



09



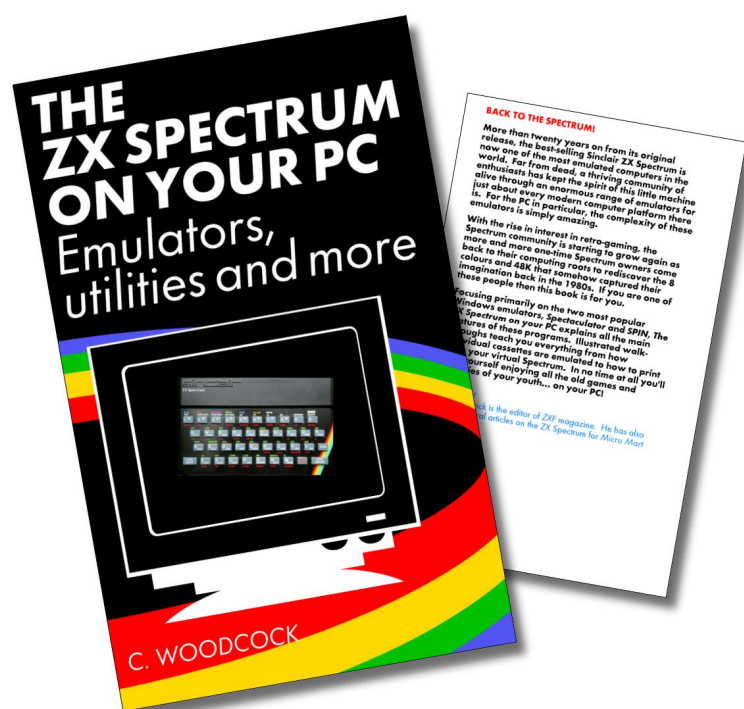
# PLANNING AN ANNIVERSARY?

## Treat yourself to a piece of 21st Century ZX Sp

Will Christmas 2004 mark 20 years for you since that eagerly awaited first ZX Spectrum? Do you remember the anticipation? Do you remember tearing off the wrapping paper? Do you remember promising your parents faithfully that you'd "learn stuff" with the thing

and then skipping straight to 'Thro' the wall' on the *Horizons* cassette?

2004 has seen the most mainstream interest in retro computing ever and the Spectrum is far from absent in this fervour. So why not mark



### The ZX Spectrum on Your PC

*"well-written and superbly presented"*  
- Micro Mart

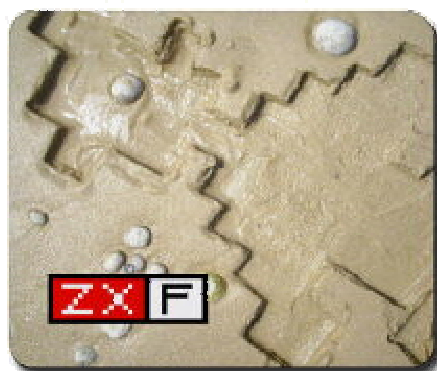
Downloaded over 2,000 times, this guide to Spectrum emulation on the PC is the perfect introduction for ex-Spectrum users returning to their first ever computer. Written by ZXF editor Colin Woodcock, *The ZX Spectrum on Your PC* teaches you how to use modern PC emulators to play all those old favourites, as well as some of the more advanced features on offer too.

78 page paperback \$11.99

### ZXF Mug

Now you too can own a mug to be over-possessive of at the office!

~~\$14.99~~ Now just \$12.99



### ZXF Mousepad

The popular issue 8 Manic Miner cover is now a durable, clothtop mousepad.

\$12.99

[www.cafepress.com/zxf](http://www.cafepress.com/zxf)

# ectrum memorabilia...

your own celebration with a piece of 21st Century Spectrum memorabilia? The ZXF merchandise range has now had a complete overhaul in response to readers' comments and new designs at new prices are just waiting to become the ebay rarities of the future!



**ZXF T-Shirt**

Co-ordinate your Spectrum meets!

~~\$16.99~~ Now just \$10.99



**2005 Wall Calendar**

\$4.99



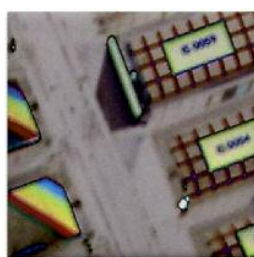
**Long Sleeve T-Shirt**

\$21.99



**Sweatshirt**

\$23.99



**Tile Coaster (ZXF07 cover design)**

The perfect home for your ZXF mug  
(other mugs also compatible).

\$5.99



**Journal (ZXF08 Cover design) \$8.99**

**Currency confusion?** \$1 = £0.60/€0.85 approx (exchange rates can vary) so \$5 = £3.00/€4.25 approx, \$10 = £6.00/€8.50 approx and so on. Please note: ZXF merchandise is provided by [www.cafepress.com](http://www.cafepress.com), an American company, and items sent outside of the US will incur an international shipping fee of \$7.00 (approx £4.20/€6.00) for one item, with additional items charged at \$4.00 (approx £2.40/€3.40) per item thereafter.

[www.cafepress.com/zxf](http://www.cafepress.com/zxf)

## PRICE LIST (prices checked 20 April 2004)



### New:

PC-PSU with supply for 2 Floppies and MB02	36,00 €
MB02-Printerlead	13,00 €
Proface AT Extern (Interface for connecting PC-Keyboards to Spectrum)	69,00 € KS
Proface AT Intern (internal interface)	62,00 € KS
Melodik AY-Soundbox (unboxed)	24,00 € KS
+2 Cassette recorder	36,00 €
Floppy Disc drive (1,86 with MB02, 720k with Opus, 780k with +D) Please specify	24,00 €
PSU for +2A/B and +3 or PSUI for +2 (also 48k and 128k) Please specify	29,00 €
FDD lead for 2 drives	4,00 €
Multiface 128 (works also on 48k Spectrums)	26,00 €
Dust Cover 48k+/128k	8,00 €
Plus 3 Tapelead	9,90 €
Normal Tapelead	3,00 €
Spectrum +2 Lightpen	36,00 €
Spectrum +3 Lightpen	27,00 €
Phaser Gun with Software (Tape or +3)	19,00 €
SCART-Monitor cable (choose for 128k/+2 or +2A/+3)	25,00 €
VGA-BOX (connect Spectrum 128/+2 to VGA monitor)	49,00 €
VGA-BOX Multi purpose (Connect any PC monitor to Spectrum 128/+2)	79,00 €
+3 drive belt	2,00 €
Silver paper for ZX Printer	5,00 €
Keyboard membrane 48k	11,00 €
Keyboard membrane Spectrum +/128k, new quality, not aging	21,00 €
Spectrum keyword stickers	8,00 €

### Used:

Sinclair ZX Spectrum 128k, complete with all cables	129,00 €
Sinclair ZX Spectrum +2, complete with all cables	79,00 €
Sinclair ZX Spectrum +2A, complete with all cables	69,00 €
Sinclair ZX Spectrum +3, built in 3" drive, complete with all cables	99,00 €
Sinclair Spectrum 48k (Gummy), complete with all cables + Introduction Tape	64,00 €
Sinclair Spectrum 48k +, complete with all cables + Introduction Tape	64,00 €
+3 Drive (tested)	29,00 €
Interface I	69,00 €
Microdrive	25,00 €
Wafadrive	39,00 €
Opus Discovery Diskinterface with 1 x 720k Drive (new ROM)	119,00 €
Joystick interface	1-Port 3,00 €      2-Port 11,00 €
Joystick (many different)	2,50 €
Sinclair SJS-Joystick (+2/+3)	6,00 €

### Consumables:

Microdrive Cartridges (ex-software)	3,50 €
Wafadrive Cartridges	16K= 7,00 €,      32K= 7,50 €

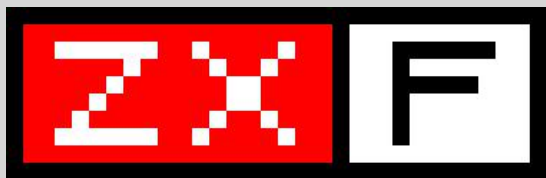
Also we have a lot of Software offers and books. Please contact us and we will send you our pricelist.

Products marked KS are sold in the name of Kompakt Servis. We organise the business.

Prices excluding postage. Delivery as long as stock lasts.

**Orders to: SINTECH, Gastäckerstr. 23, 70794 Filderstadt, Germany**

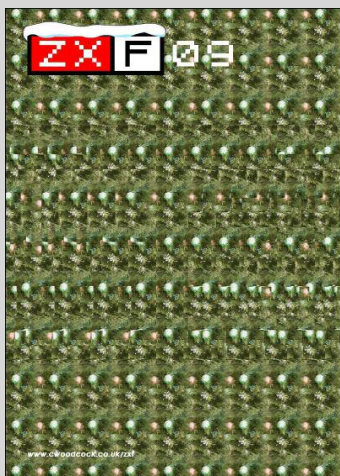
**Tel./Fax: 0049 711 775033 email: [sintech@online.de](mailto:sintech@online.de) <http://www.sintech-shop.de>**



CHRISTMAS 2004 Issue 9

## Contents

<b>new</b>	Sixteen pages of Spectrum news. <b>p8</b>
<b>wibble</b>	Your views and opinions. <b>p24</b>
<b>load</b>	<i>Platform Games Designer</i> and more. <b>p30</b>
<b>ink</b>	A CRASH wordsearch for Christmas day. <b>p34</b>
<b>if</b>	What I want for Christmas... <b>p36</b>
<b>restore</b>	An ailing 128 is brought back to life. <b>p38</b>
<b>exp</b>	Spectrum storage solutions. <b>p40</b> Soundtracker tutorial part two. <b>p42</b> List - it's back! <b>p45</b>



**If you enjoy ZX F** and you want it to continue then consider yourself duty bound to let me know this (mail@cwoodcock.co.uk or by the feedback form). All other feedback will be gratefully received too.

**ZXF has a voluntary purchase scheme.** If you have downloaded and enjoyed an issue of ZX F, and if you are able to afford to, please consider paying £1 for your issue via the Paypal button on at the ZX F website ('magazine' page).

If you would like to contribute to future issues of ZX F - even if it's just to write a letter - **please do**; contact me again by the email address below.

**Editor:** C Woodcock (mail@cwoodcock.co.uk)

**Website:** www.cwoodcock.co.uk/zxf

**Contributors this issue:** Kevin Bennet, Matthew Westcott, Geoff Wearmouth, Andrew Owen, Cathal, John King, Simon Ulliyatt and Thomas Eberle. A big thankyou also to all letter writers and news contributors.

ZXF magazine is copyright © C Woodcock 2004

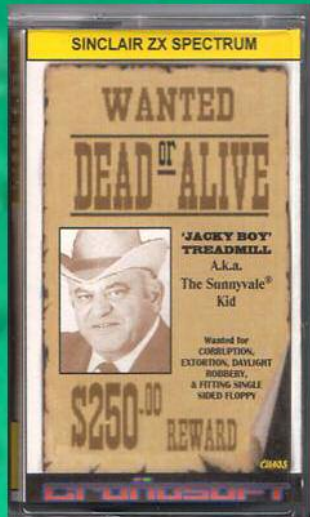
All contributors retain their own copyrights.



# 1994 wasn't a good year for the Spectrum... ...2004, however was GREAT!



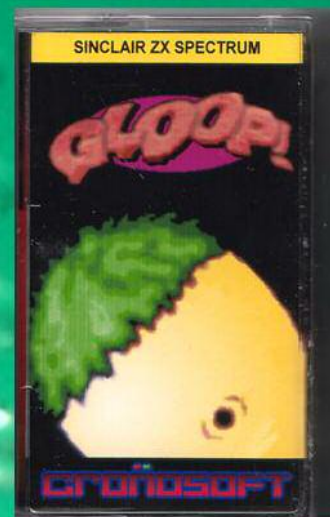
ZXS1 £1.99  
EGGHEAD IN SPACE



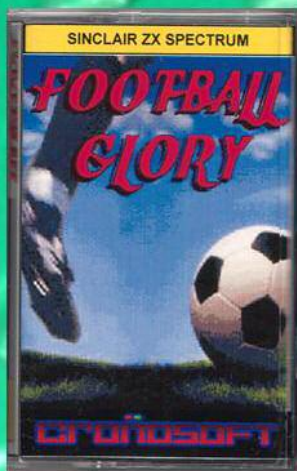
ZXS2 £2.99  
DEAD OR ALIVE



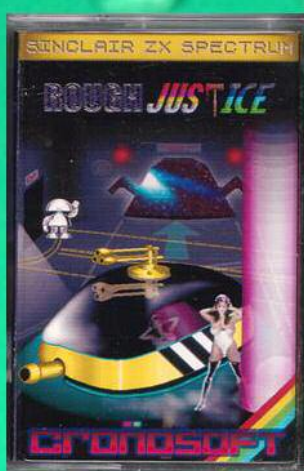
ZXS3 £2.99  
HOP 'N' CHOP



ZXS4 £2.99  
GLOOP!



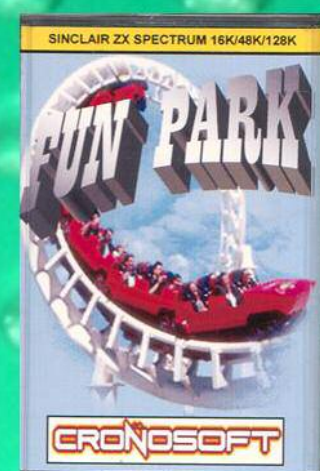
ZXS5 £2.99  
FOOTBALL GLORY



ZXS6 £2.99  
ROUGH JUSTICE



ZXS7 £1.50  
zblast SD+ 128K



ZXS8 £1.99  
FUN PARK 16K



[WWW.CRONOSOFT.CO.UK](http://WWW.CRONOSOFT.CO.UK)

32 Peter Paine Close, Butterwick, Boston, Lincs  
PE22 0HA—United Kingdom

Postage charge 99p per order (UK). For Euro/World orders.

Please see website for more information.

Please make cheques/postal orders payable to "S. ULLYATT"

We are always looking for new software to release on all formats.

Good royalties paid. Please contact us in confidence.







I always find it fascinating how, looking back each year on all that has passed, a pattern or theme seems to emerge. For me 2002 was a year of immense emulator activity. 2003 I will always remember for Cronosoft putting Spectrum software back on the map. And 2004 has to be the year that retro went mainstream.

Of course none of these things only happened in the year indicated. Emulators were hardly something new in 2002, but there was quite a burst of activity and - dare I say it - just a little bit of competition between the various emulator authors during this year. Cronosoft, of course, were not responsible for *all* of the 2003 software releases - far from it, in fact - and there were plenty of new programs developed before they came along; but this year and this label brought a much-needed clarity to the Spectrum software scene.

And 2004, of course, was not at all the first time that retro computing caught the eye of mainstream ventures. Micro Mart has run a weekly 'Retro Mart' column for some time now, of course, and gaming monthly GamesTM has run quite a chunky 'Retro' section since its first issue at the end of 2002. So what's so special about 2004?

Well Retro Gamer, obviously. And despite the points made above, the difference between a magazine which includes a quantity of retro content as opposed to one which relies completely on retro content to shift issues is enormous. I remember in the pre-RG days reading post after post on a wide variety of retro forums (not just for the Spectrum) about the non-viability of a retro magazine since it would not be able to subsidise its cover price through advertising. I was convinced by this argument. And then I met Martyn Carroll at the Micro Mart Fair last November.

Everything that Martyn said he would like to do during that chat he has pretty much now done. Retro Gamer started the year as a quarterly publication and finished it as a monthly, and along the way it has paid a lot of attention to our favourite machine. Martyn is a big Spectrum fan.

What was the Spectrum community's reaction to the publication? To be honest, a little frosty in places. A few people commented on it here and there, but forum postings appeared to contain more threads discussing why not to buy the magazine than why to buy it. As each new issue

hit the shelves, more and more Spectrum users seemed gradually to start coming round to the idea that it wasn't just a cynical money-making ploy, however (quite a number of Speccy users were stunned by the high cover price of £5.99 and the low page count of about 110, apparently not believing the argument about advertising subsidising the cost of normal, thicker magazines). And then there was the Your Sinclair supplement.

What happens next? I really don't know. We seem to be in a zone at the moment where half of the world knows something the other half doesn't. The Commodore 64 brand has been sold and the new owners are already marketing a game-packed joystick. Sega have jumped in on the act with a plug-it-in-the-telly controller pad. Amstrad, on the other hand... zip. Meanwhile, despite the success of Retro Gamer, we have seen no new competitors start up to try to take a share of its market. And I find myself oscillating between a belief that 2005 will see even greater strides forward into the mainstream and a fear that boring old normality will somehow suck everything back to how things were, as we saw in America in November.

And yet, as I write, a new set of publications have just hit the shelves, too late to make it into the news section of this issue. Both Retro Gamer and GamesTM have published paperback anthologies of retro content previously published in their magazines (the GamesTM book, incidentally, features a great forward by ex CRASH editor Roger Kean). I'm no industry expert, but it looks to me like a stocking filler/coffee table assault that could potentially bring many, many more people into the scene, if only on the periphery. As a strategic move, I think this idea is quite brilliant.

But whatever lies in store I am grateful for the year which has passed. Retro Gamer has brought a breath of fresh air to the community and reminded those who thought a mainstream retro mag impossible that few things are certain in this world.

If you're celebrating Christmas, I wish you a peaceful one.

Until April.

**Colin Woodcock**  
mail@cwoodcock.co.uk



## YS RETURNS... SORT OF

>Tribute supplement with *Retro Gamer* #9

Unless you've been holidaying off-planet for the last few months, it won't have escaped your attention that the classic Spectrum magazine **Your Sinclair** returned from the dead as a 32 page supplement bagged up with **Retro Gamer** issue 9. I think it's fair to say the project stunned the Spectrum community somewhat; the news was broken on both *comp.sys.sinclair* and *World of Spectrum Forums* by a rather hysterical **Nick Humphries**, maintainer of The Your Sinclair Rock 'n' Roll Years website ([www.ysnry.co.uk](http://www.ysnry.co.uk)) and who is probably still receiving therapy if his anticipatory excitement is anything to go by. It was the start of two extremely long threads in which the discussion started with complete and utter amazement, moved on to the suggestion of an annual magazine supplement, sauntered from there to the idea of a six monthly supplement and then ran screaming to a proposal for a monthly magazine all by itself in the shops. Within 24 hours the online hysteria had reached such a frenzy it was attracting the attention of social psychologists and historians alike. Just when the FBI were about to move in with perspex shields and CS cannisters, things went suddenly quiet as copies of the mag finally plopped through letterboxes and people started reading...

**YS94** was actually a six month project which **ZXF** first learned of in May, following **Live Publishing's** acquisition of the rights to produce a new issue under licence from **YS** copyright holders **Future Publishing** (publishers of a whole range of computer magazines today such as *PC Plus* and *PC Format*). Needless to say, ZXF was sworn to secrecy on the project. And that, let me tell you, was a hard, hard thing. The temptation to drop in a few hints in ZXF08 was almost overwhelming. And when the Spectrum community started debating RG's commitment to the Spectrum following its decision to move the word 'Sinclair' from first to fifth place on its front cover, well let's just say it was difficult to remain tight-lipped then too... In the end Yours Truly was asked to write some game reviews for the revival issue, which in total covered six modern Spectrum games:



**Cronosoft's** *Fun Park* and upcoming *More Tea Vicar* as well as *Party Willy*, *Fire & Ice*, *Abe's Mission* and the rather fabulous *TV Game*. The magazine also caught up with ex-YS writers **Matt Bielby**, **Teresa "Tzer" Maughan**, **David "Macca" McCandless**, **Mike Gerrard**, **Phil "Snouty" South**, **Marcus Berkmann** and **Jonathan Davies**. Irreverence was also present in large, healthy slabs.

The supplement has been met by almost universal acclaim - even non-Spectrum owners expressed their appreciation on the RG forums at <http://livepublishing.infopop.cc/eve/ubb.x> The graphic design of the magazine in particular has received thumbs up all round for its near-perfect reproduction of the original YS 'feel'. Some readers even enthused over the type of paper that was used.

Almost universal acclaim. A few sceners did express concerns about the project, pointing out that YS was brought to a dignified close with the



famous 'Big Final Issue' 93 and that any new attempt to revive it could spoil that. In particular, a few ex-YS writers that weren't involved were a little cheesed off that they or other ex-colleagues they valued hadn't been consulted - but of course there's always future issues in which that could be rectified...

So. Can we look forward to more of the same? ZXF caught up with **RG** editor and **YS94** contributor Martyn Carroll to ask a few questions about the project.

**ZXF: Whose idea was the YS supplement? And why YS rather than one of the other Spectrum publications?**

MC: The idea for the supplement came from Live's Editorial Director, Wayne Williams. He was impressed with the fan-created issue 107 of Zzap!64, and as we were both YS readers of old, it was deemed a good idea to resurrect the magazine. Then literally days later, long-time YS writer Phil South contacted us, offering his freelance services to Retro Gamer. The coincidence was too spooky to ignore, so Wayne had the idea, but Phil provided the impetus to actually get things off the ground.

As for the decision to choose Your Sinclair above Crash and Sinclair User. We felt that YS was the best-loved and perhaps best-remembered of the three. It had lots of character (and characters no less), and many memorable sections that we could have fun re-creating.

**ZXF: Was it difficult negotiating the licence from Future Publishing? When was this accomplished?**

MC: Getting the license was purely a business deal, and Future had no objections. Funnily enough though, when we first contacted them about it, they had no idea they actually owned the magazine. They even asked us if we were sure we had contacted the right company! It was only after a bit of digging around that they came back to us and very nicely offered us a deal. All this happened during the Summer.

**ZXF: The response to YS 94 within the Spectrum community was immensely**

YS94 even comes with its very own Smash Covertape, with legendary giveaways 'Batty' and 'Moley Christmas' as well as previews of Cronosoff's 'More Tea, Vicar?' and Peter Gordon's 'Sensitive'. Actually it's a 'virtual cassette' on Retro Gamer's cover CD, still that didn't deter Duncan Snowden from recording it to tape anyway. But without the snazzy cassette label it just wasn't the same... Lucky for us then that he made one. There's a PDF to download at <http://web.ukonline.co.uk/dss/ys94smashtape.pdf> and if you can't be having with all that glue and scissors malarkey you can get a pack of cassette labels at [www.aandcaudio.co.uk/blank\\_recording\\_media\\_storage.htm](http://www.aandcaudio.co.uk/blank_recording_media_storage.htm).

**positive - in fact many non-Spectrum owners also praised the project within the RG forums. Were you surprised by just how positive this response was?**

MC: I'd say that feedback has been about 90% positive, with a few claiming that we should have left the magazine alone, especially as it received such a dignified ending back in 1993. This was always a worry, and is the main reason why it was paramount to get ex-YS editors and writers involved from the start. With their input I was confident we could recreate the 'feel' of YS, and I believe we have, but I still didn't expect the amount of genuinely positive feedback.

**ZXF: Speculation is rife regarding follow-up projects! I understand Live Publishing negotiated the right to further issues of YS in the original licence deal. What are your thoughts about a follow-up?**

MC: We did negotiate rights to use the license again, and as issue 94 has been largely well-received all round, it's highly likely that issues 95 and possibly 96 will appear some time in 2005. I certainly feel there's more mileage to be had, as there are many more ex-YS employees to catch up with, and obviously new Spectrum games to cover. It also gives us the opportunity to play around with the design. Issue 94 was based on the style of Future's first re-design, and it would be cool to base our next issue on the style of the early Dennis days. We'll have to wait and see. As long as the Speccy scene continues to grow, I see no reason not to keep YS alive and kicking.





## IMAGINE ON CAMERA

>BBC documentary sees new light

Blimey. Not a month seems to go by these days without some new piece of ZX video being slapped up for down-sucking. This latest absolute treat is a twenty year old documentary filmed by the BBC that covers the *Imagine* collapse in astonishing detail. Here we see a friendly chap from the local bailiff service stopping *Imagine* employees from getting their coats.

The December 1984 episode of 'Commercial Breaks' is a famous one (you can read an excellent CRASH article about it at [www.crashonline.org.uk/12/imagine.htm](http://www.crashonline.org.uk/12/imagine.htm)); now you can watch it too thanks to Robert Hazelby and Nick Humphries, through whom the programme has become available as a 91MB Bit Torrent (<http://bitconjurer.org/BitTorrent/>) file, available at <http://obdwww.egyptus.co.uk/downloads/cbreaks.torrent>. Be warned: you are guaranteed to be glued to your monitor for the full half hour.

Although the documentary makes itself out to be a fly-on-the-wall account of both the collapse of *Imagine* and the development of Ocean's 'Hunchback II,' one of the participants in the film, 'Pud Pud' programmer Jonathan Smith, claims the Ocean scenes were completely staged. Online at [www.btinternet.com/~joffa.smiff/pudpud.html](http://www.btinternet.com/~joffa.smiff/pudpud.html) Jonathan states "these Ocean sequences were not filmed over a series of months, as the program makers would have you believe, but in a five day 'block'. This was mostly centred around Ocean's Manchester offices but also included excursions to seedy markets in search of pirated software, and a trip to a local school for product testing."

## SMITH @ CGE UK 2004

>All hail Miner creator

As we know, the CGE UK expo this summer featured the mighty Matthew Smith, creator of *Manic Miner*, who reportedly had such a good time he's interested in attending next year's event. If you were unable to get to Croydon, you can now watch a video of Matthew's speech filmed by Rob Hazelby and encoded by Nick Humphries. You'll need BitTorrent to get hold of the file (200MB) at [http://obdwww.egyptus.co.uk/downloads/matt\\_cgexpo2004.avi.torrent](http://obdwww.egyptus.co.uk/downloads/matt_cgexpo2004.avi.torrent). If the size is a problem you can also download an MP3 of the audio at [http://obdw...expo2004\\_mp3.torrent](http://obdw...expo2004_mp3.torrent)

Best quote: "one thing you don't realise when you're a bedroom coder is how much your bedroom costs to run." Yep.

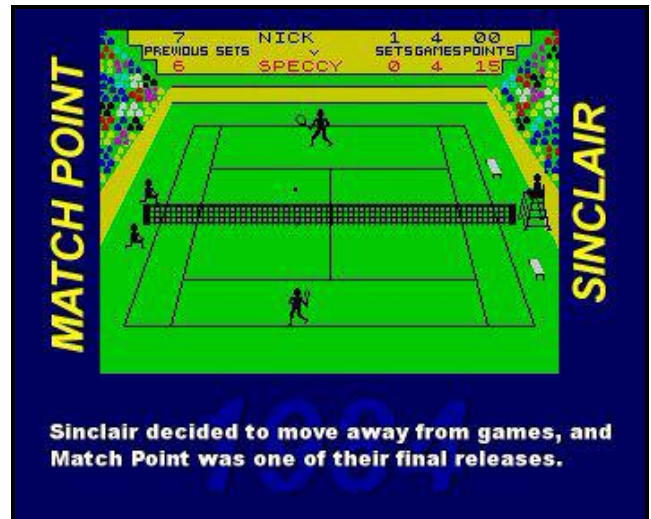




### THIRD YSRNRY DOCUMENTARY RELEASE

**>Best year for pop music ever in the history of all time (no, really) receives Sinclair focus**

At the time of writing, Nick Humphries is still working on the finished version of part three of his documentary, having become distracted by the sudden appearance of **YS94** and all the subsequent rehab. Naturally ZXF has been given a sneak preview. Here are the piccies...





## PONGMECHANIK

>It's PONG, but not as you know it

Hats off to **Niklas Roy**, whose fascination with **Nolan Bushnell's** arcade classic **Pong** has led him to make a 'real-life' electro-mechanical version. The finished result is a beauty, for sure, and will be displaying at a number of upcoming events in Europe, including **CCC Congress** in Berlin from 27 to 29 December and **Festival Transmedial**, also in Berlin from 4 to 8 February 2005. You can find out about just about every aspect of its creation at <http://pongmechanic.hasselt.org>  
Nice one Niklas.



## PROFANITY ADVENTURES

>!\$\$&£X?!\$

ZXF is generally of the opinion that life is sacred and that we insignificant humans should spend what scraps of it we have in as meaningful a manner as is possible. With this in mind, therefore, we stand in awe of the achievement at [www.monkeon.co.uk/swearadventure/](http://www.monkeon.co.uk/swearadventure/) Page after page after page of screenshots of Spectrum adventure games that give a response to language on the jucier side of fruity. And there was me thinking I was the only one to tell Gandalf to go £\$\$#^£NO CARRIER

## NGS WORLD

>New website celebrates NGS

[www.ngsworld.net](http://www.ngsworld.net) is a new website set up by the daughter of **Malcolm Evans** aka **New Generation Software**. NGS were responsible for a number of gaming delights on the Spectrum, the most famous of which was probably **Trashman**, the game where garbage was the star [your genius is wasted here, isn't it? -Ed]

The website coincides with the 20th anniversary of Trashman and its aim is to accumulate all things NGS under a single roof; it seems to be doing a good job of it so far. Malcolm's daughter - Rach - is also

aiming to have a complete set of NGS titles accumulated by Christmas to auction for Cancer Research.

## NEW TRASH

>Trashman remade

Speaking of Trashman and its 20th anniversary, **caffeinekid** has recently released a remake of this classic as his entry into the [remakes.org](http://remakes.org) competition 2004.

**Trashman Anniversary** is a jolly and colourful interpretation and can be obtained absolutely free of charge from TCK Soft's site: [www.tcksoft.co.uk/trashman.php](http://www.tcksoft.co.uk/trashman.php)

## NEW JETPAC

>Retrospec hit gold again

And speaking of remakes, a new interpretation of the **Ultimate** classic **JetPac** has been uploaded to the nirvana known



to us all as **Retrospec**

(<http://retrospec.sgn.net>). **JetPac**

- **Solar Crisis** is an absolute delight, bearing all the hallmarks of quality we've come to associate with the Retrospec stable over the years: great graphics, superb sound and passion - lots and lots and lots of passion.

JetPac - Solar Crisis sees Jetman called back into action when a bunch of nasty aliens take out all the orbital probes of Earth's defence system. The stakes here are extremely high: with the EDS out of the way the aliens' next target is nothing less than the entire Earth supply of tea leaves, which they intend to do away with through the use of a giant hive full of tea leaf eating insects. Naturally a threat such as this is well beyond the scope of anything experienced or envisaged before - I mean, weapons of mass destruction are nothing compared to this - so there's nothing for it but to get the best man onto the job - Jetman. Your task is to get about repairing those defence probes pretty damned pronto.

Solar Crisis is written by Richard Jordan, with graphics support by **John Blythe** and **Graham Goring**, both of whom, incidentally, worked on one of my other all-time remake favourites, **Cybernoid 2** (and Graham Goring also contributed to the fantastic **Head Over Heels**).

## GOSH MGT

### >Wearmouth ROM updated

**Geoff Wearmouth's** alternative ROM for the Spectrum 48K that allows you to type in commands on a letter-by-letter basis has now been updated to be compatible with **MGT** (Miles Gordon Technology) **DISCiPLE** and **Plus 'D'** interfaces. **Gosh Wonderful** version 1.29 was released in September and is available from [www.wearmouth.demon.co.uk/gw03/gw03page.htm](http://www.wearmouth.demon.co.uk/gw03/gw03page.htm)

## NEW FANZINES AT WOS

### >Format to be added to archive

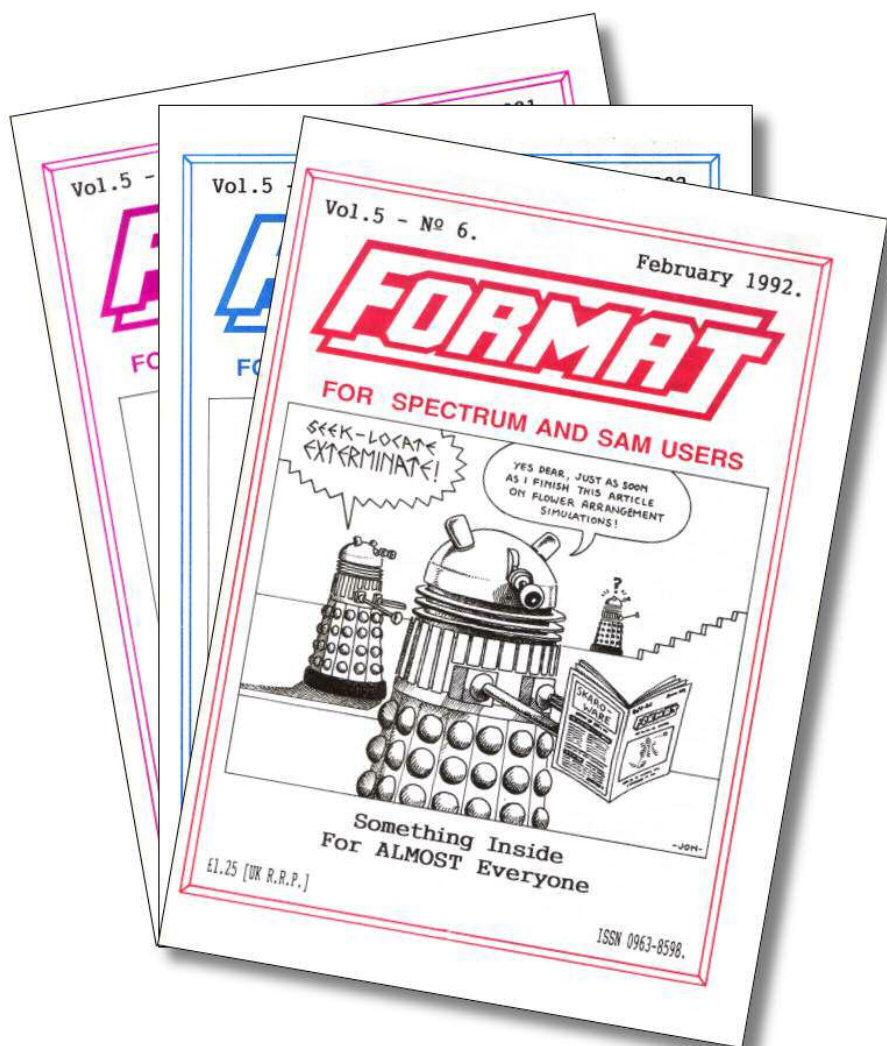
And on the subject of MGT, the next magazine up for preservation, at [www.worldofspectrum.org](http://www.worldofspectrum.org) - now that scanning of the 'big three' is done and dusted - is **FORMAT** magazine, publication of **INDUG** (INdependent Disciple User Group) and champion of all things MGT, such as the *Disciple* and *Plus D* interfaces for the Spectrum and, of course, the *Sam Coupe*.

FORMAT ran for over ten years, creating sudden controversy when out of the blue it stopped without warning, leaving its subscribers in the lurch. To this day the reasons for this have never been fully understood.

Despite editor **Bob Brenchley** being

apparently very hard to get hold of, Wos maintainer **Martijn van der Heide** has managed to track him down and obtain distribution permission for **FORMAT** magazine. This is likely to come as a surprise to a number of sceners, who had always speculated Bob would be over-protective of **INDUG** copyright, based on an incident where he threatened legal action over the use of the Sam Coupe logo on websites. As **Brian Gaff** pointed out at the time, however, you become a lot more protective of things like copyright when you're trying to survive on the income.

I subscribed to **FORMAT** myself for a year and thoroughly enjoyed every issue. So far five issues have been made available at WoS; watch out for the rest.







## ALCHNEWS TO RETURN

### >Comeback of legendary fanzine

The links are just writing themselves this issue. From the subject of one old Spectrum magazine we move swiftly to another. The good news for **AlchNews** is not only that it's coming back but also that it's returning to its original electronic format.

**AlchNews** was the magazine of PD group **Alchemist Research** and was edited by **Andy Davis**. Initially a tape-based 'zine, AlchNews was a simply superb resource for technical articles; because its contents aren't indexed by search engines it can be quite a surprise to find out the veritable treasures it contains.

In 2000 the magazine switched from tape to PDF for issue 33 onwards. It also combined with **Z88 USER** at this point. Although the magazine was never officially 'cancelled' as such, there have been no new issues since issue 38 in 2002 (just before the release of ZXF's first issue, in fact).

Announcing the magazine's return in September, Andy invited anyone interested to contribute articles and ideas and also promised the magazine would return to its original tape format. Apparently he now has a new dedicated work studio set up in his loft and a new issue is planned for release in January. Superb.

Past issues of AlchNews - both the tape and PDF versions - are all archived at WoS; why not spend Christmas exploring them to whet your appetite for the return? And in the meantime, keep your eyes on [www.alchemistresearch.com](http://www.alchemistresearch.com)

## ROMANIAN HOBBIT ONLINE

### >8-bit fanzine archived

A final bit of magazine news - **hobBIT**, a Romanian 'zine for a number of 8-bit formats made between 1991 and 1993 is now available online at <http://reviste.doowap.net/index.php?spgmGal=hobBIT>



## SEARCH BAR UPDATE

### >WOS forums added

The Speccy Search Bar, brainchild of the extremely affable **Gerard Sweeny**, has been updated to version 1.6 and now adds WoS Forums to its ever increasing list of Speccy searchables. The bar installs into Internet Explorer (Windows), Firebird, Firefox and Mozilla browsers and can be obtained from its home on the web at [www.the-tipshop.co.uk/ssb/](http://www.the-tipshop.co.uk/ssb/).

## CODIES CLASSIC ONLINE

### >Codemasters turn 18

Apparently Codemasters, one of the few 80s software houses to have denied the distribution of its 8-bit titles, are 18 years old. Apparently they've made

available for free on their website the C64 version of their first ever game, *BMX Simulator* to celebrate. Apparently you have to sign up for their free newsletter in order to get hold of it. As you can see, I didn't. But if you'd like to, the place to look is [www.codemasters.co.uk](http://www.codemasters.co.uk).

## SINCLAIR COLLECTION

### >ZX81 range on display

ZXF readers will know I'm a bit of a fan of the Sinclair brand of software for the Spectrum. Of course before the Speccy came along there was a similar range of programs for the ZX81. **Rob Parker** has developed a collection of these lovely titles and presented them online at <http://zx81.atspace.com/> It's very nice indeed.

## ORSAM 2004: THE GAME

### >Thrust clone written in five hours

Cauldwell The Great has notched up yet another Spectrum programming achievement to add to the considerable list he's been growing of late. This one is a game written in five hours at the Norwich ORSAM 2004 show in November. That's right: five hours. It would have been longer except that Jonathan didn't get to the show until 10:30 and then took half an hour to set his equipment up. Tch.

In his 300 minutes of programming Jonathan has managed to come up with an extremely playable THRUSTesque game. Having personally found Thrust games to be both immensley addictive and yet appaullingly difficult (let's just say you wouldn't want me in control of an escape pod), I can say with confidence that this game will be going nowhere near any of my real Spectrums so long as I continue to consider them valuable objects one would not ordinarily throw out of a nearby window in total rage. Luckily the PC is too heavy.

Cauldwell managed to get just a single level complete but plans on enhancing the game in the future. Also Matthew Westcott wrote a tune for the game during the show and that will be added in too.

The game is currently up for free download at Jonathan's website at <http://members.fortunecity.com/jonathan6/egghead/id7.html>

Personally I really hope that this version continues to remain available alongside any improvements that follow - purely as an example of what can be achieved in such a short space of time.

**UPDATE** The new improved version with Matthew's music added is now available from Jonathan's site. And now the game has a name too: **Lunaris**. It even has a little story too. It turns out it's all about a spacefaring bloke called Henri Latrine...

## NEW PAW

### >Version 6 of WinPAW coming

**Douglas Harter** has contacted ZXF about renewed work on his version of the Professional Adventure Writing System (PAW) for Windows, a system that I fully intend to use one day to convert **Blink** (WinPAW can deal with Spectrum games written using either PAW or The Quill so long as the databases have been decompiled). Here's what he had to say:

*After 4 months of being retired, I have gotten most of my high priority projects out of the way. So I am free to start working on version 6.0 of WinPaw again. If things go well, I will have a V6 early first quarter of 2005. Some of the new features in Version 6 will be:*

*Saved field widths in the DataBase displays if you resize them.*

*Duplicate words. You will be able to 'Screw the screw' if you wish.*

*An AGAIN and OOPS command Export and import for ACE.*

*Option in Packaging to include the ZIP for the Engine*

*Export And Import some Adventure Settings*

*Database Table Export and Import*

*Some of the Users in the last six months have had a problem with importing from a UnQuilled or UnPawed game. There is a beta of V6.0 which corrects this problem (it has the first new feature as part of it). This version is at <http://www.winpaw.com/V6/WPIDEUpdate.zip>*

## MINI GAME OVER

### >ZX victorious in tiny games compo

Last year the Spectrum took home the 'silver joystick' of second place in the annual Minigames Competition, thanks to Jonathan

Cauldwell's **Amusement Park 4000**. This year it's nothing less than gold with **Paolo Ferraris'** 4k title **4k Race**.

Gaining an average score of 8.40 over twenty votes, 4k Race is a visually very impressive racing game, leaving you wandering what on earth Ocean did with the other 44K for Road Race. 4K Race was one of seven Spectrum entries this year across two categories of 4K and 1K (there were also three ZX81 entries). Nearly 60 games were submitted in total. Voting took place during October.

So it's thanks to **Stephen Judd** for running a well-oiled competition. You can still download all entries at [www.ffd2.com/minigame/](http://www.ffd2.com/minigame/) of course.

## LOAD "" SCREEN\$

### >Top loading tones tune

I can't work out if this is a remix of a tune released earlier this year or something completely new - I think it's the former. Either way, **Raffaele Mattei's** top dance track **LOAD "" SCREEN\$** will have you smiling from the first note; depending on your take on the Spectrum scene, you'll either regard it as the zenith of ZX cool or the most ridiculous thing you've ever heard. ZXF, naturally, takes the first view.

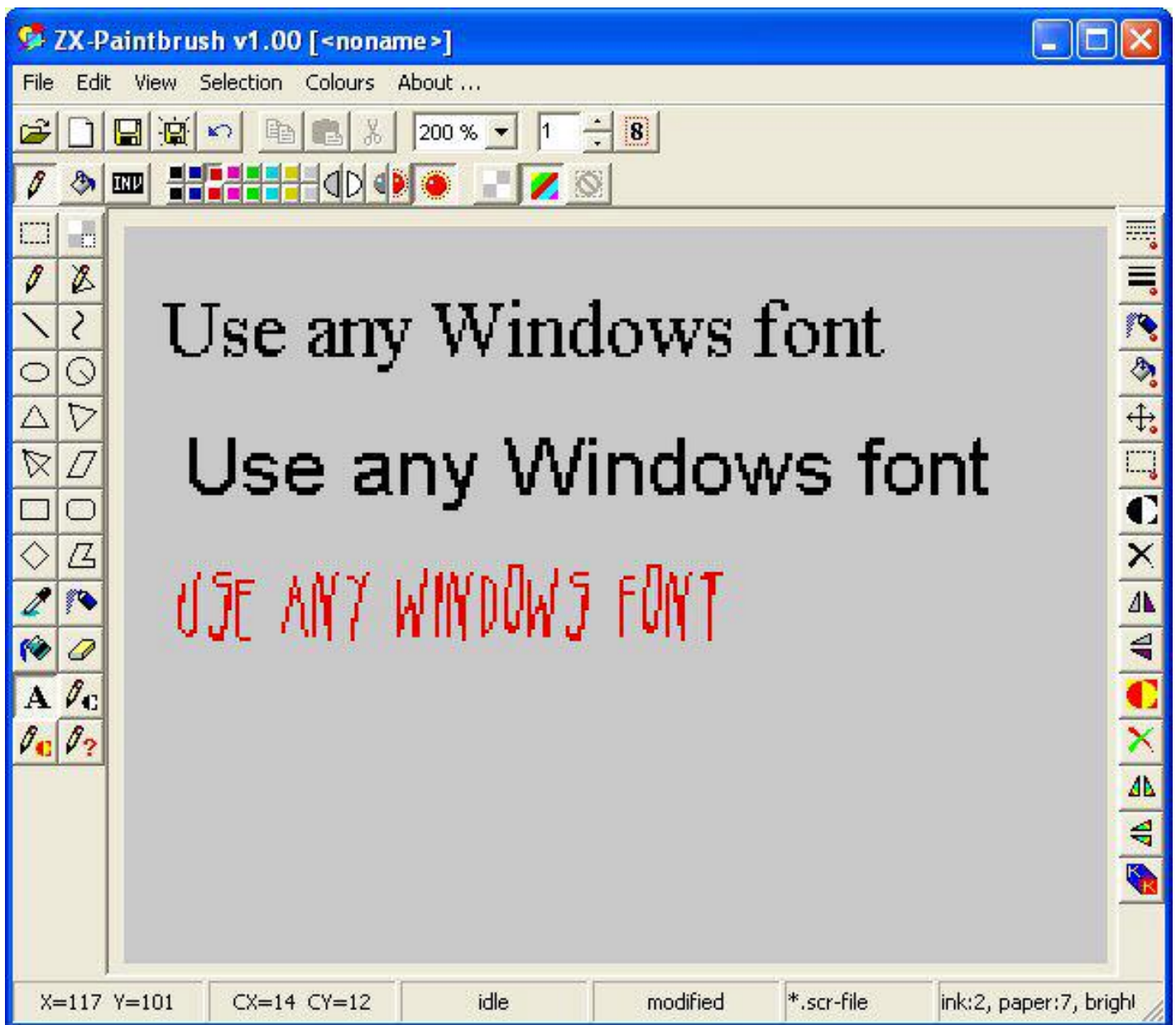
[ftp://ftp.worldofspectrum.org/pub/sinclair/music/ZXSpectrum-LOAD\\_SCREEN\\_2.mp3.zip](ftp://ftp.worldofspectrum.org/pub/sinclair/music/ZXSpectrum-LOAD_SCREEN_2.mp3.zip)

## AMSTRAD PROGRESSION

### >E3 introduces videophone

Spectrum copyright owners Amstrad seem to have come up with what appears to be a genuinely innovative product: a phone with a built-in video camera. Sporting a colour screen, the E3 continues with the support for Spectrum games introduced with the Emailer Plus (it doesn't actually promote this, but Amstrad have confirmed it to ZXF). [www.amstrad.com](http://www.amstrad.com)





# ZX-Paintbrush

Version 1.0 by Claus Jahn; <http://home.arcor.de/clausjahn/spectrum/index.html>

These days a lot of the emphasis on graphics editors goes into conversion from PC formats. All well and good, of course, but I found myself yearning for the days of a simple editor anyway.

**SevenUP** by Metalbrain went a long way towards meeting my needs; ZX-Paintbrush from Claus Jahn meets them magnificently.

It's not just fonts that ZX-Paintbrush does, of course (this, by the way, is

a feature I've been waiting for for ages). There's a whole host of drawing tools - patterned fills, pixel inversion, attribute inversion, selection tools and more. You can change line thickness, and style; you can change spray size. You can import bitmaps, Jpegs and GIFs, but you'd probably be better off with LCD's **BMP2SCR** tools for that kind of work.

ZX-Paintbrush is basically every-

thing you could have asked for of an actual Spectrum graphics editor - which just happens to be running in a window. I really, really like this program. It's the most complete new Spectrum utility that I can remember seeing - there's very little I can think off that would make it much better (actually, a pixel grid would be nice...). And there is a very comprehensive help page at Claus' website. Superb.



# ZX-EXPLORER

Version 0.99 by Claus Jahn; <http://home.arcor.de/clausjahn/spectrum/index.html>

So Mr Claus has been very busy in the run up to Christmas [is that the best piece of wordplay you can come up with? - Ed]. **ZX-Explorer** and **ZX Paintbrush** are, in fact two of seven applications collectively known as **ZX Modules**. Together these modules are intended as a replacement for Claus' best-known (but not very old) utility **ZX Rainbow Second Edition** - which, incidentally, no longer appears to be available from his website. What are the

other modules, you ask? Well there's **ZX Favourites**, which will store most wanted programs with their games informations in a database, **ZX Preview**, which will show screen\$, basic listings, system variables, etc, **ZX Blockeditor**, which will show/edit the blocks of Spectrum files, **ZX Editor**, which will edit ZED-files amongst other things, and **ZX ModulesCentral**, which will control and co-ordinate all the other modules. As you've probably

guessed from my use of the future tense there, none of these five modules are available yet. Judging by the speed at which ZX Paintbrush and ZX Explorer have been developed, however, there is no reason to suppose at present that the wait for all of these programs will be an especially long one.

I like **ZX Explorer** very much. Where ZX Rainbow was quite a large and unweildy program at

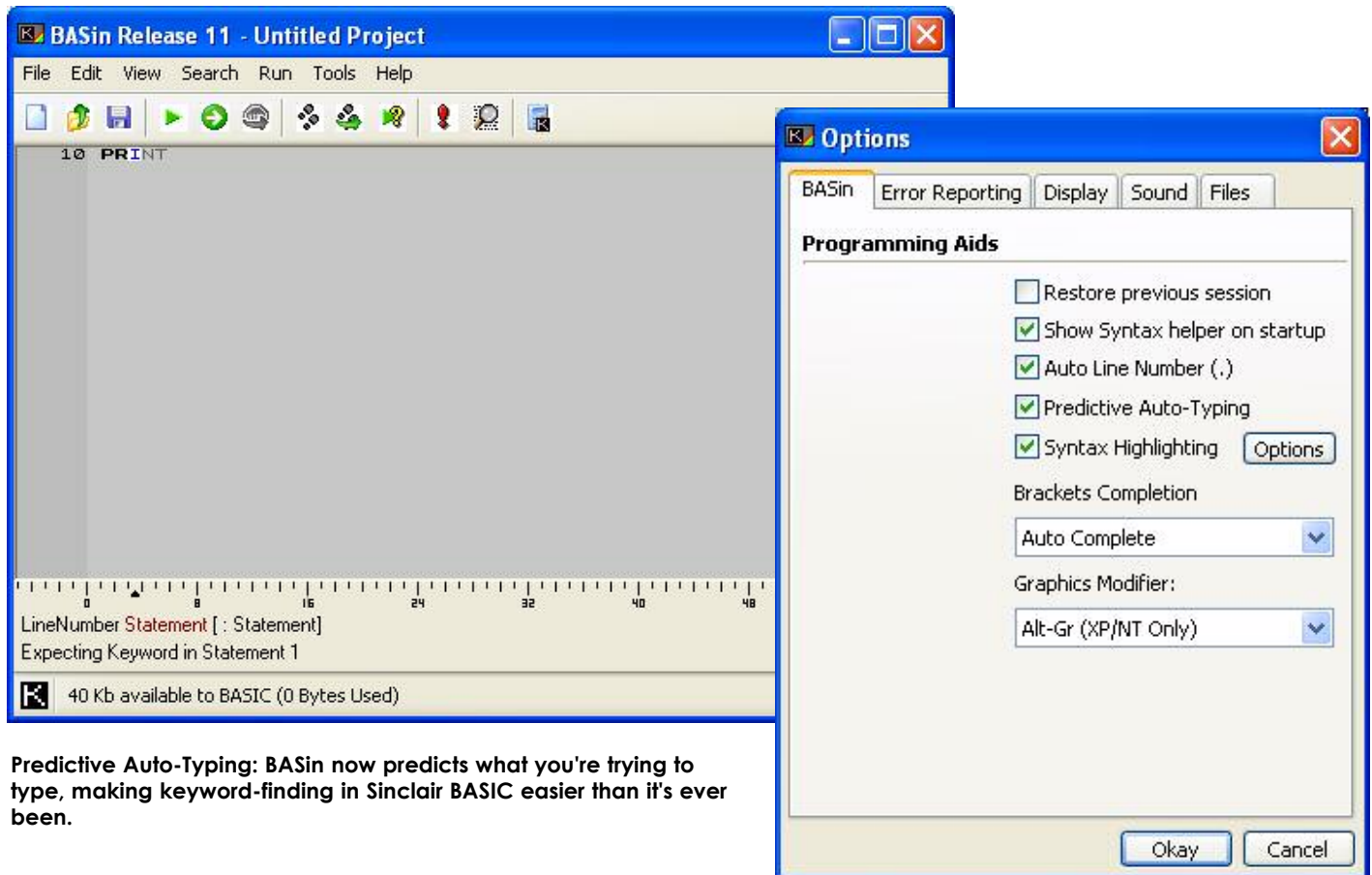
times, ZX Explorer fits the bill just perfectly. The screenshot pretty much tells you everything about the program that you need to know, which is that it allows you to browse all of your Spectrum files with ease, with the added bonus that it automatically recognises WoS-listed files and displays database info on all of these. The coolest part of all was seeing **Blink** get recognised. A very handy utility indeed.





# BASin

Release 11 by Paul Dunn; [http://homepage.ntlworld.com/paul.dunn4/BASin\\_r11a.exe](http://homepage.ntlworld.com/paul.dunn4/BASin_r11a.exe)



**Predictive Auto-Typing:** BASin now predicts what you're trying to type, making keyword-finding in Sinclair BASIC easier than it's ever been.

**The ultimate Sinclair BASIC coding tool has received a massive update.** BASin Release 11 contains a wealth of new features, many of which have been added in direct response to requests made by users (Dave Mills, Geof Wearmouth and Paul E Collins are credited) - now you can ask no fairer than that. One of the most visible additions is the new help system, which includes the entire ZX BASIC Programming manual, thanks to the efforts of Paul E Collins, as well as a nifty little right-click system that allows you to request information direct on keywords and functions within your own listing.

There are so many new features it would be pointless to try to

describe them all in my own words when a perfectly good release announcement exists. So here is Paul Dunn's own description of all the additions:

- Sound! Beeper/Port \$FE Sampling only at the moment.
- Very basic help on BASin, and the entire 48k Spectrum Manual as a help file. You can get help by right clicking a command and choosing "Token Help", or by using the Help menu. A \*massive\* debt of gratitude goes out to Paul E Collins for his fantastic work on the help file.
- A Tokenise/Detokenise option on the right click context menu. You can now insert or remove tokenised keywords from strings.

ie, if you type "COPY" into a string, you can tokenise it to \$FF (with a small graphical representation) now.

- Drag and Drop support for BASIC files (.bas), CODE files (.bsc) and SCREEN\$ files (.scr).
- Following on from the context menu, BASin now supports variable inspector tooltips. Hover your mouse over your variable name and as long as it's been declared in memory, a tooltip will appear containing a description of the variable, and it's contents.
- A right-click context menu for the editor, which you can use (or will be able to use) to get help on commands, and edit

## CHAPTER 1 Introduction

Whether you read the Introductory book first, or came straight here, you should be aware that commands are obeyed straight away, and instructions begin with a line number and are stored away for later. You should also be aware of the commands **PRINT**, **LET**, and **INPUT** (which can be used on all machines that use BASIC), **BORDER**, **PAPER** and **BEEP** (which are used on the Spectrum).

This BASIC manual starts by repeating some things given in the introductory booklet, but in much more detail, telling you exactly what you can and cannot do. You will also find some exercises at the end of each chapter. Don't ignore these; many of them illustrate points that are hinted at in the text. Look through them, and do any that interest you, or that seem to cover ground that you don't understand properly.

Whatever else you do, keep using the computer. If you have the question "What does it do if I tell it such and such?" then the answer is easy: type it in and see. Whenever the manual tells you to type something in, always ask yourself, "What could I type instead?", and try out your replies. The more of your own programs you write, the better you will understand the computer.

At the end of this programming manual are some appendices. These include sections on the way the memory is organised, how the computer manipulates numbers, and a series of example programs illustrating the power of the ZX Spectrum.

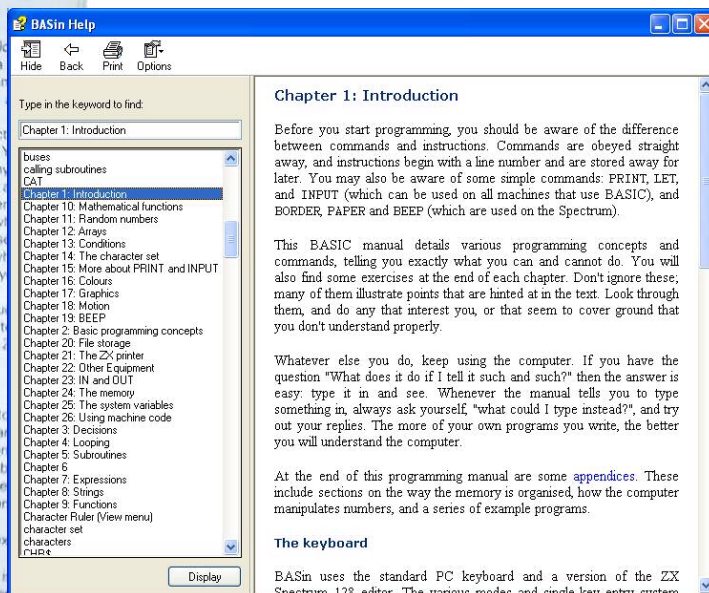
### The keyboard

ZX Spectrum characters comprise not only the single symbols (letters, digits, etc) but also the compound tokens (keywords, function names, etc) and all these are entered from the keyboard rather than being spelled out. To obtain all these function names and commands, some keys have five or more distinct meanings, given partly by shifting the keys (i.e. pressing either the **CAPS SHIFT** key or the **SYMBOL SHIFT** key at the same time as the required one) and partly by having the machine in different modes.

The mode is indicated by the cursor, a flashing letter that shows where the next character from the keyboard will be inserted.

**K** (for keywords) mode automatically replaces **L** mode when the machine is expecting a command or program line (rather than **INPUT** data), and from its position on the line it knows it should expect a line number or a keyword. This is at the beginning of the line, or just after **THEN**, or just after **:** (except in a string). If unshifted, the next key will be interpreted as either a keyword (written on the keys), or a digit.

**L** (for letters) mode normally occurs at all other times. If unshifted, the next key will



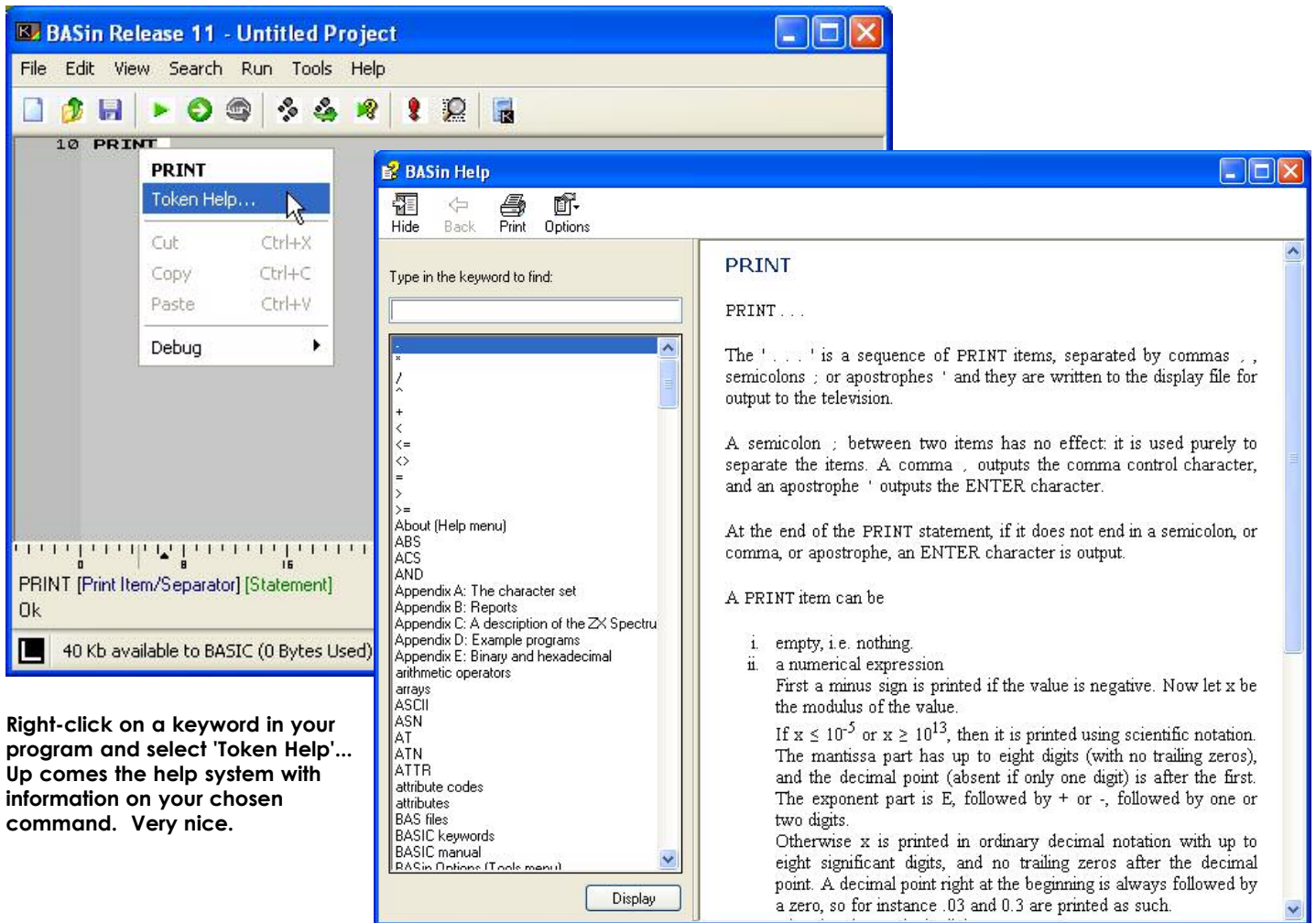
**Release 11 includes the entire BASIC programming manual presented as a help file. It's all there at your fingertips thanks to the work of Paul E Collins.**

- variables by just clicking them.
- Proper hints to the toolbar buttons. It was about time I did, really...
- Multi-Line code mergeing (using for example the Paste system or the UDG Editor's Send As BASIC option) now has a small warning when a line is to be overwritten.
- Line overwrite protection. Now if a line is going to be overwritten, you get a green error cursor at start of the line. Pressing Enter again will have the line accepted.
- Upgraded the Renumber tool to do ranged rennumbers now - you can specify a portion of the program to renumber instead of the whole thing. Beware of renumbering and overwriting existings lines outside the renumber range! BASin will alert you if that happens.
- Block Delete. You can now delete a single line by typing it's number, ie, 10<return> and multiple lines using 10,20,30,40<return> or by using 10..40. you can mix these ie: 10,20,30..60,100
- The Editor will now display string literals using the characters pointed to by CHARS - so you can see what your new chars will look like. Also updated the Token Window with a checkbox you can select to display the current charset in the alphanumeric box.
- Editor speed-ups - should about 2x faster than it was before.
- Editor keystroke sounds. You can turn them on or off in the Sound options page, and choose between a 48k style keyclick and a 128k style. The "line OK" and "Error" beeps from the 128k will sound regardless of 48k/128k type.
- Insert/Overwrite mode for the editor, with a Statusbar indicator.
- Imported the 2xSAI and SuperEagle display scalers from the upcoming release of SPIN.
- Updated the Scale2x routines to assembly language for a vast increase in speed.
- Frame Skipping. BASin can now be configured to skip any number of frames, and can auto-skip if necessary to keep sound emulation smooth. This means that rendering styles like scale2x and Bilinear can be used in a maximised display window.
- Saving a program now adds the filename to the MRU list on the file menu.





# UTILITIES



Right-click on a keyword in your program and select 'Token Help'... Up comes the help system with information on your chosen command. Very nice.

- Error help box - allows the user to get information about a particular error, without having to actually cause it first.
- An extension to the Autobrackets method - you can now have it complete bracket pairs when you enter a line or use a : separator rather than have them autotyped.
- Predictive Auto-Typing :) It will predict what you want to type (from a selection of Keywords, Functions and Variables) - either carry on typing or hit the right arrow (or the END key, or the "." key) to accept it.
- GOSUB stack window. Minimal functionality at the moment.
- Syntax Highlighting in the editor - you can turn it on/off and configure it from the first options

page.

- The facility to trace (follow) program execution at runtime (Run Menu).
- The "Character Ruler" which will help with creating long strings which /need to wrap around the screen. A green bar will show where you are in the string, and every 32 characters a red marker will appear on the ruler.
- A simple calculator to the editor - like the old 128k. Just type a numeric or string expression at the editor, and it will be evaluated and sent as a direct command rather than tokenised and stored as a program line. Beware - a single number (such as "2") will be accepted as a blank line number, and as such will still delete the corresponding

line from memory if it exists!

A complete list of bugfixes can be found in the "BASin\_WhatsNew.txt" file included in the distribution.

Since release 11 there has been a release 11a update which includes a few bugfixes and a number of corrections to the BASIC manual made by Geoff Wearmouth - that's corrections to the actual manual - not corrections to BASin's version of the manual. It's all adding up to a very complete system indeed. Well... almost complete. The BEEP composer shown last issue is there, but not yet operational. It sits there, teasing... *You want me, don't you,* it whispers seductively as you gaze upon it longingly, *but you can't have me yet...*

Or smething. Let's all look forward to Realease 12.

## AY-Emulator

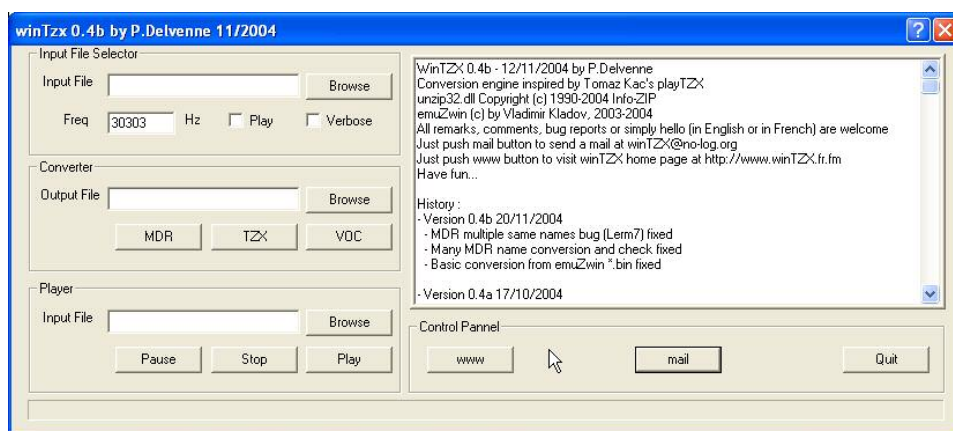
v2.8 by Sergey Bulba;  
[http://bulba.at.kz/main\\_e.htm](http://bulba.at.kz/main_e.htm)

There's a new version of Sergey Bulba's AY sound chip emulator up for grabs at his website. The AY-Emulator is a Winamp-style player for just about any Spectrum 128 music you can think of; this version now includes improved support for PT3 (Pro Tracker 3) files and also adds in drag'n'drop support.

## WinTZX

v0.4b by Patrick Delvenne;  
<http://www.winTZX.fr.fm>

Remaining with TZX utilities, Patrick Delevenne's utility, first released in June, has now reached version 0.4b. Initially a utility for converting between TZX/TAP and VOC formats, Patrick has now embarked on a project to enable conversion from TZX to MDR, (the Sinclair Microdrive format). At the moment



## PlayTZX Windows compile

b00mzilla (source by Tero Turtiainen & Fredrick Meunier)  
<ftp://ftp.worldofspectrum.org/pub/sinclair/tools/pc/Playtzx-win32.zip>

Sometimes all you want is a simple little program that does just one thing and does it well. **PlayTZX** is just such a program by **Tero Turtiainen** and **Fredrick Meunier**. It's been bouncing around for nearly a couple of years now (it's a Unix distribution) and what it does is, well, play TZX files.

Your Spectrum will love you for the quality of the signal it receives from your PC via PlayTZX. And now Windows users can enjoy this convenience thanks to a Windows compile by **b00mzilla** of the source. Connect your PC's loudspeaker socket to your Spectrum's ear socket, drag your chosen TZX file onto the PlayTZX icon. And you're away. That's all there is to it.

this is only partly achieved, but Patrick aims in the long term for his program to be able to convert any cassette file into an MDR file which can then be transferred to real Spectrums.

## Filmation Viewer

v1.0.2 by Neil Walker;  
<http://retrospec.sgn.net/users/nwalker/filmation/>

**Filmation** is the isometric technique employed in **Ultimate** games *Knight Lore*, *Alien8* and *Pentagram*. The Filmation Viewer - which is supported by a very comprehensive website - allows you to view in detail each game, including an interactive map, room analysis, room object characteristics and special objects. It also has an editor built into it to allow the modification of *Knight Lore* and *Alien 8* rooms and the creation of new snapshot files. Which sounds enormously exciting.

## SIR CLIVE AT HOME

>**Uncle C in Trafalgar**

Speaking in November to **The Independent**, Sir Clive Sinclair talked about his current residence in London - in Trafalgar Square, no less.

Explaining that the adjoining flats he bought are both his place of residence and work, Sinclair went on to mention the success of his *Sea Scooter* joint venture with Hong Kong company *Daka* and the ultra-lightweight folding bicycle that *Daka* will start producing in 2005

On the subject of Christmas, Sir C remarked "with a view of Nelson's Column [...] I don't need to bother getting a Christmas tree as I can just look at one out of the window." Quite right Clive; save the pennies for the poker.

<http://money.independent.co.uk/properly/homes/story.jsp?story=585867>

## WOS HITS NINE

>**Birthday for no.1 ZX site**

The headline says it all. Yes, **www.worldofspectrum.org** is now 9 years old and ZXF joins the community in wishing it many, many happy returns. Site owner **Martijn van der Heide** usually comes up with a little treat to mark the celebration and this year is no exception - a new tributes area saluting the efforts of departed ZX heroes.

## RAWW HITS NINE

>**Demo party celebration in Feb**

Spectrum news site [www.raww.org](http://www.raww.org) celebrates its fifth birthday 4th - 6th February and will be marking the occasion with a demoscene party in Somerset - the first such UK event in... well, ages. Find out more about the event at <http://party.raww.org/>





# EMULATORS

## ZZ Spectrum

v2.1 by Troels Nørgaard;

[www.zzspectrum.org](http://www.zzspectrum.org)

I sometimes despair at some of the assumptions held by the ZX Collective - in particular the one about the world and his granny all having a Phd in advanced computing. With this in mind, Java emulators are magnificent things. Show an ex-Spectrum lag their favourite game running in an Internet Explorer window and you might just have a new convert to the cause on your hands right there and then. The integration of **ZZ Spectrum** to the database of [www.worldof\\_spectrum.org](http://www.worldof_spectrum.org) is therefore an immensely important aspect of the website and its strategy. Within five clicks of the home page a user can now not only have tracked down a favourite game, *but be playing it*. Nothing to download. No emulators to install. No file handling to learn. Just five clicks.

All of which means that ZZ Spectrum - whilst it might not be one of the first emulators that springs to mind regarding the subject - is actually probably one of the most important Spectrum emulators there is. It's the first point of contact for many browsers exploring their memories and who need their hands holding if only for a few feet of their journey.

After a period of absence from the web, ZZ Spectrum is back, with a new website and a new version. Version 2.1 includes support for, amongst other things, the +3 and its disks, the Interface 1 and Microdrive, TZX files, ZX Printer and black & white TV mode. A pretty hefty update then.

A nicety brought to my attention by **Geoff Wearmouth** is that the ZZ Spectrum website, in its sample files for use with the emulator, includes both the 1983 and 1984 microdrive demo cartridges. You didn't know there were two? Neither did I. But now we do.

## RealSpectrum

R14B by Ramsoft;

[www.ramsoft.bbk.org](http://www.ramsoft.bbk.org)

Just when you thought the updates were finally over, **RealSpectrum** is back. Billed as a 'micro update,' R14B is basically a bugfix. But to make it more interesting, the boys from Tuscany have thrown in a **Codemasters** CD emulation feature too. This CD (which isn't included in the download, before you start getting your hopes up) was a late compilation of Codies games that came with a special cable to connect your CD player to the Sinclair Joystick port 2, enabling the Spectrum to access and interpret the very fast turbo loaders used.

And RealX, by the way, is still progressing :)

## EightyOne

v0.35 by Mike Wynne;

[www.chuntney.com/eightyone/](http://www.chuntney.com/eightyone/)

EightyOne is of course Mike Wynne's **ZX81** emulator and it's been updated quite a bit over the last few weeks. With the latest round of updates a wonderful new piece of terminology has been introduced to emulator speak - 'Display Artefacts'. Actually I don't know if this really is the first time this term has been used, but it's the first time I've seen it and I love it. For EightyOne, Display Artefacts has its very own options box available from the View menu, and there you can mess around with both a 'noise' control and a 'ghosting' control. TV ghosting emulation; I absolutely love it. Someone please incorporate this into a Spectrum emulator. Pretty pretty pretty please!

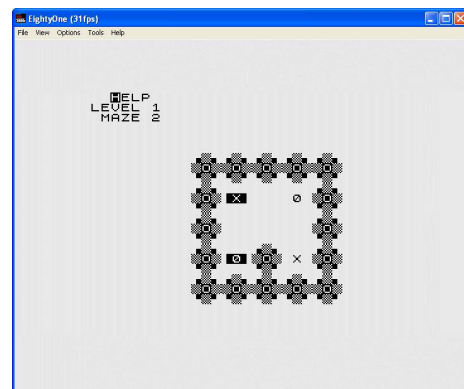
To date we've seen various attempts to mimick the TV screen, which have included having a Black and White TV mode as well as blurring and scan lines.

Ghosting is I'm pretty sure a new feature, however, and boy oh boy does it bring back some distant memories!

What's the point? The point is, if I can throw in some jargon of my own, recapturing the qualitative experience of using these machines. There are always going to be some aspects of this which simply can't be captured - like the feel of the rubber keys, the smell of the dust inside being nicely heated up and so on. But noises and displays can be emulated and, as far as I'm concerned, the emulator authors are doing a damned fine job of it too.

EightyOne now also supports the Timex Sinclair TS1500 ROM - that's the (second) American version of the ZX81 to you and me. And there's some preliminary support for the Lambda ZX81 clone too, which I have no doubt will be developed soon. Also, EightyOne is now calimed to be "100% sub-t-state accurate". Jolly good then.

On the subject of the ZX81, the little 'un is currently receiving a lot of support from **Andre\*\*\* Baune** from Canada, who appears to be releasing new games for the machine on a monthly basis, or thereabouts. His latest title, **INZHEC**, is a rather addictive little maze game that crams 36 levels into 16K. And January, we are told, will see the first of his 2005 releases, **AWARI**. You can download these and previous titles, plus copies of Andre's 1991 magazine ZX81 from [www.zx-team.de/andre/](http://www.zx-team.de/andre/)



## SINCLAIR ZX81 COMPUTER + ACCESSORISE

Starting bid: **£500**  
 Number of bids: **0**  
 Ended: 20-Oct-04

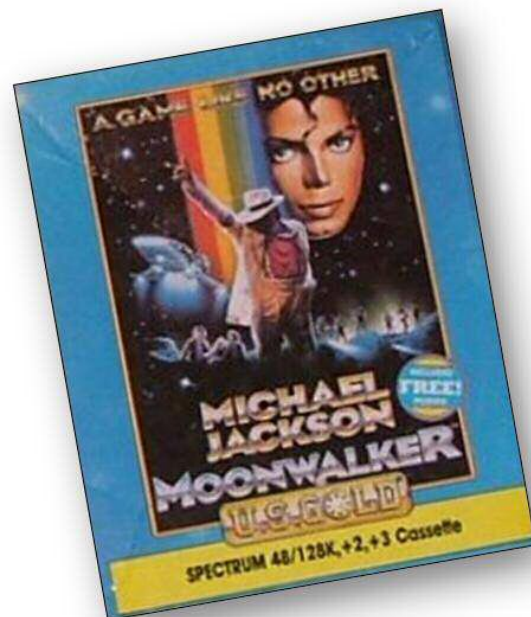
Reality is a cruel and uncaring mistress, yet still we fall prey to the belief that we can change her, if only we believe it hard enough. This poor newbie to ebay obviously thought s/he had stumbled across the motherload in this example of the mass produced ZX81. ZXF sent a very welcoming note pointing out the significance of the '1' but received no reply... Perhaps the seller was encouraged on by the over 1,200 viewers of the lot, not realising the visitors were actually flocking to the page from forums to shout a collective "WHAT?!" at the screen.

SINCLAIR ZX81 COMPUTER PLUS  
 CASSETTES ALSO INSTRUCTION  
 BOOKLET PLUS MAGAZINES IN  
 VERY GOOD CONDITION WILL SELL  
 FOR £500. BUYER TO PAY FOR  
 POSTAGE. A COLLECTORS ITEM SO  
 BID NOW.

## Michael Jackson Moonwalker 1989 Spectrum computer game

Starting bid: **£199**  
 Number of bids: **0**  
 Ended: 02-Dec-04

If the previous seller could be forgiven for his/her complete lack of research on account of being a newcomer to The Republic of Ebay, no such excuse could be made for this one, who had the experience of over 600 transactions to draw upon. Now, to be fair, I have heard of this game fetching something like £20 in its Sega Megadrive incarnation on ebay before; how this figure got multiplied by ten as the title downgraded to 8 bits, however, is beyond me. Within days, another eager and presumably very astute ebayer had put a C64 copy up for the much more reasonable price of £150. Ahem. Meanwhile, an Amstrad copy put up at 99p did eventually sell for... well, 99p actually.







*What are you going on about?* 

Send your letters, viewpoints, mini articles, etc to [zxf@cwoodcock.co.uk](mailto:zxf@cwoodcock.co.uk), with 'wibble' in the subject line.

## BFEEDBACK FOR ISSUE 8

**A few of the comments you left at the ZXF website. In addition to the comments like those below ZXF receives loads of uncommented ratings - mostly 8 or 9 out of ten, but I couldn't help feeling just a little concerned by the rating of zero from somebody in Cambridge...**

I have downloaded all your issues until now and I feel very impressed of ZXF high quality.  
Congratulations. [Spain]

Great to have \*anything\* retro. Perhaps 2 pages to one PDF page not so good for PC readers tho". Great to print out however.  
[England]

Great fun to read and immaculate layout. Brilliant job! Well done!  
[England]

Hi, I'm an active ZX Spectrum (well, ATM Turbo 2+) user from Toronto, Canada. I'm originally from Russia. Thanks for your epaper. It's a nice way to get into the wester scene.  
[Canada]

I know it since first issue. Excellent contents & presentation. Wish I had time to contribute. [Spain]

Fantastic, really good. Especially enjoy emulator & Cronosoft reviews. [UK]

Thank god! quarterlife crisis retro fun! [England]

Great magazine! Just one remark! Section "New to Spectrum Scene"

with links should be rename to GOTO! This will be much more appropriate! ;) I have also bought your excellent paperback book! I expect even more books in paperback format on ZX Spectrum! For second book let's say complete reference on ResiDOS! Warm regards from Slovenia! [Slovenia]

I've never had any spectrum. After i've read your ZXF, i wish i had.  
[Poland]

Please PLEASE - keep it up - I'm gonna download em all now - I f I can just get those printer settings right! [England]

Wow. This is by far one of the best online magazines I've seen - and it is about the Speccy! The Layout is very professional and the articles are well written and show a lot of love for the Spectrum. [USA]

I can't find nothing bad with the magazine, excellent! [Spain]

one of the best pdf magazine about classic computers i have ever read. i rate it 9, just because i'm atari fan :) [Poland]

When I downloading ZXF i didn't expect that it so cool [Russia]

cool mag wish I found it earlier saw it in retro computer mag. any more on the net I would be greatful or ebooks about the good old days manuals etc. Keep up the good work. [England]

Finally !! Another issue of my fave

spectrum magazine on the net !!! Congratulations for this hard work, superb !!! [Brazil]

Always enjoy a quick flick through ZXF - definitely the most professional ZX Zine I've seen... always contains info I haven't come across elsewhere. [England]

As usual, keep up the good work. The mag looks better every issue and this issue's cover is excellent!  
[England]

## LETTERS TO ZXF

Thanks for the mention in the splendid ZXF8. By way of a quick update, the webmaster of said site (whose name remains unknown, as he only signed by his handle flydream) contacted me on the WOS forums.

The upshot of it was that I had grossly understated how many tapes were on his site. At the time (14/06/04), there were 3247 programs on his site - EEK!

So I downloaded the lot of 'em, and have started going through the list. I'm making reasonable progress so far.

In order to stop me getting as confused as I was earlier with multiple emails coming in, I've decided to wait until I get through the entire list myself, and then post my findings. And then get confused again :-)

Anyhoo, thought I should let you know that The Italian Project (still haven't quite got round to the idea of calling it The Italian Job) will remain an ongoing (and bigger) project :-)

Oh, and what I've read of ZXF8 so far is mighty damn fine... I could

have done with that Soundtracker tutorial many moons ago when I wrote the two AY tunes for Hack Attack 2... If you listen to them, you'll see what I mean! :-)

It (ZXF8) has an appointment with my work's colour laser printer on Monday :-)

Keep up the sterling work.

Toodle-pip!

Gerard Sweeney

ZXF08 is superb, as the other issues. I'm amazed by the amount of news on the Speccy scene you can retrieve every 4 months.

I've downloaded your e-book, also. It was particularly useful: I didn't know a thing about the MakeTZX GUI (and I'm from Italy).

Now I've successfully txx-ed some old games from dusty cassettes (typed in 20 years ago from listings of english and italian magazines). I've visited the "italian WoS" at [zxpectrum.hal.varese.it](http://zxpectrum.hal.varese.it) and indeed I've found there everything published in Italy in the golden years. I must point that the "italian unknown" on the Gerard Sweeney tipshop could be pieces of original italian software and not hacked adaptations as most of the software published in Italy in the eighties.

I'm really interested in the demo scene so I was glad to read the Soundtracker lesson by Westcott. I hope I'll find the time to exercise on it. One thing I've found frustrating about the russian clone emulators (and the reproduction of tr-dos demos, in general) is that they seem to work better on old pc (win 95 or 98) and dos based OS. The letter by Ilya Palopezhentsev on interlace was extremely interesting but, the same as you, I had never seen UnrealSpeccy functioning on my XP laptop. After

a small search on the russian sites, I've found that the ROMs linked on WoS for Unreal ([usromz.zip](http://usromz.zip)) are incomplete, and that's the reason for the "service.rom not found" error message at the boot of Unreal. I've found a link to the full version at [www.zxfiles.tk](http://www.zxfiles.tk) (<http://zxfiles.rawww.net/schemes/roms.zip>). Now Unreal is fully performing and, at last, I can play Fire&Ice on my laptop with music, fx and "NOFLIC" option set. I'm going to forward the info on the right ROMs link to Martijn van der Heide, also.

The only bug I found on ZXF08 was a typo: the "zxf07" on the header of every page.

Nando Turco, Roma, Italy

**There were quite a few typos last issue :( Luckily they've been corrected and the error-free version has been uploaded. Thanks everyone who pointed them out to me.**

Just downloaded, printed, and bound ZXF #6 - #8. They look great! I'm sure I will have a lot of fun reading them at the weekend.

Any chance for a re-release of #1 - #5 in the same compound PDF that exists for the recent ones (single page format)? I can't print the other format properly, because I have no chance to mess around with the paper feed of our department printer. Single page format is great, though, since the HP printer driver allows me to produce a proper A5 booklet from it.

Kind regards & a good weekend,  
Jörg

**This will definately be happening at some point in the future Jörg - it's just a question of time. Maybe over the Chrissy holidays...**

In the last edition of ZX Format you noted the new Commodore 64 games console and said that you had written to Amstrad about the possibility of a similar ZX Spectrum product, have you received any response?

It has surprised me that Amstrad has been so slow in developing any new Spectrum products given the level of interest in retro gaming in general and the ZX Spectrum in particular. This is especially the case since Amstrad happens to own all the required licenses and technology to produce an imaginative product. Amstrad has all the rights to the ZX Spectrum following their acquisition of Sinclair Research's computer business and they bought the rights to many Spectrum games so they could be used on the E-Mailer.

I guess you could say that the ZX Spectrum games on the E-Mailer does constitute some effort towards an retro product by Amstrad but this feature is marginal to the nature of the devise.

Yours sincerely,

Chris Lenton.

**No response from Amstrad yet regarding the possibility of a Spectrum Plugin. I think the new E3 shows the direction in which Amstrad are headed. A Spectrum toy might well be a little money-spinner, but probably not on the scale that would interest Amstrad. Another possibility is that Amstrad could sell or license the right to produce such a device to a third party, which might be a more realistic expectation. In which case it will probably be up to potential developers to make Amstrad an offer.**

Personally I would love to see such a device hit the market. Quite





**apart from simply seeing the Speccy get a little new mainstream publicity, it will be really interesting to see what the DIY hardware enthusiasts out there will be able to make of/make with the gadget!**

A few words of thanks for your magazine which I discovered by chance a couple of weeks ago while looking at the Pocket PC version of the Lords of Midnight and which in turn led me to discover Spectrum emulators for the Pocket PC. Wonderful thing, the Internet.

After a brief flurry of downloading and printing I am now in possession of the entire ZXF collection and what a pleasure it is, I wait with eager anticipation for the Christmas edition, it takes me back to the 80's and looking forward to getting my hands on the latest copy of Crash, ZX Computing and the like.

I first stumbled onto the Spectrum emulation scene about 5 years ago and ZX32 quickly established itself as my emulator of choice, I see from your publication that things have moved on apace, I will have to put aside some time to assess the latest offerings. For the moment I will continue to look at emulators available for the IPAQ, I have already given PocketClive a brief test and yesterday installed SpectrumAnyWhere, no doubt I will soon look at the other offering - the Sinclair Spectrum Emulator. Perhaps if I put some effort in I could produce a comparison of the three, is this something you might be interested in publishing in a future edition, let me know?

In the meantime ZXF has re-awakened my interest in the Spectrum scene and simultaneously re-opened an old wound(!) from a few years ago when I discovered that my mother had put my entire (pristine) software

collection in a jumble sale, oh well, there's always eBay.

Regards

Nick Elliott

**Definitely interested in that article Nick. And welcome back to the scene :)**



## NEW TO THE SPECTRUM SCENE?

The essential sites you need to visit.

**[www.worldofspectrum.org](http://www.worldofspectrum.org)**

The cornerstone of the community: emulation, discussion, downloads and online gaming.

**[www.spectaculator.com](http://www.spectaculator.com); [www.ramsoft.bbk.org](http://www.ramsoft.bbk.org); [www.worldofspectrum.org/emulators.html](http://www.worldofspectrum.org/emulators.html)**

You'll be needing an emulator to play those games on...

**[www.the-tipshop.co.uk](http://www.the-tipshop.co.uk)**

More tips, hints and pokes for those games than you can shake a pointy stick at.

**[www.ysrnry.co.uk](http://www.ysrnry.co.uk); [www.crashonline.org.uk](http://www.crashonline.org.uk); [www.sincuser.f9.co.uk](http://www.sincuser.f9.co.uk)**

The online editions of all your favourite Spectrum magazines: YS, CRASH & Sinclair User.

**<http://raww.org/>**

Spectrum news from around the world. Constantly updated!

**[www.sinclairfaq.com](http://www.sinclairfaq.com)**

All your further Spectrum questions answered.



## Kevin Bennett gets his own section and, in his quite inimitable way, takes a look at some ZX goings on...

### ORSAM 2004 - 06.11.04: Norwich

For those who didn't see me this year at the second show here is my 'I didn't attend the show' report.

The show last year was the beginning of a new effort for people who are interested in the old and its continuing. As last year's report showed, somethings never go away, but rest a while. The artistry and endeavour of people who program and develop for the Spectrum and the like leading to new interets and appreciation.

This year I have seen excellent photographs from the show that prove an idea well-implemented such as show organising is progressive in good hands. Mr Cauldwell allready has a download available from his web pages of a game that he wrote through the period of the show with an on-hand musiscian Matthew Westcott writing music that has been added to the version available for download.

[http://members.fortunecity.com/jo\\_nathan6/egghead/id7.html](http://members.fortunecity.com/jo_nathan6/egghead/id7.html)

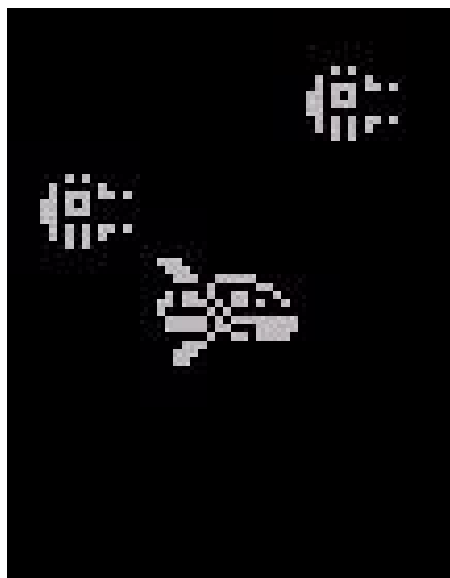
is the web page where you can find the download. Be enthusiastic in appreciation for people's efforts as it is part of the continuing of the artistry.

The game has been titled **Lunaris**. It's a thrust-like gravity game with the physical and chunky graphic attributes of Jonathan's other work. Personally I think it is an excellent human effort and heart to offer people work for their amusement and appreciation. Also on Jonathan's page are details of updating area 51 (one of his 2004 mingames enteries) for 16K as well as other developments. As in the name of his games he is a good egg.

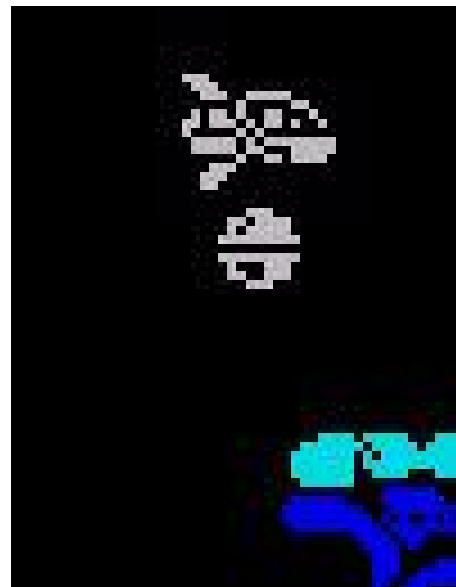
As I successfully didn't attend this year's show after not planning, and not travelling all that distance I hope to be in attendance another year.

### More Tea Vicar Demo- Why are we weighting?

A traditional scrolly shoot-em-up revisited. The animation, pitch and tilt of the craft as it rolls up and down the screen in motion is magnificent. An impressive appearance of 50fps gives weight to the feel of the game environment with the chiselled pixels giving excellent detail and form. Javier's graphics have their own sense of humour and make the game more than worth its current weight... in gold :o)



The excellent thing about the game graphics is that they are small and well-defined little images from very few pixels that carry the idea of their detail in effective animation. Here is an early example.



After a quick blast from the first few alien waves without dying I think things are designed to task form the start. A couple of power up icons find you with a gun drone that aids your game start significantly. As with all demos you need to work things out as you go along. No instructions makes for an interesting experiment.

A left to right scrolling shoot-em-up with the maturity of being part of current and continuing development in the 21st century. I am sure that only myself and Sir Clive believed the Spectrum would continue and mature. A recent example was Rough Justice, a redefinition of Spectrum programming in its effective simplicity, a masterpiece in its own right. With More Tea Vicar being a little more traditional in look and feel it doesn't disappoint, will the Vicar be asking to be passed another biscuit? I have been playing this demo as in progress for a number of months and await a final version with anticipation.

It would be nice to see a weapon select icon showing the next avaiable weapon somewhere on





the screen. Other than that I am sure that the music score will be an excellent additional element.

### All hail to the caffeine Monster-Gasman / Hooy-Program / AY-Riders

Many demos including those mentioned: [www.zxdemo.org/](http://www.zxdemo.org/)

Impressive teeth jiggling amongst the noise of the madness of a 'shrpNd mNd'. I liked it :o) Excellent use of what was in the 80s & 90s called white noise from the Spectrum AY sound chip. Definately late night groovy big energies that drag your bewildered mind along the journey of the beans. Superb arrangement of the sound chanel and voices for a big sophisticated sound.

In contrast a more hippy trippy tune...

### Flying with never noise- C-jeff/ brainwave & mimic

An amusingly light environmental piece of music, like notes of life and living. Something of seasons and something of the big continuing of its energies in motion and of physical being. More SID-like AY sound that is refreshing to hear with airy and floaty main theme, but not as sophisticated as some in arrangement. The instrument of the main theme is excellent and the heart of the piece.

[Demotopia music offers AY downloads or .tap emulator files]

### Alana Truman - Dr. Andrew Broad

Yahoo's ManicMinerandJetsetWilly site has an interesting and possibly crazed contributor with this his latest download. So far showing as an excellent reworking and modification of someone elses work of 20 years ago or something

:o) Who was Mathew Smith anyway???

After downloading and having a play with his creations I couldn't work out the madness of it all. They play well and are themed intruigingly....

Those who defined Manic Miner as a daily part of their lives like the caffeine monster should be impressed.

### Staring Lance Wilkinson

The first screen of Alana Truman - Staring Lance Wilkinson is 30 Ramsay Street and looks like the product of a crazed mind to me. The best starting option looked to be the red blocks to the left of the screen. These are like the ManicMiner dropping platforms you jump on. A White square with a red measure that drops until empty when stood on needed well-practiced 20 year jumping skills :o).

This, my first time at playing, I found my way up the left of the screen to try and collect the flashy things that initially look like switches. There is something that captivates about the integrity of the effort of the realisation in the game that makes me want to see what it is all about. Andrew's previous efforts are also available from:

<http://games.groups.yahoo.com/group/manicminerandjetsetwilly/>

### The end of the Mingames competition for 2004.

<http://www.ffd2.com/minigame/>

My aim was to create interest for the event in the last issue. This as intended showed no intent of swaying opinion but was fun and to inform.

A late Spectrum entry was **4K Race** from **Paolo Ferraris** and his

team of programers.

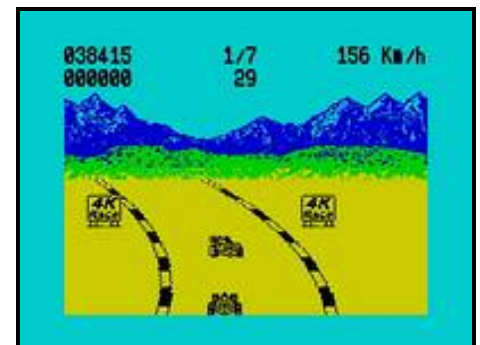
Before voting I sent an email to Paolo and received an interesting and interested reply. This ended up the winner in the 4K catagory and a fun little race it is too. The following text is a small review and then the email text.

### 4K Race

Code and manual: Paolo Ferraris ([pieffe8.at.libero.it](mailto:pieffe8.at.libero.it))

Graphics: Luciano Costarelli

Engine sound: Mario "Chrome" Prato



The above team of people have written an immediately impressive, smooth little racing game with engine sounds, scrolling track, nice little trees and road signage advertising 4k race. There is even space for a colourful skyline scene and a title screen that is colourful and impacts with simplicity.

I think I would like to have a 4K computer although word processing could be difficult. Err.... I errr... People for a modern joke who are naturally stupid due to advanced training would fit their minds easily into a 4K document!

The sounds makes everything move with time boundaries to beat to earn extended play. The car is entirely rear driven and holds wildly to the road making an



experience like **RoadRace** from Ocean released on Your Sinclair magazines Cover cassette in 1987.

Excellent animation and little details make this an impressive 4K racing game that is like a little child of Spectrum history in its finesse. A sneaky extra from Mr Ferraris and his friends have worked well in the team and 4K race is a sneaky and brilliant diversion of 4K maximisation, pace and playability against the other brilliant entries and the 4K prowess of World Empires and Mr Cauldwell.

#### An email conversation piece with Paolo Ferraris

Kevin Bennett: A reply from a coder... sometimes a mysterious and unknown breed! A pleasure to offer comment as it is to experience the work of other people.

Any comments that you would like to make that I can offer with a larger text to ZX[F] in hope of publication? :o)

For example influences, the insanity of broken routines whilst sQueeasing yourmind into 4K. Anything amusing or irrelevant is also human too.

Paolo Ferraris: About insanity, I guess that there are no so many things as insane as writing, in 2004, a game for a 8-bit computer, and using only 4k of the available memory.

Well, that's not really true. The size of code and graphics is about 5.5k, heavily compressed into 4k. The game uses 80 of the 128k of RAM. Most of them are tables and shifted graphics. There are 8 copies of each sprite in the memory, each of them shifted by one pixel, so that putting sprites on the screen is faster.

This was my first experience in the 4k category. In the 1k cat, graphics are at a minimum to have the necessary space to code a complete game. So I always did everything by myself. In the 4k cat, since there should be some good graphics and I am not good at that, I asked Luciano's help. Mario helped me with the engine sound.

Kevin Bennett: Perhaps a release of this game could be interesting as a compilation with other little efforts or as an extended release. Events like this I think are helping people blow the dust off their old Spectrums.

Paolo Ferraris: There are a lot of things that I wanted to include but that I had to leave out. The game can probably be optimized a little more to fit something more in 4k. An extended version is possible. Unfortunately I don't have so much free time now. So I don't know if I will ever do any of those two things. We will see.

#### Vladimira- Fikee



The worlds of exploration and battles of the quest games has been well explored right up to present fantastic 3D technology versions. There was even quite a good one as a type-in called something like Orc Mountain untold generations ago.

4K is a challenge and always an

interest to see what crazy people can do with their minds. I for example have no mind :o)

On my emulator the game character moves slowly. The starting screen had nice flowing blue water that made me think someone had squeezed a nice ocean in there or something. This pace of game needs plenty of coffee and the eons of time it took questing on foot.

Not too different from other efforts of this kind, but I liked the simplicity of applying the game idea with little graphical touches for those who like a meandering game play. The usual cities, collecting things and fighting based on a path of the warrior's experience.

This was also a last minute sneaky addition I found amongst the increasingly excellent titles from other 8-bit computers.

<http://www.ffd2.com/minigame/>

Take a look at the votes and results page for all the details. Me I didn't vote this time, woops I missed the deadline. I hope that the interesting work all continues beyond the contest that should see interesting developments.

Again, I would like to thank the organisers for they hold our teeny weeny universe :o)







# Platform Games Designer

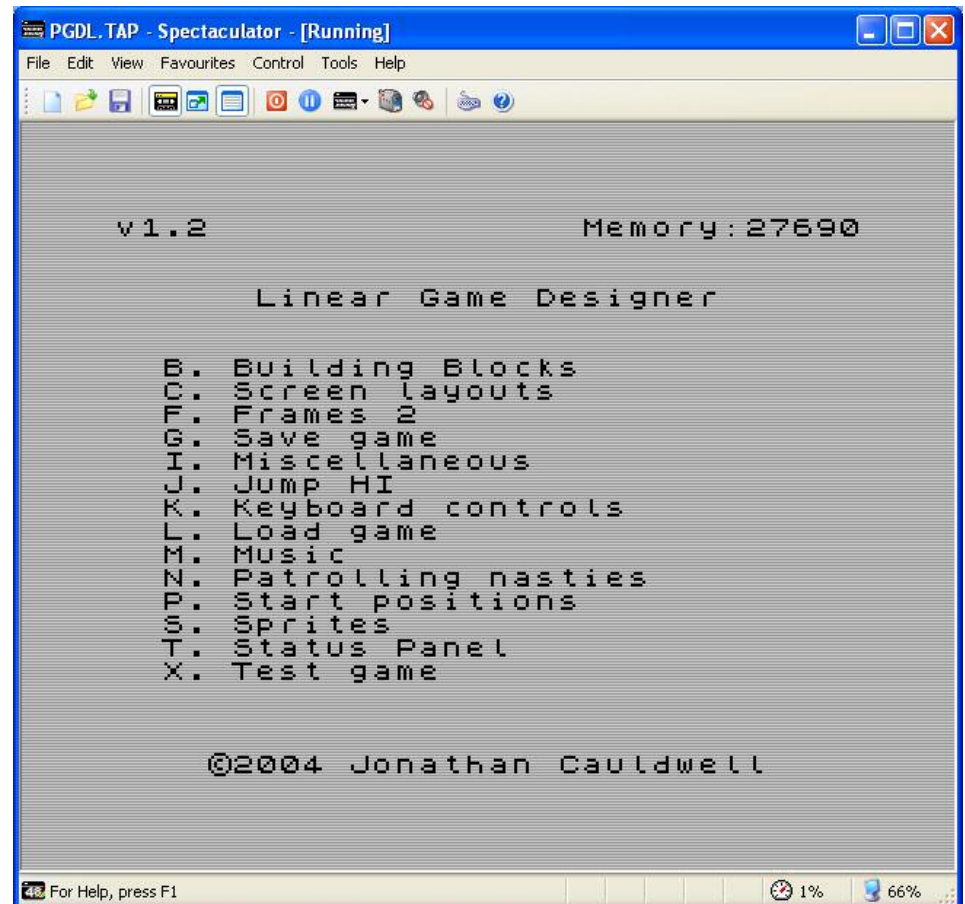
Author: **Jonathan Cauldwell**; published by **Cronosoft** Price: **TBA** Reviewer: **Colin Woodcock**  
 Website: **www.cronosoft.co.uk**

Honestly, it's ridiculous. I can't remember being so excited about a new Spectrum release as I have been about Platform Games Designer since... well, I just can't remember a time. Perhaps the release of PAW is the nearest benchmark. In one sense it really doesn't matter to me whether PGD turns out to be any good or not because I've enjoyed the anticipation so much.

But now the wait is over and it's time to be judgemental. Well I'm going to give my verdict straight away: I love Platform Games Designer and I can see an alarmingly large portion of the Christmas break being spent on it. It's one of the most addictive pieces of Spectrum software I've seen in a very long time.

And I'm starting with that statement because I do have improvement suggestions to make and I want everyone to be clear that these don't distract me from thinking PGD is just fabulous. But more on them later.

First of all, there are actually two versions of PGD - I'm not clear at the moment whether these are to be sold as one package or separately. The **Linear Designer** allows you to create games where you must collect a number of objects in a room in order to be able to pass onto the next level. Think Manic Miner. The **Explorer Designer**, on the other hand, allows you to wander around, from room to room as you damn well please. Think Jet Set Willy. If you're a MM/JSW fan that will no doubt please you a great deal. If, on the other hand, you frequently find yourself wandering what on earth all the fuss is about this genre of game, you might find your spirits



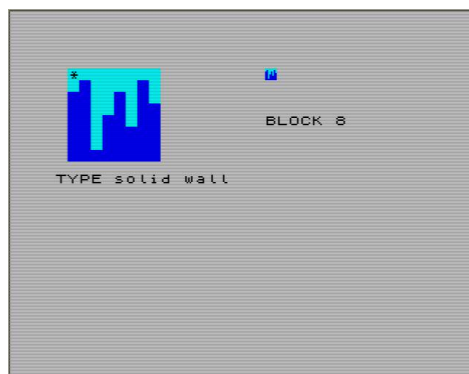
deflating ever so slightly at this piece of information. In fact, the similarities between the MM/JSW games and the parameters of PGD are many. You create objects to collect and magic doors that open on their acquisition. You create 'patrolling nasties' that move around on pre-determined paths and kill you instantly with their touch. And you can create crumbling platforms and conveyor belts. All ala MM/JSW.

But of course you don't actually have to create any of these if you don't want to (well, ok, the doors you kind of do need). And therein lies the key. Stop thinking about MM/JSW and start thinking about what you can actually do

with these tools and you'll soon find the software allows an immense variety of environments.

For starters, the graphical possibilities are quite considerable. You are given an endless number of 'blocks' - basically 8x8 character cells - from which to build your rooms; you design these in pretty much the same way that you would design UDGs except that you also choose the block's properties (solid block, platform, conveyor, object, etc). Then in the screen layout area you simply select the blocks you want and drop them in place. It's as simple as that.

For the main 'hero' sprite you get



The block designer.



The screen layout tool.



The sprite designer.



Bits 'n' pieces.

16x16 pixels to play with and 8 frames of animation - that's actually 16 frames in total because the hero uses a different sprite for walking left as s/he does for walking right. The patrolling nasties also occupy 16x16 pixels but only get four frames of animation. I'm guessing that you could use a patrolling nasty as an animated 4 character block if you were to restrict its patrol route to a static location (eg, for a crackling fire), but I must confess I couldn't for the life of me manage to get the patrolling nasties screen working (perhas because I imported a game designed on an earlier version of PGD).

Which brings us to the wish list. This divides nicely into two groups - features which I would really like to be added and features which would be just nice if added. Both lots, of course, would be likely to take a considerable chunk out of the memory available to your game if implemented. Do we actually mind about that? I have to say I wouldn't mind at all - I'd rather put together a more 'deluxe' game that had fewer levels than a very large game without the bells and whistles. But that's just me.

#### **Features which I would really like to be added.**

**Sound effects.** There are none. You can put together a tune in the music editor, which is nice, of course, but I would far rather have no music and spot sound effects. Obviously this is easier said than done, since making a sound effects editor would probably not be very 'cost effective in terms of the memory required to create it. A compromise would be to create a 'bank' of pre-coded effects. PGD could hold, say, 10 of these at a time, which you could assign to specific events (jump, walk, pick up objects, etc), whilst additional 'banks' of effects

could be held on cassette and loaded seperately.

**Slopes.** It would be really nice to be able to walk up and down slopes. As it is surfaces are either horizontal or vertical.

**Pass behind objects.** It would be great if you could define blocks as 'pass behind' to give the illusion of depth - for example pillars the sprite moves behind or walls with windows in them (like Dan Dare).

**Thrust.** I'm thinking JetPac here - or Bombjack. A sort of 'superjump' where vertical movement continues as long as the jump key is pressed. Somthing like that.

#### **Features which would be just nice.**

**Drop.** Although it might appear at first that there can't be all that much use for a 'drop object' function in a platform game, it did become an issue when I was designing my little Father Christmas game. Think about it...

**Shoot!** A gun would be great. But I imagine it would be quite hard to include, since you would then need to define the graphics for both the bullets/laser beams and the explosions for all the various sprites and blocks.

**Block browser.** Once you've created a few blocks, looking through them one at a time can be a little difficult to get your head around. All that white space at the bottom of the screen could be put to good use by using it to display a scrolling line of all of your blocks to select from. I reckon.

So PGD is superb, but it could be even better still. And if there is ever a version two I think I'll find myself getting all excited in anticipation yet again. In the meantime I think PGD could be significant enough anyway to initiate a whole new era within the Spectrum community. Something like an 'Annual PGD compo' sounds in order. What do you think?





# Wolf 2004

Author: **Invaders** Price: **Free** Format: **TR-DOS** Reviewer: **Colin Woodcock**

Download: <ftp://ftp.cc4.org.ru/pub/8bit%20game/>



The original **Wolfenstein**, much as it tried to create an atmosphere, didn't. Perhaps we thought it did at the time, but when **Doom** came along a wee while later we realised that Wolfenstein was something of a Dad's Army in the fear department. Compared to Doom, which I recall very vividly, my memory of Wolfenstein is a little hazy. But I do remember it; I do remember being very impressed by it. I didn't play it all that much, however, because once I got past that initial 'wow' factor I found it all pretty much of a muchness.

**Wolf 2004** was the winner of the **Chaos Constructions 2004 640K ZX Spectrum Game** category and, more or less, it's kind of what you

might expect a competent Spectrum version of Wolfenstein to look like. It is, of course, an extremely impressive piece of coding - clearly well-deserving of its success. The animation as you wander round the various mazes is just ridiculously smooth and it all takes place to a full-bodied AY backing track. I spent quite a while wondering around this 3D environment just marvelling at the skill.

But then I stopped playing - not because the implementation is no good (actually, it's amazing), but

because it's - well - Wolfenstein.

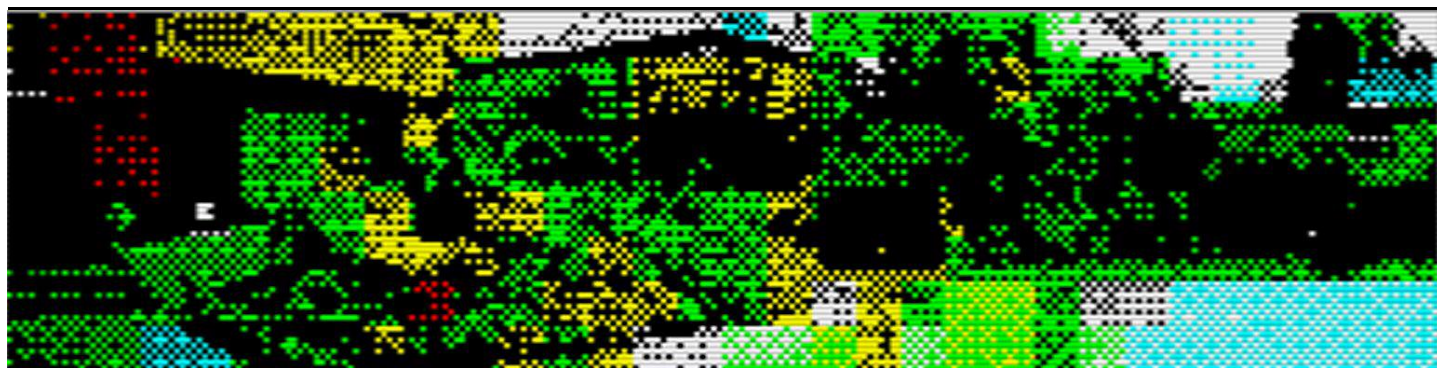
So if you liked Wolfenstein, you'll like Wolf 2004. As usual it's that simple.



**Leningrad's Youth Palace - the venue for CC2004**

# Manic Miner: Neighbours

Author: **Andrew Broad** Price: **Free** Reviewer: **Colin Woodcock**  
 Website: <http://www.geocities.com/andrewbroad/spectrum/willy/>



Ok. I admit it. I'm beginning to worry about Dr Andrew Broad. The obsession with **Manic Miner** and **Jet Set Willy** I could assimilate. The integration of Smithsonian and Tolkienian themes in **Manic Miner: The Hobbit** / **Jet Set Willy: The Lord of the Rings** I could manage. I could handle the fact that my life would have to be completely dedicated to the works of Broad if ever I was actually going to complete a single level of one of his games. But this release takes

things just one step too far.

**Manic Miner: Neighbours - Allana Truman**, the latest of Andrew's MM/JSW titles, is dedicated to sci-fi geek Allana Truman, Andrew's favourite Neighbours character of all time. In the game you play Allana's Boyfriend Lance Wilkinson and - just as it was in the 'real thing' - you have to perform seven labours in order to win Allana as your girlfriend and then sort a few extra head-scratchers in order to

say ta-ta to aussieland and hot foot it the pair of you up to America. Yes.

As with all Broad MM/JSW games, MM:N-AT is difficult to a degree that makes you want to squeeze lemon juice in your eyes. This time round we do have an 'easy version,' however (you might complete it before you reach retirement age), and an infy lives poke in the README file. All I can say is bring back Madge Bishop.

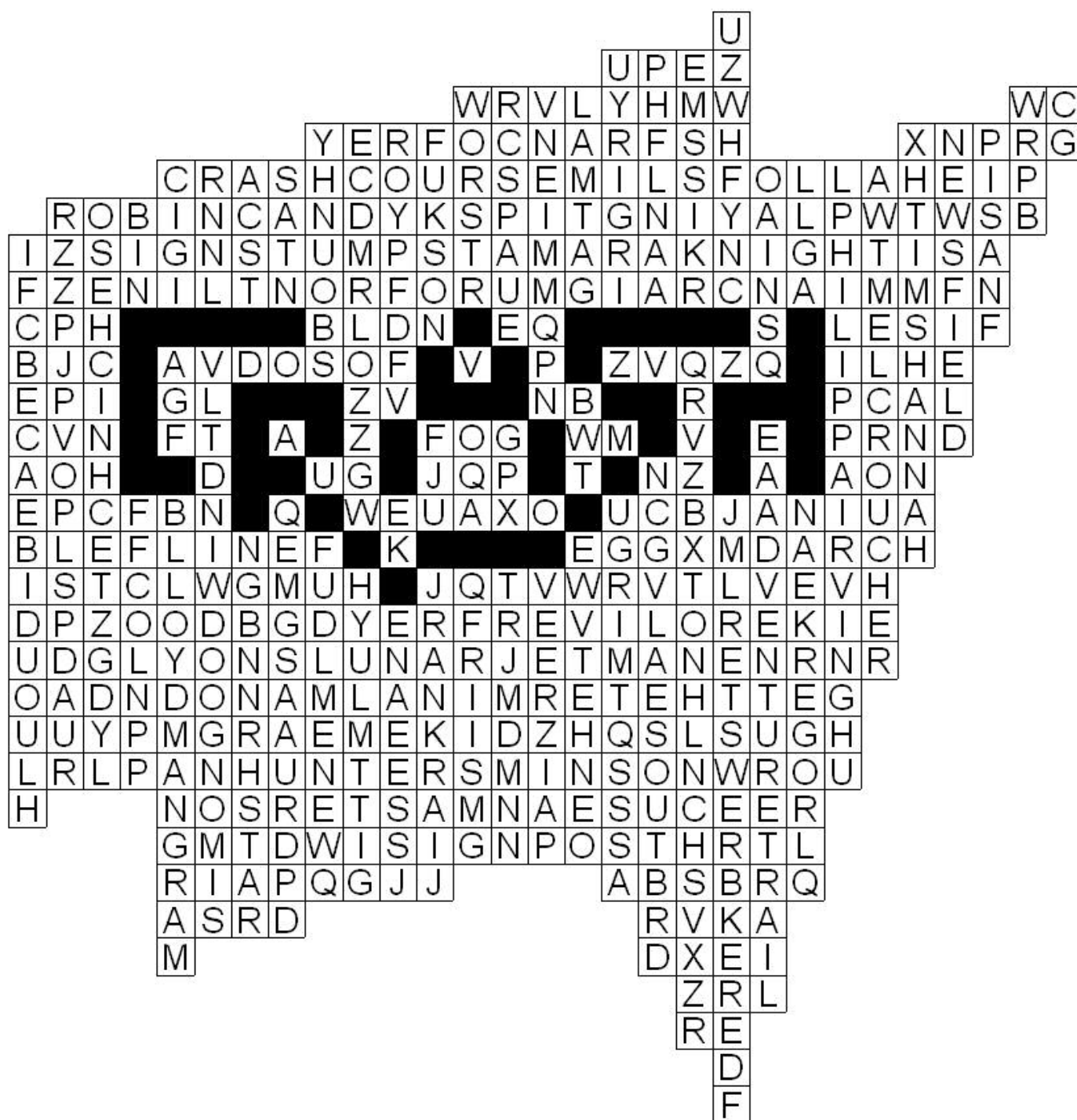






# THE CRASH WORDSEARCH

It's that time of year again. Stuffed with turkey on Christmas day you'll be needing something that can be done from the comfort of your armchair. For all those CRASH fans feeling unloved with the advent of a new YS, here's a little wordsearch to help ease the pain. Thirty words from the 'classic' era, including writers' names and feature titles. Enjoy!



# SPECTRUM +3 SOFTWARE AND SPARES



## HARDWARE:

**3 inch 180K disc drive for +3.** Reconditioned with 3 months warranty £10 each. These drives can be supplied with cream coloured facias in place of the black facias if wanted -- just ask.

**Belts for the 3 inch drive** £1 each. New. Loads available. (Just send a S.A.E. with order to cover postage -- correct for up to 20 belts).

**Monitor lead** to convert +3, +2 and +2A to use an Amstrad CTM644 colour monitor. £4 each.

## 3 INCH DISCS:

**3 inch Blank discs:** Second-hand good quality Amsoft or Maxell only supplied. All have been reformatted, verified and relabelled. 80 pence each or £7-50 for ten. Larger quantities available 100 for £65, 1000 for £450.

Sometimes available new 3 inch discs at £1 each, please ask.

**JOHN R P KING**

**26, GUYSFIELD DRIVE, SOUTH HORNCHURCH, RAINHAM, ESSEX.  
RM13 7AJ**

**TEL: 01708 630477 *john@pcwking.freemove.co.uk***

***www.pcwking.freemove.co.uk***





# WHAT I WANT FOR CHRISTMAS...

We're a spoilt lot in the Spectrum community. Yes we are. To enter properly into the spirit of Christmas, however, I've decided to turn a blind eye completely to all the things we already have and dream about loads of stuff we haven't. Treat this as an ideas pool if you will, or treat it as the rantings of a thoroughly ungrateful teenager. The teenager bit I can live with rather well, actually...

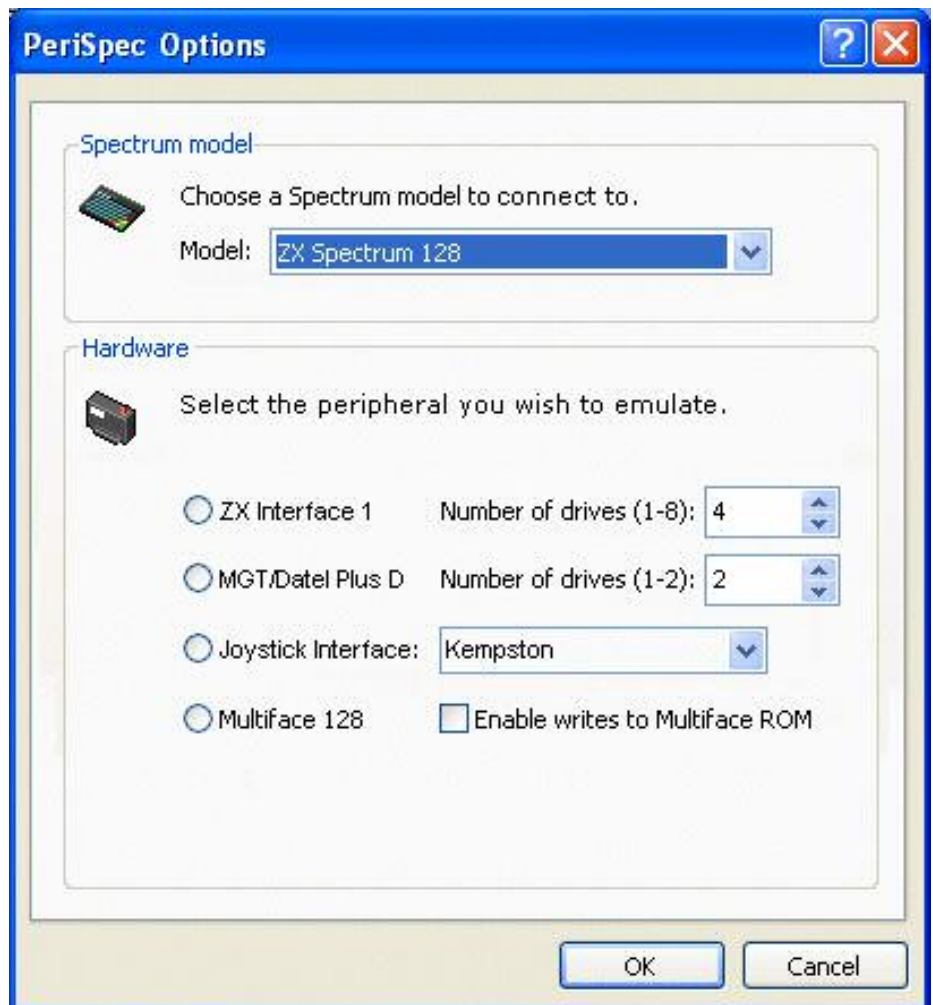
Christmas morning 2014. The kids are up, pulling away the Shockwave wrapping paper from their virtual presents...

Nothing much has changed in the last ten years. Computers have got more powerful, but still can't differentiate between a message from your mate about the football last night and one offering you a choice of mortgages, pornography and degrees - all for a bargain price. Terry Wogan is still chuckling away on Radio 2 in the mornings. The UK is still pondering over the Euro (America has already joined). Things are pretty much of a muchness in the world.

Having said that, things have really moved on in the ZX Spectrum scene. The 'Retro Bubble' continues to boom - City experts are still arguing over how long the cost of Ultimate titles can continue to rise at their current rate. Ebay have formally adopted the ZX80 as their official unit of currency. And emulation has been pushed further than it's ever been pushed before. Here are just a few of the latest developments...

## ElectroSpec

Version 2.5 of the first ever Spectrum emulator to emulate at the level of electronic components actually allows the user to unscrew the virtual case and fiddle with the components inside. It's a feature that the average user is unlikely to find interesting for too long; de-



soldering resistors to see what happens when you turn the power back on has a rather limited addictiveness value, although I do quite enjoy being able to pull a virtual joystick interface out of my emulated Spectrum when I'm cross with it. For those of us with a little electronics knowledge, however, the temptation to design and test an all-new Spectrum peripheral

without actually having to do any of the fiddly real stuff is what it's all about, of course. Already an online archive of peripherals old and new is being grown at WoS, the most recent addition being the ZX Chunkey Visualiser 2 with its 3 inch LCD screen - all powered from the Spectrum's own power supply.

The major update to version 2.5 is support for the increasingly

popular *PeriSpec* (see below), so you can now actually test your virtual creations on a real Spectrum via a *PeriSpec* cable without having to go anywhere near an actual electronic component. And if you do want to create your peripheral in the flesh, so to speak, *ElectroSpec* will also export your creations in the standard .elc format that you can now upload to the many online 'manufacture-on-demand' websites. A bit pricey, for sure but lovely in every single sense of the word.

### PeriSpec 4.1

What would the Spectrum world be like without Kramer Hurley and his grand little hardware emulator? We've whatever enlightened Spectrum fan it was who turned issue 9 of *Retro Gamer* around in the Colchester branch of WH Smith ten years ago to thank for all this; the story of how the sight of the *Your Sinclair* logo nestled in amongst the PC publications restored Mr H's memory after nearly 16 years of amnesia is one that's earned its place in Spectrum history many times over. *PeriSpec*, of course, is his way of saying thanks. And it's a reminder to us that you never know what that newcomer to the forums might be able to bring to the community.

Version 4.1 of the program that connects together your Spectrum and PC via the 'Perispecable' edge connector to parallel port cable (available to buy from the *PeriSpec* website, where you can also download a very readable guide to building your own), enabling your PC to mimick a whole range of Spectrum periphery, is mostly a collection of bugfixes and tweaks to the user interface. One important new addition to the download distribution, however, is the 'bootmaker'. At its heart, you see, *Perispec* is actually quite a straightforward little piece of programming that doesn't really

require any of the bells and whistles of modern 10GHz PCs; it will run quite happily, in fact, on old PCs still running Windows 9x. The boot program allows you to custom-build a stripped down version of *perispec* that emulates just one peripheral, such as a ZXCF drive (with a virtual CF card) which starts automatically from DOS on boot-up. It's a bit like those old boot disks you used to create a very long time ago to run games from DOS that required all of your available memory. When *Perispec* runs in this way the program becomes pretty much the only thing your PC is doing.

What's the point of this? Simple. It gives you a use for that old laptop you've got lying around which was long ago put out of action by your PDA but which you just can't bring yourself to part with. Build a boot version of *Perispec* on your current PC, install it to the old laptop (you might need to dig up an old USB floppy disk drive to do this), connect the two together and hey presto - you've got a laptop that thinks it's a ZXCF drive the moment it's turned on. Or a Plus D. Or an Opus Discovery. And so on. Throw the whole lot into a custom box - Speccy and laptop together - connect up a standard keyboard and just like that you've got yourself a rather impressive mod without having to do any of the messy electronics stuff. Nice one.

### CRASH PDF

The CRASH PDF project is now at issue 59, rather fittingly. How those guys manage to motivate themselves to keep going is beyond me, but I now have five years' worth of classic magazines on a 10 GB SD card for browsing on my trusty PDA.

Ever since its relaunch in 2006 as a modern games magazine, CRASH fans have been crying themselves to sleep at night at the humility of it all, but one good thing to have come out of this, of course, is the

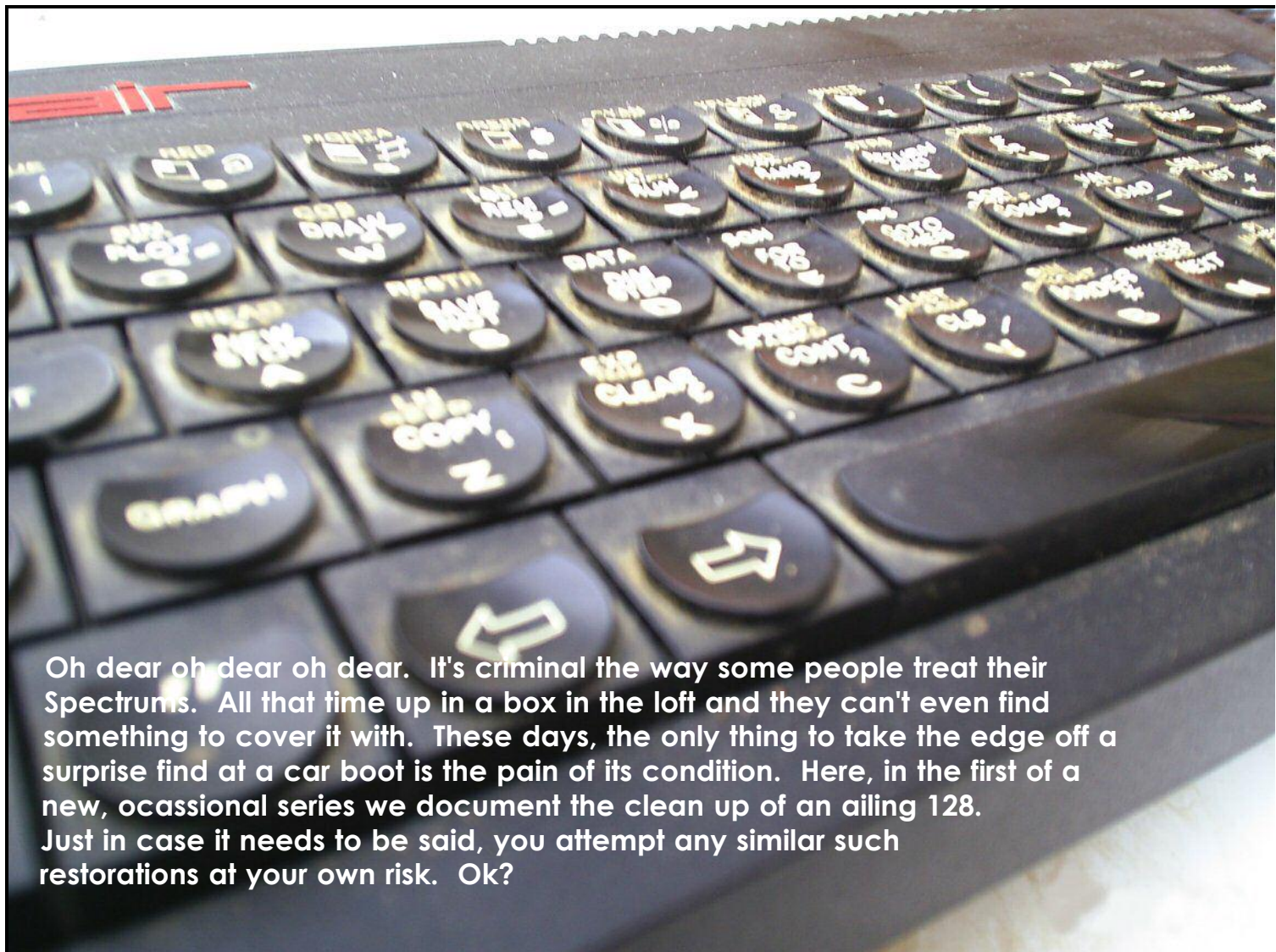
new popularity of the Jetman picture strip. The new cartoon series featuring David Jason is due in a couple of months [*shouldn't that be a couple of mums?* - Ed] and rumour has it that the series will come with its own branded merchandise, including a range of McDonalds Happy Meal toys. Meanwhile, Kelloggs are hoping to cash in on the Jetman craze through a deal with Rare (aka Ultimate) that will see tiny Speccy emulators hardwired with the original Jetman game in special packs of Frosties from February onwards. The little emulators are said to measure 5x4cm and come in classic Spectrum black plastic (a nice attention to detail which, no doubt, will be lost on Frosties consumers) with a 4x3cm LCD screen.

### The future

As we move increasingly towards the CDP (Consumer Defined Product) economy the forecasters have been telling us to watch out for for the last five years (it all started with Cafe Press, apparently), the way forward for the Spectrum scene has never seemed more open. The only certainty of all of this is that this flexibility won't be cheap. But neither will be it obscenely expensive. And for damn sure it's going to be a very great deal of fun. We've all been using Print-on-demand technology for our home-grown books and magazines for years now, but with the more recent innovations such as manufacture-on-demand and (my own personal favourite) vinyl-on-demand, the limits being placed on our creativity are quite literally vanishing before our very eyes. So expect surprises and expect them to be pleasant. The days of beige computing and the imposition of boundaries are long gone. Does anybody miss them? I didn't think so.

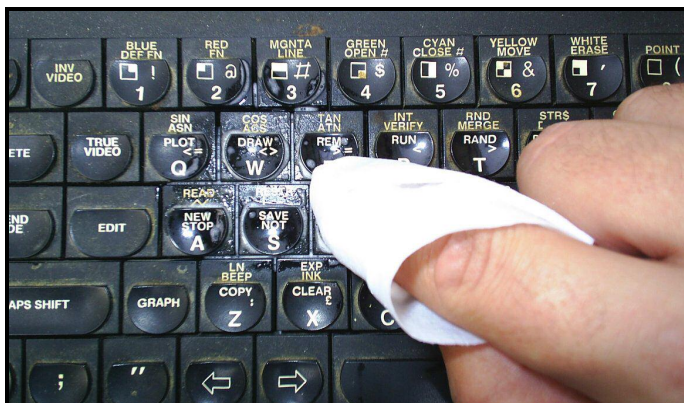


restore



It's enough to make you weep. This poor old thing looks like it's been left to rot for ages. You'll notice the CAPS LOCK, TRUE VIDEO and GRAPH keys are all in the wrong place too. Luckily the computer does still work.





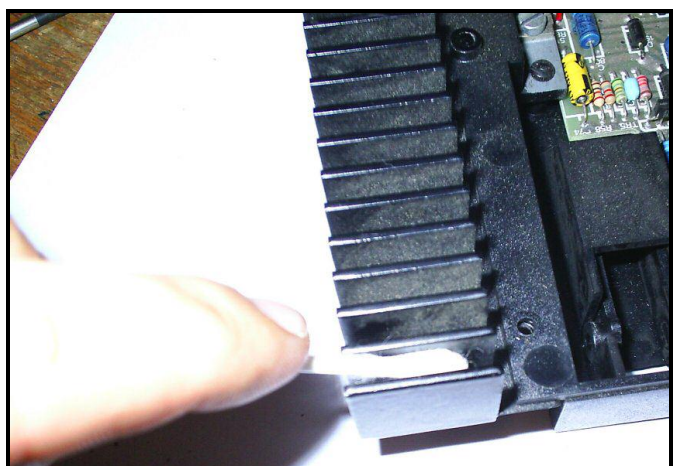
Apply a wet wipe to the keys. Yes, it will leak through the gaps, but there's a rubber mat underneath to protect the membrane. A day or so should dry this out anyway.



Now start cleaning. I've used an electric toothbrush. Don't be afraid to apply some elbow grease. You'll see the results very quickly. Wipe off excess moisture with kitchen roll.



The keys themselves are very easily popped out with a flat-bladed screwdriver - simply push them back in where they're supposed to be.



Clean the heatsink with a cotton bud. Wrap it in another wet wipe for extra cleaning power. Here I've removed the top of the case to get right through the slats.



Finished! Doesn't she look grand!





# SPECTRUM STORAGE SOLUTIONS

**Never mind Retro Gamer. Some of you might or might not be aware that Micro Mart magazine has supported the retro scene for quite a few years now. I've written a few Spectrum-related articles for the 'Retro Mart' column myself and for those of you who missed it first time around my recent two-parter on Spectrum storage solutions (issues 820-821) is reprinted here.**

## Cassette tape

Think ZX Spectrum and memories of loading in games from a tape recorder won't be far away. Oh, what fun we had back then. The wait... the noise... the crash... the rewind... the sheer and utter frustration. And yet, over twenty years later, the subject of transferring 48K's worth of colour-clashed shoot-em-up from an audio cassette to an over-heated Spectrum is still a focus for genuinely fond discussion within the community.

Why the fascination with tape loading? Simple: cassettes could be copied, and you didn't need expensive equipment to do it with. Such was the prevalence of cheap, tape-to-tape midi systems in the 80s, copying games was just so easy there was no way it was never going to happen. Games were practically hard currency in the playground, which meant they were a way of making friends. And since making and keeping friends is basically what teenage life is all about, it therefore happened quite a bit.

Loading a brand new, fresh-out-of-the-shrink-wrap game into your Spectrum was one thing, but loading a third generation copy of Bounty Bob from an over-stuffed C90 was altogether quite another. Such was the ubiquity, therefore, of the 'R Tape Loading Error' message within the Shared Spectrum Experience that practically a whole sub-culture grew around the art of getting games to load in. In recent years it's even been suggested that a mystical aura surrounds the

Spectrum whilst a game is loading and that this field can be disrupted by anything from next door's Hoover to your mother entering the room to simply not looking at the computer enough...

## Looped Tape

In the year following the Spectrum's launch Sinclair Research released the Interface 1 (IF1) and Microdrive expansion system; the former an interface styled in the same curves of the Spectrum that screwed into the base of the machine, the latter a looped tape system not entirely dissimilar to the old eight track music cartridges. The added functionality of these devices was 'phase two' of the Spectrum's planned development, giving life to the previously redundant drive commands (CAT, FORMAT and so on) printed below the Spectrum's number keys.

Microdrive cartridges were tiny: 30x42x5mm; they contained 15m of 1.9mm tape driven by a rather noisy little motor at the breakneck speed of about two metres per second. They could typically store between 90 and 100KB of data, of which 6K could be loaded in close to four seconds. And up to eight drives could be connected at once via the IF1, giving a total on-line storage capacity of nearly 800KB. These were Sinclair's on-the-cheap answer to the much more expensive floppy disk systems of the day, although compared to disk systems they were inferior in many ways and it's probably more appropriate to think of them as an advanced tape system.

Microdrives were notoriously unreliable. Tape that thin moving at that speed was unlikely to last forever - even the manual cautioned against expecting this - but also early cartridge design placed the rough bits from the moulding process on the inside of the cartridge case to make it look better, giving the high speed tape something pointy to catch and snag on. Not good. Nonetheless, Sinclair staked a lot on the Microdrive system, using a slightly modified version for his QL computer also. The format received extremely limited support from software developers, however, and after the sale of Sinclair computers to Amstrad it was effectively killed off.

An alternative looped tape system for the Spectrum was the Rotronics Wafadrive, an all-in-one double drive unit that accepted cartridges in 16K, 64K and 128K versions (access time decreased with capacity). Although it was slower at loading in data than the Microdrive, its lower data density made it a more reliable system and its syntax was much friendlier than the horrendous IF1 commands. But its fatal flaw was probably its consumption of 2K of the Spectrum's RAM, making it incompatible with many 48K programs. The drives didn't sell well and Rotronics went bust in 1986.

## Disk Drives

In 1987 Amstrad released the first and only Spectrum to feature a built-in disk drive - the Spectrum +3. It used a 3 inch drive system capa-

ble of storing 180k per side (you had to take the disk out and turn it over); an improvement on cassette tape, for sure, but if you already owned a Spectrum there were plenty of other options.

Broadly speaking, add-on disk drive systems for the ZX Spectrum came in two varieties. There were the all-in-one systems such as the Opus Discovery and the Timex, where your £200 or so (about twice the price of the looped tape systems looked at last week) bought you

and it too offered networking facilities and the ability to connect a standard printer (a parallel printer in this case). But instead of connecting to a maximum of eight 100K Microdrives it could connect to two standard disk drives giving potentially up to 1.6 MB of fast access storage. And it also featured a snapshot button for transferring software to disk, dual joystick ports and an inhibit button that would allow you to connect and operate any conflicting hardware you owned. It really was the ultimate

Europe, where it was rapidly copied and built into a number of Spectrum clones, it became as significant as cassette tape was in the UK. Support for the Russian clones in particular continued long after the end of the Spectrum's commercial life over here and this following has contributed greatly to the Spectrum's overall, ongoing longevity. Today, almost all new software for the Spectrum is released either in cassette tape or Beta Disk (TR-DOS) format.

### Hard disks and beyond

Of course it doesn't end there. How could it in a community of enthusiasts gifted with the ingenuity so characteristic of the Spectrum and its software? In recent years we have seen hard disk interfaces offering storage capacities previously undreamt of for the Spectrum. There's Garry Lancaster's +3e system, for example - Garry actually rewrote parts of the +3's ROM in order to maximise the use this machine could make of a hard disk, extending +3 DOS commands very significantly (you can download the new ROMs from his website if you have an EPROM blower).

Most recently of all, attention has turned to Compact Flash as a storage medium. Although this offers less overall storage than a modern hard disk at present, it's still ample for the Spectrum and it has the added advantage that the drive itself can be powered from the Spectrum's own power supply - no need for naked hard drives powered by unsightly PC PSUs; the whole thing fits snugly inside a normal plug-in peripheral case not that much bigger than a joystick interface. Sami Vehmaa's ZXCF interface, for example, offers access to CF cards of whatever capacity you want and gives you a whole megabyte of internal memory to play with too. The possibilities these systems offer are amazing and if software writers rise to their challenge there are some very exciting times ahead.



an interface and drive all wrapped up in a fancy case. And there were the Shugart compatible interfaces that left it up to you to supply a disk drive. Of the latter category, the most well known are probably the Disciple/Plus D from MGT and the Beta Disk interface from Technology Research Ltd, although their fame is for entirely different reasons.

The Disciple, released in early 1987, was an amazing product. Looking very similar to a Sinclair Interface 1 it too sat underneath the Spectrum

Spectrum interface and today on ebay they go for a small fortune. MGT went on to produce the Plus D disk interface (a cut down version of the Disciple, with just the disk drive and printer ports, and a snapshot button) and the wonderful, but ultimately ill-fated Sam Coupé computer.

The Beta Disk interface was released in 1985 and was a much simpler peripheral offering the connection of up to four disk drives and a snapshot button. It didn't do so well in the UK (I've never seen one on ebay), but in Eastern





# SOUNDTRACKER

## Part Two of AY tuner Matthew Westcott's tutorial.

So, you've followed last issue's tutorial and found your way around the tracker interface, created a few simple samples and put them together into a real tune. This time we're going to look at adding some more exotic sounds to our repertoire.

I must start off with a disclaimer though - there's no surefire formula for generating good sounds. A liberal dose of experimentation and trial and error will go a long way, and once you've stumbled across some particularly neat samples you might find it worthwhile to build up your own library through the 'save sample' / 'load sample' feature. Alternatively, with an emulator you can do what I do and start out on a new track by loading up a snapshot of an older one and going to 'clear pattern' and 'clear position', so you get to keep the sample set that worked so well last time.

Before you know it, you'll develop your own distinctive style, and every time one of your tracks is played at a demo party, people will recognise it within the first two seconds and nod knowingly at you, despite the fact that you toiled away for days to come up with something brand new and unique. (What, me bitter?)

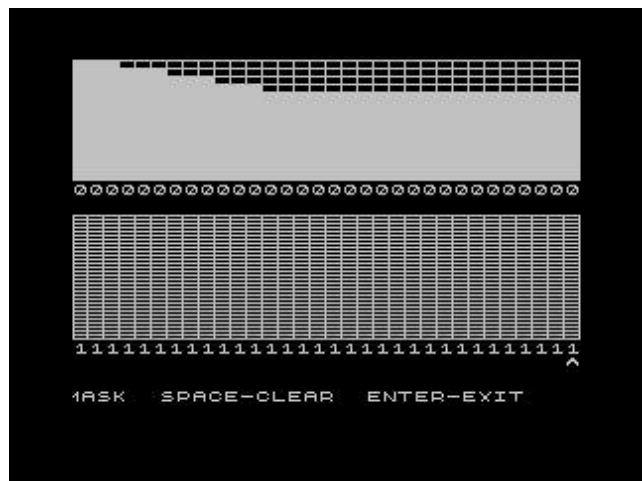


Figure 2.1

### Pitch bending

We'll start off by creating a lead instrument to play the melody of our next masterwork. Starting from a blank song, create sample 1 as indicated in figure 2.1. Nothing unfamiliar here - just a clean

sample that dies away a bit.

The new bit comes in figure 2.2, the second page of the sample editor. We're interested in the two columns on the left - well, it's just one column split into two really. This defines how the pitch of the note varies over time, just like the previous page defines how volume varies over time. Use the familiar Q / Caps Shift / O / P keys to move that fetching pink cursor, D/E to adjust the number, and M to toggle the sign between plus and minus. Reading down the columns should make it clear what we're trying to do here - we stay on the original note for a bit (all the 0000s), then shift upwards (the +0001 and +0002), downwards (the -0001 and -0002), and back to the starting point. Take a listen with the 0 key, and you should be able to make out a bit of tremolo, or vibrato, or whatever the technical term is ("wobbliness" will do for me, personally).



Figure 2.2

We want it to last a bit longer though. For this we quit the sample editor, and turn our attention to the 'Sample', 'Repeat' and 'Replen' sliders in our top menu. These work together in much the same way that 'Position', 'Pattern' and 'Height' do: 'Repeat' and 'Replen' are two values that can be tweaked for each sample. For our sample 1, set both of these to 16. The meaning of this is: "After playing to the end of the sample, hop back to frame number 16 (that's 'repeat') within the sample, and play the following 16 frames (that's 'replen') in an endless loop".

Going back to our table of pitch adjustments for a moment - you might wonder what units those numbers are measured in. They're actually adjusting the duration of one cycle of the wave, in units of hundred-thousandths of a second (roughly). A one-point adjustment, then, will be more noticeable for high notes (where the frequency is so high that one cycle is only a thousandth of a second or so) than for low notes (where the duration of the cycle is much longer, a hundredth of a second or more). You can hear this for yourself if you go into edit mode, and try playing our sample first at pitch F-8, then at F-2. (It's symbol shift to change octave, if you've forgotten.) This is something to keep in mind if you're trying to do something accurate with pitch bends, like bending exactly one semitone to sound like a guitar hammer-on - it's going to cause you an awful lot of trouble, because what works at one pitch will be way out when you try it on another note.

Let's start dropping our notes in. Set the delay change to 8, pattern length to 47, and enter these six notes (all played with sample number 1) at the rows indicated.

```
00 C-6
03 G#5
06 C-5
12 D#5
17 C#5
18 C-5
```

In the immortal words of Rolf Harris, "Can you tell what it is yit?" The final note drags on for an awkwardly long time, which reminds me that I haven't told you about rests yet. Head for row number 36 of our pattern, and press R - this inserts a rest instruction which puts an abrupt stop to the note which would otherwise go on for ever.

### Drums

Unsurprisingly, the major ingredient in drum samples is the white noise that we briefly touched on last time. The AY chip has a white noise generator that you can feed into any of the three sound channels, and you do this by resetting the mask bits on the bottom of the sample editor screen to zero, as we've done in our second sample, figure 2.3. Despite what you might expect, the lower bar chart doesn't control the volume of the white noise - that's handled by the top set of bars, just like the tone is. The lower bars actually control the pitch of the white noise.

"Hang on a moment!" you might well exclaim at this point. "The whole point of white noise is that it's a random distribution of waves of all frequencies, so talking about the pitch of white

noise is complete codswallop!" And you'd have a

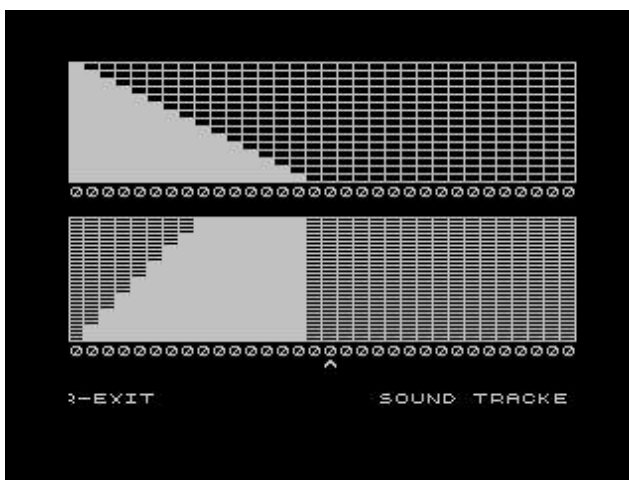


Figure 2.3

very good point. White noise on the AY is actually a bit of a fake - it's generated by randomly picking a 'high' or 'low' state for the wave at regular intervals, with that interval being user-definable. Never mind the techy stuff, though - what's more important to know is that lower values go 'tssch' and higher values go 'doosh'.

What we have here is a sample consisting of both tone and white noise, where the white noise starts off high, quickly comes crashing down to a deep point, and stays there while the sample fades out. Something like a snare drum, then. It all sounds so logical, doesn't it? Well, no. I didn't think any of that through beforehand, I just fiddled around



Figure 2.4

with values (and took a peek at the samples in the demo tune) until I got something that worked. See figure 2.4 for the final tweak to the sound - we use pitch bending to send the tone plummet-





ing down too.

In fact, this sort of "extreme pitch bending" on its own can quite successfully strip out any melodic quality from a sample and produce decent drum sounds without white noise, as demonstrated by

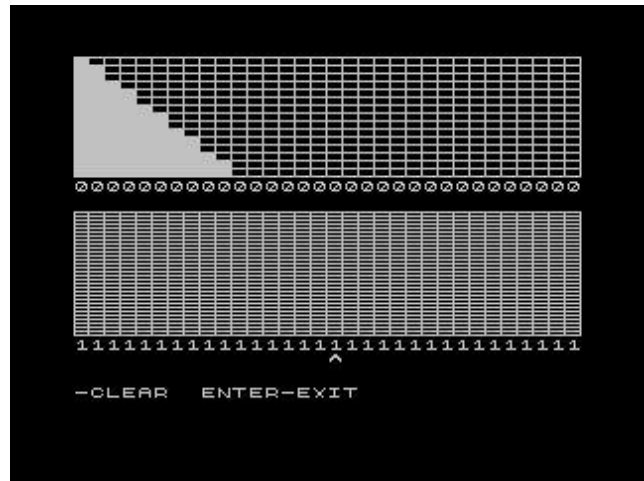


Figure 2.5

sample number 3. This is a bass drum, and therefore the intention is to go 'thunk' without any hissy white noise getting in the way - hence the white noise being masked out by the row of 1s at the bottom of figure 2.5. Turning our attention to the pitch table in figure 2.6, the tone dives downward much more rapidly this time - so far down, in fact, that if you go to the editor and try playing it at any pitch lower than C-5, it will go off the scale and re-emerge as a high note, resulting in a 'thunk-tinkle' sound. So let's not do that, then.

Finally, to complete our drum kit, we'll make sample number 4 into a hi-hat, one of those drums that seem weedy and pointless in isolation

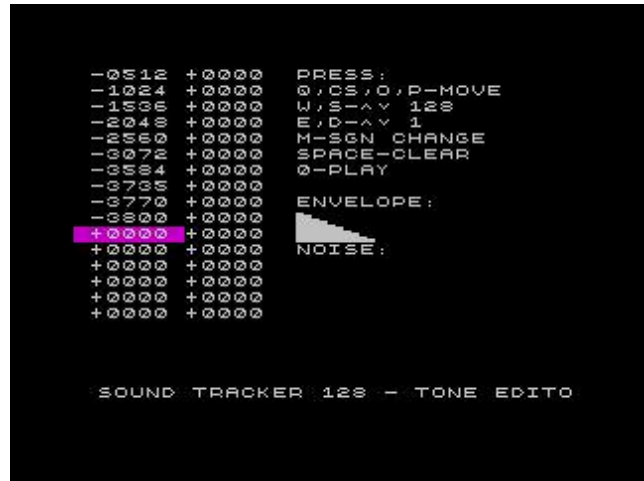


Figure 2.6

but actually give the finished track that indefinable touch of gloss. See figure 2.7 - there's no pitch bending this time, so the values on the second screen should all be left at +0000. By now you should be able to figure out for yourself what's going on with this sample. (Hint: this one's entirely white noise.)

Incidentally, the way the noise setting is attached to a sample might give you the impression that you can have several white noise samples going at once, all at different pitch settings. You can't - the white noise generator is shared between all channels, and can only be running at one pitch at any moment. If you try it, it just ends up picking



Figure 2.7

one setting and ignoring the others.

Anyhow, why on earth would you want more than one drum track? It's already tricky enough to squeeze a song into three channels, let alone bringing a chorus of bongos into the mix. This is where you encounter the real challenge in Spectrum tracking - finding creative ways to condense all the parts of the song into the limited space available - and you're faced with some tough choices. Can you spare a whole channel to do the drums? Do you combine the drums and bass into a single channel, Robert Miles stylee (bop-dmmm-tish-dmmm-bop-dmmm-tish-dmmm), leaving another one free for fancy echo effects (where you replay the melody slightly delayed and slightly quieter)? Or do you hop about between channels, inserting notes into every available gap like some sort of deranged musical Tetris? The choice is yours. But this is my tutorial, so the choice is mine, and I say we should use channel B exclusively for drums.

Here's the sequence I came up with to go in channel B. Keying in a drum track is no different from a melody track. This time we're mostly

# exp LIST

interested in the sequence of samples in the third column below, but our choice of pitch plays a part too - notice how we play the hi-hat sample at C-6, and then later at C-5. This gives it subtly different amounts of emphasis.

```
00 C-5 3000
01 C-6 4000
02 C-5 3000
03 F-4 2000
04 C-5 3000
05 C-5 4000
06 C-5 3000
07 C-5 4000
08 C-5 3000
09 F-4 2000
10 C-6 4000
11 C-5 4000
```

We want to repeat this four times down our pattern, and we can do this through the 'Move text' option in the 'Other' menu. Anyone hoping for a fancy cut-and-paste facility will be sorely disappointed here, as it's a rather more primitive 'fill in the number' affair (and there isn't even a 'delete' key):

```
From pattern (01-31): 01
To pattern (01-31): 01
First posit: (00-63): 00
Last posit: (00-63): 11
To posit (00-63): 12
From channel (A to C): B
To channel (A to C): B
Are you sure Y/N?: Y
```

You can only copy data one channel at a time - the 'from channel' and 'to channel' choices mean 'copy from channel A to channel C', not 'take the block of data spanning channels A through C and copy it to the new location'. Hey, it caught me out when I first started on Soundtracker. Once.

That's half the job done - now run through it again to copy the chunk spanning rows 00 to 23 into position 24, and we've got the whole pattern filled.

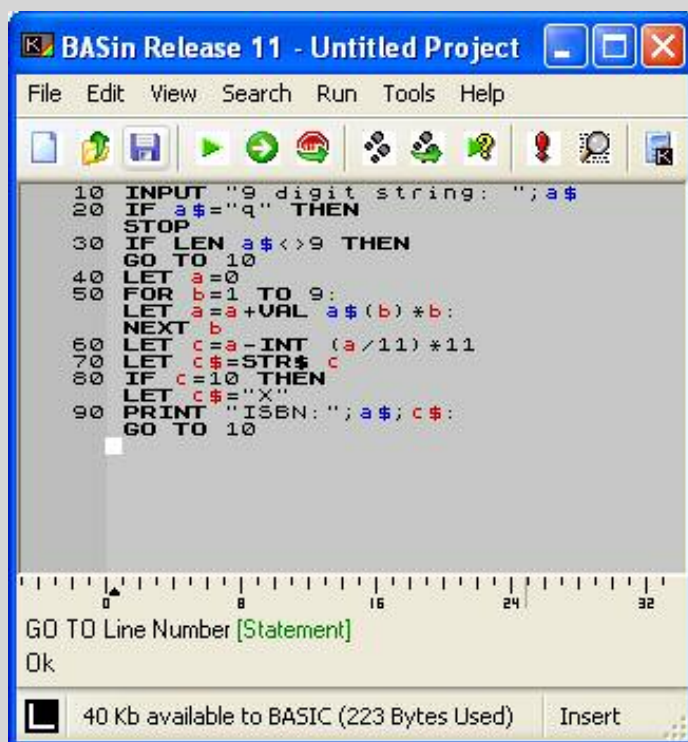
Give the resulting pattern a play through, and you'll hear that the Doctor Who theme is taking shape - and along the way we've learned almost everything there is to know about samples. We've still got one more channel to fill before our rendition is complete - and that's exactly what we'll do in the next lesson. So, save a copy of this song, and join us next time for the final part of the tutorial, when we'll be exploring the special effects that Soundtracker offers us.

© 2004 Matthew Westcott

It's back to BASICs for this ZX Spectrum magazine, as ZXF embarks upon a quest to rediscover the fine pleasure of Sinclair BASIC coding, aided by the fantastic BASin utility.

First of all, a reprint of a recent CSS post by BASIC aficionado Geoff Wearmouth.

This little BASIC program is magic. You type in the first 9 digits of an ISBN and it supplies the tenth.



International Standard Book Numbers are managed from Berlin and, although they are set to change in 2007, they allow a certain amount of data mining to be done on the various databases that allow searching by ISBN. The format is really quite ingenious.

As you have probably guessed, the tenth character of an ISBN is the check digit. To derive this, each digit in the string is multiplied by its position in the string (1-9) and the total, mod 11, gives the final digit. If the remainder is ten, then 'X' is used.

For example:

ISBN 0-86161-111-X "Understanding Your Spectrum" Melbourne House

ISBN 0-86161-116-0 "The Complete Spectrum ROM Disassembly" Ditto.

ISBN 3-19-008209-X "Das Sinclair Spectrum ROM" Hueber

ISBN 0-9508477-0-4 "FORTH Programming" Jupiter Cantab

ISBN 0-13-098831-6 "Reasoned Programming" Prentice



# exp LIST

Hall

Spaces or dashes separate the four components. The first group, usually a single digit (but rising to five digits when initially more than 7) denotes the language. e.g. 0 is the Queen's English, 3 is German. Obscure regions are denoted when 80 - 99999.

The next group is the publisher and again the size of the digits rises as the first two numbers go higher. Twenty, 2-digit publishers within each language group are allocated a million titles each. Hueber like Prentice Hall are pretty big. As the number of digits rises, the number of titles decreases. The group 86161 uniquely identifies Melbourne House who are allocated 1000 titles. The number 9508477 uniquely identifies Jupiter Cantab who were allocated ten titles 0-9.

The next number is the title id with a payoff depending on the space that the group and publisher have already taken up.

The final check digit is always a single character. To find the next book in a publisher's portfolio you remove the check digit, increment or decrement the 9-digit number, and then reapply the checksum.

For instance I found this abandoned book.

<http://isbn.nu/0861611365>

The Complete TS2000 Disassembly. 01-MAY-1984.  
"Publication cancelled".

Using the above program it is possible to calculate the ISBN numbers of adjacent books and discover that Melbourne House abandoned four major Timex publications at that time.

It's a useful program, ripe for improvement, and I have stuck the BASin compatible ASCII version here.

[www.wearmouth.demon.co.uk/BASIC/isbn.bas](http://www.wearmouth.demon.co.uk/BASIC/isbn.bas)

Good hunting.

---

**Moving on, SE BASIC is back on the development agenda after a two year break by its author, Andrew Owen. After having had a look at Andy Wright's Beta BASIC, Andrew's decided to incorporate some functionally equivalent commands. Now Beta BASIC was an extension to Sinclair BASIC - it added to the original with something like 100 extra commands, taking up the best part of 20K along the way. So there's no way anything like this could be added to the SE BASIC ROM; instead Andrew wants to add the extra functions as a default library in line 0. A what? The idea is to use the DEF FN command to define a whole**

**load of new functions at the start of a BASIC program in a single (very long) line of code; the rest of your program can then use all these new functions as though they were built-in commands. Stick it all in line 10 and enter POKE 23755,0: POKE 23756,0 - like magic, line 10 becomes line 0. So there you go - a library in line 0.**

**Andrew has written to ZXF explaining things a little further. Here's what he had to say:**

The new function count is now up to 20, and with the optimizations made by Monty.Mole the whole thing should take up a good deal less RAM.

Here's the list:

```
BIN$(number) CHAR$(number) DEC(string)
DEG(number) DIV(number, number)
DPEEK(address) FREE() HEX$(number) ITEM()
LEFT$(string,number) LOG10(number)
MAX(number, number)
MID$(string, number, number)
MIN(number, number) MOD(number, number)
NUMBER(string) RAD(number)
RIGHT$(string,number) TIME() TIME$(number)
```

My aim with these functions is to provide a standard function library for Sinclair Basic that will compile with the HiSoft BASIC compiler, be somewhat compatible with BetaBasic, and be displayed as named functions, rather than FN A()...etc (using a special display routine on a real Spectrum via channel #3). In BASin the aim is to be able to type these functions in as shown above. There are 26 numeric functions and 26 string functions available in Sinclair Basic. As you can see, I've used 7 string functions and 13 numeric ones. Minimal BASIC normally allows you to define 26 functions, so if I add any more functions to the list they will be string functions, or they will replace existing numeric functions (DIV is no shorter than doing the equation in full), leaving 13 string and 13 numeric functions for the user. I may forego compatibility with BetaBasic to use FN N-Z and FN N\$-Z\$ leaving the user FN A-M and FN A\$-M\$. The library will be supplied as a .bas and .tap file with all the functions stored in LINE 0 (which is protected). Most of the string functions I'd like to add cannot be described in a BASIC function without the use of VAL\$ (which will not compile), so they may have to be done via machine code - in which case they would be stored in a REM in line 0 following the DEF FN definitions.

**For the latest info on this new phase of SE BASIC, the place to hang out is the SE BASIC area of WoS Forums, of course.**



# E3

e-m@ILER

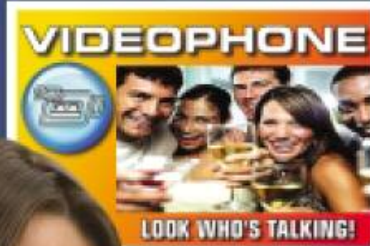


## MAKE VIDEO CALLS TO OTHER E3 E-M@ILERS

Building on the success of the e-mailer, Amstrad have done it again with the introduction of the new E3 e-mailer videophone. Now you really don't need a PC to make video calls, send email with pictures/sound or surf the net, it can all be done with our easy to use e-mailer video phone. It can even send MMS picture messages with sound and text to mobile phones, plus send and receive SMS text messages. All costs can be viewed on screen prior to use, so just 'pay as you use'\*.

**Amstrad E3 e-mailer – look who's talking!**

KEY PRODUCT FEATURES



**VIDEOPHONE**  
See who's talking with this great, easy to use feature.



**EMAIL**  
Send & receive email worldwide without a PC. From up to 8 email addresses.



**INTERNET ACCESS**  
Surf the web without a PC. Exciting content updated regularly.



**MMS PICTURE MESSAGING**  
Send/receive pics with text & sound to/from mobiles.



**PHOTOSEND**  
Take a picture 'snapshot' and send it with sound by email.



**POLYPHONIC RINGTONES**  
Large library of very realistic tones: music, TV, sport, novelty...



**SMS TEXT MESSAGING**  
Send/receive text messages to/from mobile phones.



**COLOUR LCD SCREEN**  
480x320 pixel clear, bright full colour LCD screen.



**DIGITAL ANSWER MACHINE**  
Easy to use with green LED light to indicate new messages.



**PLAY GAMES**  
Download and play games with sound. Choose from a large library.



**ADDRESS BOOK**  
Store up to 700 contact names and addresses.



**HANDSFREE PHONE**  
Clear and convenient handsfree speakerphone. Great for video calls.



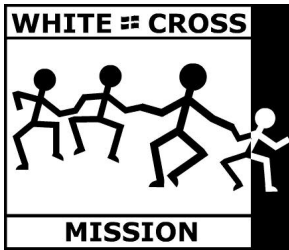
**Amstrad**  
*Getting Britain emailing*

[www.amstrad.com](http://www.amstrad.com)

The e-m@iler is subsidised by the use of the email service (as is similarly the case with most mobile phones). The sending and/or collecting of email has a minimum cost of 15p\* per session plus your local call rate per minute. A session can both send and collect waiting email at the same time (note that several email messages may be sent and/or collected in a single session, all for the same per-session cost). One of the conditions of sale relating to this subsidy is that the e-m@iler is used within the UK only - the unit will cease to operate unless it remains connected to a UK telephone exchange. So that you don't miss any email, the e-m@iler is set to call and check for email once a day. This can be increased if required. Calls to check for email cost 15p\* per session plus your local rate per minute (average cost 17p\*). **SO THAT YOU DON'T MISS ANY EMAIL, THE DAILY EMAIL CALL WILL RESULT IN A CHARGE OF APPROX 17p\* PER DAY ON YOUR PHONE BILL. ON QUARTERLY BILLS THIS CHARGE MAY BE SHOWN AS APPROX 90 SEPARATE DAILY CALLS.** Note, a further condition of the subsidy is that from time to time you will see adverts displayed on your e-m@iler screen (sent at no cost to you). You may respond to these adverts or delete them as you see fit. The e-m@iler incorporates Amstrad which allows connection to the internet enabling you to view low graphic content sites as well as a limited range of internet web sites. The cost of surfing is 5p\* per minute at all times. The e-m@iler also incorporates additional features such as video phonecalls, MMS and SMS texting, PHOTOSEND picture sending by email, downloadable ringtones and games as well as other services such as electronic greetings cards, mobile services, prank calls, etc. The cost of all these services can be viewed on the screen prior to purchase. **VIDEOPHONE CALLS POSSIBLE ONLY TO OTHER E3 E-M@ILERS.** \*Correct at time of printing. Screen images shown are for illustrative purposes only. OTHER TERMS APPLY.

**THE E-M@ILER IS DESIGNED FOR INSTALLATION IN THE UK ONLY**





After Ceaucescu's death in 1990 over 120,000 children were discovered living in grim institutions. In the county of Jud Bihor in Western Romania, children who had been assessed as 'mentally retarded' at the age of three were sent to an institution in the country village of Cadea. They were housed in old buildings that had broken windows and no heating or plumbing. It was dark and dirty and for the majority of the time the children were confined to their cots. Most of them were tied to the bars by strips of cloth tied tightly around their wrists and ankles.

The children were always dirty, hungry and cold - sixty to seventy died every winter. Their original 'retardation' was the result of early illnesses such as pneumonia and bronchitis, and years of confinement at Cadea only compounded the problem. When they were finally released in January 1991, many could neither walk nor speak. All of the children rocked backwards and forwards in their distress; their eyes were glazed and unseeing. On release, many of the children were sent to hospital buildings in the mountain villages of Remeti and Bratca. It is here that the White Cross started assisting the local Romanian staff in their care.

Since the White Cross has been working with the children, over 600 people have travelled with the Mission to Romania. Some have only been able to give a few days of concentrated work, most average two months and one stayed for four years! Some work with the children, others repair the buildings and yet others deliver goods. Every volunteer is special. They raise their own money for air and train fares, insurance, food and electricity and more than half of them do it all over again and go out for a second or even third time. Old or young, with or without qualifications, the combined work and presence of these many different people has had an amazing impact on the children.

Children with blank, unseeing eyes, rocking in a world of their own are now healthy, laughing and boisterous. The accumulative effect of the White Cross volunteers with their mixture of naivety and experience, their energy, their perseverance, their hopes, their dreams and their many different ways of showing love has created a rainbow effect of bouncy, confident and individual children.

Fundatia Crucea Alba has helped White Cross Mission with the legalities of purchasing small farms, employing assistants and moving children from the mental institutions in order to live a normal family village life. We intend that these farms will be the children's homes for as long as they need. All their lives if necessary.

Buying the farms is only the beginning of a lifetime commitment to those children we take out of State care. Without a regular financial safety net we would be irresponsible if we established too many homes. We do, however, believe that this is the only way forward and are desperate for substantial funding.

The White Cross Mission is a Charitable Trust Registered in England No 1021176