazar.....



Stunning soundcard which offers a whole new dimension of sound for the Sam, featuring 16 bit sound and full surround sound for a total immersier feeling.



Quoted As The Best Game Ever  
On Sam - need I say more?



*At the moment it has 1000000!*



For a full information pack which covers all the hardware and software from Quazar (two pieces of hardware and 70+ pieces of software), then just send a SAE!



**Colin Piggot,  
16 Belcanto Court,  
Wygate Park,  
Spalding,  
Lines, PE11 3FS**



# BUNNIK PARTY 2000

by Wolfgang Haller aka Wo from WoMo-Team

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Whenever I go to Bunnik I am excited to see what's new. Bunnik, you may remember, is a small Dutch town where Spectrum and SAM enthusiasts (mostly Dutch and German ones) meet from time to time.

Yesterday, amid all the Spectrum lunatics, my attention was on the SAMmers: Robert van der Veeke, Martijn Groen, Edwin Blink, Wilhelm Dikomey and myself.

## SAMVIEWER 1.10

Let's start with a program done by Edwin Blink. SamViewer is a great utility that allows you to open .dsk files on your PC to show all SAM screens within. But that's not all. You can save these screens directly as .bmp if you like, very useful for mag editors (like me). However, you can also work the other way around. If you create SAM readable .bmp on the PC (size and colour) you can put them in a new .dsk file which can later be transferred via SAMDISK to the SAM. Edwin demonstrates this with wonderful pictures from "Star Wars Episode one" and I hope, he will put this on his very new Website in the net to show to all who are interested. *[He has! Gavin]*

## PC mouse on Comms Interface

Another project done by Edwin shown by the example of playing "Batz'n'Balls" with a (very normal) PC mouse. Edwin states that it works fine with the program he made and that the mouse runs under interrupt in the same way the keyboard press will be asked. I hope to get more details on this soon.

## SAM Windows

A project in planning is a new WIMP-system for the SAM based on Windows 3.11. So I asked Martijn Groen about its progress.

"Not so much" he replied, but then he loaded up several parts of code. After starting the program, the SAM "counts" its memory and shows what's been used on peripherals such as harddisk, clock and so on. This will be shown by icons.

However, the program is in progress and will not do much more so far. But I know Martijn - it is as usual only a matter of time.

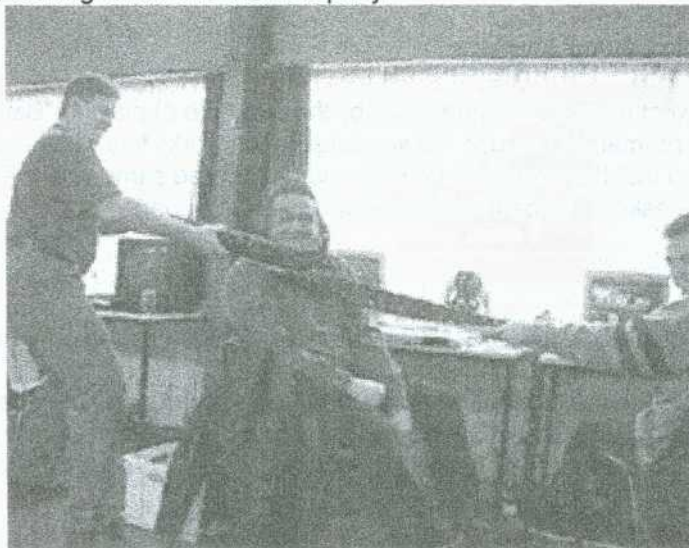
## VIDEOPAC EMULATOR

Last but not least Johan Koelman, a Spectrumaniac presents his working version of a Videopac Emulator on the Spectrum. What has this to do with the SAM? Easy - if you use the Spectrum Emulator v3.3 from Martijn. This one allows you to read DD disks from PC with .z80 or .tap files into your Spectrum emulation program. So we tried to do this with the Videopac Emulator. It works so far with some games and with some not. Johan is looking for a solution about this problem, but a pure SAM version of Videopac Emulator is also planned. Some of the original Videopac games should only run on the SAM because of its file-size.

I had a problem with setting my new SAMbus clock which shows me the year 2006 (and I hope it will also do so, when we really have 2006) and sometimes about hours over 40! (A day with 24 hours is enough I think).

I guessed the clock could only be set under MasterBasic, but in a joint effort between Edwin and Martijn, there is now a simple (?) BASIC program which allows you to also set it under B-DOS. A great improvement for all who use a clock and a harddisk and who wants to save their files with a date stamp.

I have enclosed Gavin a picture which shows Edwin, Robert and Martijn doing something strange. However - it shows what kind of fun we have on such meetings. Hope Gavin can use it for the mag. That's my story from yesterday's Bunnik meeting. I wished there could be more SAM visitors from the "island". I am already looking forward to the next party.



*[Don't worry, I have absolutely **no** idea either - Gavin]*

# *MasterBasic* for **BDOS**

by *Geoff Bridges*

As I use, on a regular basis, a number of programs which were written with, or adapted for, the extended commands available in MasterBasic, I needed a way of using these programs with the Atom hard drive. They could have been rewritten, using the standard SAM BASIC commands but as this would have been time consuming I decided to try to use MasterBasic with BDOS. After some investigation I came up with a way of adapting MasterBasic to run with BDOS.

The BASIC program listed below will use a MasterBasic bootable file and convert it to run under BDOS. Type the program in, taking care with the DATA statements, and follow the screen prompts after running it.

```
10 MODE 3: CLEAR 32768
20 PRINT "Insert disk with MasterBasic+dos file in drive 1. Press a key.":
PAUSE
30 DIR 1!: INPUT "Enter name of dos file "; a$
40 LOAD a$ CODE 49225
50 LOAD a$ CODE 81929
60 POKE 32768, MEM$(65536 TO 98303)
70 IF MEM$(&c100 TO &c102) <> "BOO" THEN PRINT a$; " is not a valid DOS
file! Please retry.":
PAUSE 50: GOTO 20
90 PRINT "Modifying code..."
100 POKE &b683, &30
110 POKE &bcb0, &91
120 POKE &bc44, &92
130 POKE &c4c8, &59, &f1, &2a, &f3
140 POKE
&b6cd, &11, &ed, &0e, &21, &d4, &0d, &01, &fd, &e1, &00, &00, &00, &00
150 RESTORE 300
160 FOR x=0 TO 36: READ y: POKE &be0f+x, y: NEXT x
170 FOR x=0 TO &f8: READ y: POKE &c000+x, y: NEXT x
180 PRINT "Code modification completed."
190 INPUT "Enter filename for saved file or RETURN for default (Masterbas) ";
a$
200 IF NOT LEN a$ THEN LET a$="Masterbas"
210 IF LEN a$ > 10 THEN LET a$=a$(TO 10)
220 PRINT "Saving "; a$
230 SAVE a$ CODE 32768, 32767, &c000
```

330 REM CODE block 2

```
340 DATA 243,58,194,91,50,143,192,61,50,135,192,50,31,190,61,79
350 DATA 219,250,71,121,217,33,0,128,17,0,0,1,255,127,246,32
360 DATA 211,250,237,176,195,39,64,219,250,230,31,60,211,251,195,49
370 DATA 128,217,120,211,250,33,0,0,34,226,90,46,73,34,112,91
380 DATA 33,31,81,219,251,230,31,111,45,237,115,249,128,49,0,192
390 DATA 229,205,96,189,225,229,125,61,246,64,211,250,33,225,117,17
400 DATA 0,188,1,175,3,237,176,219,251,230,31,61,50,205,66,175
410 DATA 211,233,195,0,188,79,254,29,40,75,254,128,48,55,254,109
420 DATA 48,4,254,80,48,8,62,28,50,194,91,195,210,74,62,29
430 DATA 24,246,121,254,29,40,239,23,56,236,42,238,74,124,254,5
440 DATA 48,5,125,254,5,56,223,33,0,0,34,238,74,58,64,90
450 DATA 205,90,1,24,209,33,221,128,70,35,190,40,213,16,250,35
460 DATA 190,48,207,24,201,122,254,239,40,13,254,242,40,9,254,207
470 DATA 40,5,33,235,128,24,225,123,33,230,128,24,219,7,159,138
480 DATA 145,146,153,154,155,167,3,142,174,231,255,12,0,47,140,152
490 DATA 153,157,159,179,187,188,191,206,247
500 REM end of data!
```

This program uses a MasterBasic plus DOS (SAMDOS or MASTERDOS) bootable file and converts it into an auto-run code file. Also some code is poked into this file to enable the detection of MasterBasic/BDOS commands and divert operation to the correct routine.

This new file should be loaded after BDOS and before any other programs have been loaded and will initialise MasterBasic. After initialisation the DOS will be set to drive 1, as it does not recognise the hard drive as a valid device. You will have to manually reset to the hard drive (or use a command in the program) if loading from a hard drive RECORD.

The code uses two pages of memory and is located in the two memory pages directly below BDOS.

The program works by trapping the error and hook code calls via the SAM error handler (RST 8) routine and diverting to Bdos if a dos command or to MasterBasic if not a DOS command. This is achieved by altering the DOS page

system variable value as necessary.

Although the DOS section of the MasterBasic file is still present in the file none of these DOS functions are available, ALL DOS functions are handled by BDOS.

All of the MasterBasic commands and features are available, including the editing, line split, line recall etc. features although the REF (reference) program search function will crash the computer at times. I have not been able to find the reason for this yet!

If a MasterBasic+MasterDos file is used the TIME and DATE functions are available (if a clock board is fitted) also the FSTAT, DSTAT, and DIR\$ functions are available BUT ONLY ON DRIVE 1; the hard drive is not recognised!

XVARs can be PEEKed and POKEd as normal but if any permanent changes are required then the computer should be booted with MasterBasic and the changes made as necessary. The MasterBasic file should then be resaved with the SAVE BOOT format and then the altered file should be converted using this program to obtain a useable MasterBasic with the XVARs set.

I used MasterBasic version 1.7 and BDOS version 1.4d for this conversion; later versions of BDOS should work okay as no changes have been made to the BDOS code, although if extra commands or features are added to later versions of BDOS they may not be recognised. I haven't tried any other versions of MasterBasic so I would be grateful if anyone who tries a different version would let me know of any problems, or success!

---

## □ S.O.S! □

As well as the excellent article above, Geoff has kindly offered his expert SAM services should you need them. If you are having a problem with your SAM, whether hardware or programming (or indeed, some software if Geoff has knowledge on the item), Geoff is the man to contact. You can do this by writing, phoning or emailing and his services are free. Geoff will respond to your query directly as soon as possible, and the problem and solution will be printed in the next issue of SC for other readers to learn from. Geoff is providing a great service here, so if you have the need, do get in touch with him.

Geoff Bridges  
55 Merewood Avenue  
Sandhills  
Headington  
Oxford  
OX3 8EG

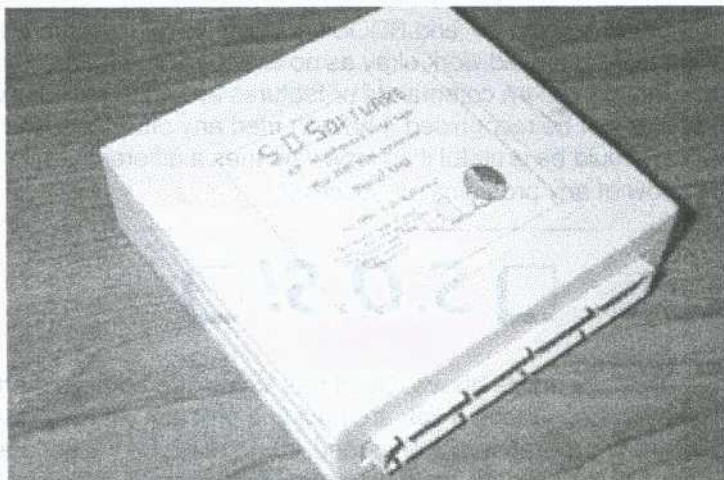
Telephone: 01865 764698 or Email: [bridges@bun.com](mailto:bridges@bun.com)

**PROGRAMMING SOS 13**

## Review - Atom Interface

**Manufactured by: Bennett Electronics Price: £35**

Back in November 1995, SD Software launched the first commercially available hard drive interface for the SAM, cunningly titled the SAM IDE Hard Drive Interface. It cost £60 and required a power supply of its own, for which SD were also selling for an extra, rather extortionate, £25. I eagerly purchased both items, mainly because I knew that SC\_Word Pro was going to support it - any users of floppy disk version of Word Pro will know that the number of disk swaps is torture when printing a document. Unfortunately my interface arrived in a painfully dead condition, and I had to send it back to Nev Young who was true to his word, and replaced it quickly.



*The SD Interface*

I knew that HDOS (the operating system that came with it) was in an unfinished state, but free updates were planned and promised. Sadly it seems Nev took on too much of a challenge - no updates were released as far as I am aware and before long, SD Software was taken over by Format Publications. HDOS remains unfinished and not supported by more than a handful of software products.

Enter the Atom and BDOS...

At only £35, the Atom is a well built little interface. It can be internal (in place of where the second floppy drive would go) or external (plugging into the

expansion port at the back of your SAM, or into a SPS/Two-up etc. The internal version (which uses 2.5" hard drives) doesn't need its own power supply. With the external version that I am using, the hard drive does need power but these can be got cheaply from old PC cases, which is what I did. The Atom happily coexists with all the hardware I have plugged into my SAM (a Quazar Surround, a clock interface and a printer interface, all on an SPS (see Bennett Electronics advert), and a mouse interface). Once the Atom itself is plugged in, it's a simple matter of plugging into the interface, a standard IDE cable which is obviously also connected to the hard drive. In use, the Atom has a useful LED when the hard disk is being written to or read from.

The Atom's operating system is BDOS and takes a different approach to SD's HDOS. When you format a hard drive using BDOS, it divides the hard drive into 800k blocks, called records. Whilst a full review/article on BDOS is outside the scope of this review, it is fair to say that you will find yourself happily at home with it.

In use, a hard drive connected to my SAM has changed the very way I use the machine. No more do I have to dig out a specific floppy disk from my collection, I can now simply turn on the computer and power supply to the SAM, and after booting the BDOS floppy, I have access to the majority of the software I use. Patches are available (although I'm not entirely certain as to the legality of these!) for several applications, including SAM Paint but a lot of software can be simply copied to the hard drive and used without further modification. A few may require some change to the BASIC code and some will not work at all at the moment, because of certain copy protection. However, these are few and far between, and you will find yourself using floppy disks very little, apart from of course the BDOS disk - but you can do away with even that with a ROM replacement but more information on that next issue. A hard drive is of course much faster to access than a floppy disk so you will spend less time twiddling your thumbs, and more time getting on with using your SAM. It is also possible to connect a CD-ROM drive to the Atom, and although not all types are suitable, most produced in the last few years should work fine. I salvaged one from a dead PC, and I can use it to play audio tracks and read PC files from (such as MODs, Spectrum snapshots etc)

An Atom is an excellent addition to any SAM and I can't recommend it enough, especially at this price. If you are good with a soldering iron, it is also possible to build your own - more information next issue! However, for the vast majority of us, a lot of tears and sweat will be saved by purchasing this well made little interface.

## Stratosphere (HD installable)

■ **Published by: Quazar** ■ **Price: £17.99 (or 3 stamps for the HD update for existing owners)** ■ **Atom? Yes**

I don't make it any secret that Stratosphere is my favourite SAM game of all time. But will the Hard Drive installable update create more problems than it solves? Read on!

Stratosphere is one of the best presented games on the SAM, on par with the presentation of such games as Lemmings. Set in cyberspace, you battle it out, level after level in attempt to reach the Dreadnought, the ultimate cybercraft. You control a ship which you can customise in various ways - you can make it move faster for example, but at the expense of firepower. There are numerous different ships, all with their own advantages and disadvantages and all detailed in the manual. You may choose to go straight to them on the attack, or you may decide to play it cool, keeping away from the bad guys and going straight for the flags you need to collect to advance to the next level. It makes for damn addictive gameplay and it's a game that the SAM can be genuinely proud of.



If you already own Stratosphere, you'll already know all this of course and if you've got a hard drive, the next best thing you could do for your SAM is send Quazar 3 measly stamps - in return you'll get the HD installer disk. Bit of a bargain I do believe! You simply won't believe the difference it makes. Games load so much faster with no disk swapping and when you die (as I inevitably do), it's quicker to restart the game which makes Stratosphere EVEN MORE DAMN ADDICTIVE! The single complaint I have with Stratosphere is that the scanner in the top right of the window, doesn't show the edges of the world, so occasionally if you are tracking your progress on the scanner, you can bump into an edge before you realise it. Aside from that, it's near perfection and reason to get an Atom in itself.

Rating: 98%

16 REVIEWS



## Soundbyte 45

■ Published by: Quazar ■ Price: £2 ■ Atom? Yes

Soundbyte is the monthly support disk for owners of the Quazar Surround. It features a variety of items, but every now and then there is an outstanding issue, which is why I chose to review this particular one. It is a 2 disk issue and features Music Quiz 2 and features full speech, sound clips and a number of questions. The idea of the game is to advance up the pyramid and reach the top, advancing a level for each question you get right. On each level, you get to choose a decade, from 60s to 90s. You can play it strategically, and follow a path that will give you the option of answering the most questions from your favourite era, or you can take your chances.



Any negative aspects? Well, you get a set time limit to answer each question, and even if you answer it right away, you still have to wait the full time limit - a little annoying. However, it's colourful, it's lots of fun, it's really rather addictive, it's a special double disk issue and for £2 it comes recommended. Perhaps it's time you spent a couple of quid on your SAM again, you Quazar Surround owners!

Rating: **90%**

# CHROME

## *Progress Report*

Colin Piggot has been his usual busy self these past few months, with Stratosphere HD and Soundbyte, but he has still found time to work on Chrome! The preview last month, was just that - a preview, showing what Colin's plans are for the final game. This time, it's a progress update - showing how the development of the game is coming along.

Colin has been working on an optimised map structure for the storage of the game levels. Into the structure he has been adding support for more atmospheric effects such as flickering lights (with associated sound effects!), sirens, complex lighting such as rotating beacons casting light over walls as well as the odd thunderclap and lightning flash.

The game is still in early development and there's a long way to go but Colin has said he should be able to give more screenshots of the game engine in action in a more advanced state in time for the next issue. Can't wait to see them!



As mentioned last time, there will be expansion packs to add new scenarios to the basic 'deathmatch' style game - such as Night Hunters that was mentioned last time. Colin has given details about two more add on packs, although they are still as yet in the preliminary planning stages until the main game is nearing completion.

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**CATCH THE CHICKEN** - a strange add on, yet strangely amusing. There's a chicken lose! Whoever holds it (either you or one of the three bots) gains points as time ticks by. So to win, you've got to keep hold of the chicken! Shame you can't use weapons when you are carrying the feathery fiend, as the others will be trying to kill you to get their hands on it!

**OBELISK** - a team game ( you and a bot versus a team of two bots). Each team has a base with an obelisk. The mission is to destroy the other team's obelisk whilst defending your own. Do you concentrate on defence or attack? Colin has also come up with the idea of adding some team commands into this so your teammate bot can be asked to do specific tasks - such as defending, hunt enemy bots, or go in for a direct attack against the enemy's obelisk.

## The Millenium Poll Results

Johnna Teare (who you may remember from the SAM2SAM disk mag) recently did a poll on the SAM-Users email list. Here are the (shortered) results!

*Best game* - Prince of Persia  
(with Lemmings and Stratosphere fighting for second place)

*Best application* - SAM  
Paint

*Best hardware* - Atom (just barely beating the Quazar Surround)

*Best paper mag* - Based On An Idea (with my fave YS as runner up)

*Best disk mag* - Fred

*Best demo* - Mnemodemo 2

*Best SAM company* -  
Fred Publishing

# A short history of...

## Bennett Electronics

Bennett Electronics - it may sound impressive to some people and first impressions could be of a company involved in mass production of anything electronic. In fact it has only one member, myself, who can be described as the managing director, chief designer, production engineer, secretary and office cleaner all rolled into one!

When I was a teenager, many years ago, my hobbies then were model aeroplanes and boats. I built a 36" fire tender boat which required radio control, so being interested in building rather than buying ready made, I built a single channel R.C. from a kit. I seem to remember that the second thing I made from a kit was a professional short wave receiver, which shows how confident I had become. Over the next few years I would make handheld games from designs in the electronics magazines, such as tele-tennis, skeet etc., and also test equipment as an aid in television repairs - another facet of electronics I was interested in.

Not being satisfied with the finished item, I would try to redesign the circuit, make it much smaller, and fit it in a smaller, neater case, just like the Japanese were doing with British inventions at that time!

My interest in computers goes back to the days of games consoles in the late 70's. I had been made redundant from my job and had a bit of money to play around with, so I bought a console with a programmable cartridge. With this you could input code and display a very blocky dog on screen which wagged its tail - that was about all it could do. Then came the ZX80. Not having enough cash for a new one, I travelled 30 miles to buy a second hand one which was advertised on the local radio.

The next obvious step was to get a ZX81, but with my interest in building things for myself, I bought the kit. I think the reason I chose Sinclair computers was that to me they were never complete - they all needed improving somehow. The ZX81 was my first real computer project. The motherboard was fitted in a kiddies typewriter case with a Maplin keyboard. Other additions were a graphics ROM which gave a total of 1024 characters, 32K RAM, and sound, all built in.

**20 BENNETT ELECT.**

**BENNETT ELECTRONICS**  
Sam hardware pricelist



External battery backed clock .....	£12.50
Internal battery backed clock .....	£10.50
256k memory upgrade .....	£10.00
Disk protector .....	£6.50
S.P.C.2 .....	£13.50
S.P.C.3 .....	£15.50
( These are expansion boards with 2 or 3 Connectors, plus Power and Sound sockets)	
EDDAC, with power and audio sockets .....	£10.00
Atom H.D.D. interface, internal .....	£35.00
Atom H.D.D. interface, external .....	£35.00
Centronics printer interface .....	£11.50

All items built on printed circuit boards and are uncased except for the EDDAC and the printer interface. Prices include p/p.

A.L. Bennett

Holwell Hyde Farm

Holwell Hyde Lane

Welwyn Garden City

Herts. AL7 4AA Tel. 01707 391543

e-mail [bennett@kilblain.freemove.co.uk](mailto:bennett@kilblain.freemove.co.uk)

For more info related to the Atom and B-dos:-  
[womoteam@t-online.de](mailto:womoteam@t-online.de)

As soon as I had sorted this out along came the Spectrum which had all these features and more, so "Bennett Computers ZX81" was shelved.

The 32K Spectrum was followed by the 128k hooked up to the Opus Discovery disk drive and then came the SAM, bought from a computer shop at a reduced price.

In a way, it was because of the demise of MGT and SAMCo, that made me really concentrate on developing hardware for this machine. Format were the only suppliers of add-ons for the SAM, but at a price! For example, we would have had to pay out £40 for a 256k memory upgrade when you could get a 1meg upgrade for the Amiga for less.

I know these prices have come down a bit over the years, but I really think that the main reason for SAM owners to disown their machines was that they

could not afford to carry on. For the price of a new SAM they could now get a used PC with all the SAM "extras" thrown in. I liked the SAM so much and wanted to see it succeed. The only way I could help this to happen was to produce some hardware at very reasonable prices, even if I wouldn't profit from it financially. I think I have succeeded so far and with the interest shown by magazines such as this one, the future of the SAM is assured. The SAM is dead. Long live the SAM!!

**Len Bennett (Ben)**

***See elsewhere this issue for more information on the Atom and its software, or get in touch with Len - it's a great investment for your SAM.***

# Letters

SAM Community, 34 Craigowen Road,  
Carrickfergus, BT38 7NE.

Dear Gavin,

I am delighted to hear that you are doing your bit to keep the SAM alive. I use a SAM nearly every day mainly for word processing and for one or two other things as well. You may remember I contacted you some years ago when you advertised in Format for a manual on something or other - I don't remember what it was.

I am sending you £5 as a subscription to SAM Community - could you send me issue no.3. You have my brother's name on your list (he lives in Birmingham) and he had showed me the other two issues.

Good wishes in all your efforts,  
Ivan Betts, Belfast

*Yes, I remember our phone chat too Ivan, good to hear from you again. Know any other SAMmers in Northern Ireland?*

Dear Gavin,

Thanks for sending me issue 3 of SAM Community magazine. I was impressed by it and I would like to subscribe for the next year...

I have also, as promised, completed issue 3's coding challenge in one line of SAM Basic. I hope I'm not too late...

Andrew Collier, Bolton

Dear Gavin,

...I have now retired off so can devote a lot more time to my hobbies, hence this letter now...

Well Gavin, I am a very frustrated SAM user, as I used to look forward to my monthly disk mags and the Format mag from Bob Brenchley. I know Bob carried a lot of hardware, but sadly I have not had an answer to my letters? I have another SAM for spare parts, kindly supplied by Dave Tonks. I urgently need another power supply unit for SAM as the one I am using is beginning to overheat so am not sure how much longer it will last. I hope one of your readers will be able to help me out.

Another problem I have is with The Secretary word processor which has a Y2K bug in the programming of the date which it now refuses to recognise! Can anyone tell me how to rectify this fault as it would be nice to have it working properly.

Ron Deeks, Brighton

*Sounds like a nasty bug - please get in touch if you have a fix. I will look into a source of power supplies for you. It's possible to use a PC power supply - an article will appear in the future. If your power supply does fail, get in touch as I have a spare one I could lend you until you get another.*

# Contacts

Bennett Electronics (Large range of quality SAM hardware, including the Atom)  
Holwell Hyde Farm  
Holwell Hyde Lane  
Welwyn Garden City  
Herts  
AL7 4AA  
Tel: 01707 391543

Crashed (Superb SAM and Spec mag, with general mix of news/articles etc)  
11 Camel Road  
Silvertown  
London  
E16 2DE  
Tel: 020 7476 5915

Diaspora Support Disk (Support disk for excellent programming articles in Crashed - more info next issue, along with address)

Geoff Bridges (Generously providing a SAM support service for all your programming, hardware and (in some

cases) software problems)  
55 Merewood Avenue  
Sandhills  
Headington  
Oxford  
OX3 8EG  
Tel: 01865 764698  
Email: bridges@bun.com

Quazar (Games, Utilities, Soundbyte mag, Quazar Surround hardware)  
16 Belcanto Court  
Wygate Park  
Spalding  
Lincs  
PE11 3FS  
Tel: 07967 118132

SPC (Great looking SAM/Spec mag - mainly in German with the odd English article)  
Im Tannenforst 10,  
51069 Koln,  
Germany

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## Write for SAM Community (please)

I enjoy putting together SAM Community - it's hard work but I enjoy it. To keep it fresh and interesting, we really need some regular writers. Regular columns that I'd like to see include -

- ◊ Machine code column
- ◊ BASIC column
- ◊ Hardware projects
- ◊ Info on SAM hardware
- ◊ Reviews (games and applications)

Of course, if you haven't the time for a regular column, one-off articles are just as welcome. They can be on any subject that interests you. If you really can't do any of the above, please do write in with the odd letter with your opinions and views on any subject. Thanks and I look forward to hearing from you!

# Coding Challenge

Last issue I challenged you all to make a Worm game, in the language of your choosing. A simple little challenge, and the entries certainly flooded in. Well one came in anyway. A certain Mr Andrew Chandler sent in an excellent piece of code, which will be available soon from the SCFL. Written in one line of BASIC, it looks and plays extremely well and is certainly a worthy winner of this issue's challenge, despite the lack of competition! Lack of space prevented printing a screenshot - see next issue!

This time, we have what might sound a more complicated challenge at first but is in fact a little easier. April's issue of Crashed has a program listing for a PD Speccy game called Radio Manager - which is a conversion of a C64 game, which in turn was taken from a program listing in a book! Basically it's like a simple football management type game, in which you run your own radio station, choosing your DJs (who have different skill levels and need to be paid of course). You are given a regular update on your audience figures and if you audience drops too low, you're fired. Of course you can expand the idea by showing a competitor's listening figures, by having good/bad publicity in the newspapers, by giving the option to advertise your radio station in various ways etc. This is an ideal game for SAM BASIC, so get coding! Other similar games are Derf (Fred 50), Rock Star Ate My Hamster and Football Manager 1 (both on the Speccy).

Entries on a SAM floppy disk or via email as a .dsk file, by Thursday, 6th of July - you've only a few weeks, so start now! Don't worry too much about presentation here - if we can get the bare bones done, perhaps we can get hold of a graphics artist to clean it up and finish it. (You will of course retain ownership of the code!)

## Top 5 Most Requested SCFL Items

- 1) Defender
- 2) Outwrite 2
- 3) Mork Disk
- 4) Sad Snail Collection
- 5) Lyra 3

## Next issue...

Next issue will be shocking you by arriving on time, on the 11th of July 2000 and may also be growing to 28 pages. It's the Emulator special, in which we tell you how to emulate other machines on your SAM, and also how to emulate your SAM on other machines! Space permitting we should also have a guide to building your own Atom interface and also an article from Quazar on his new surround sound routines. Deadline for news, articles and letters is the **6th of July** so write now before you forget!