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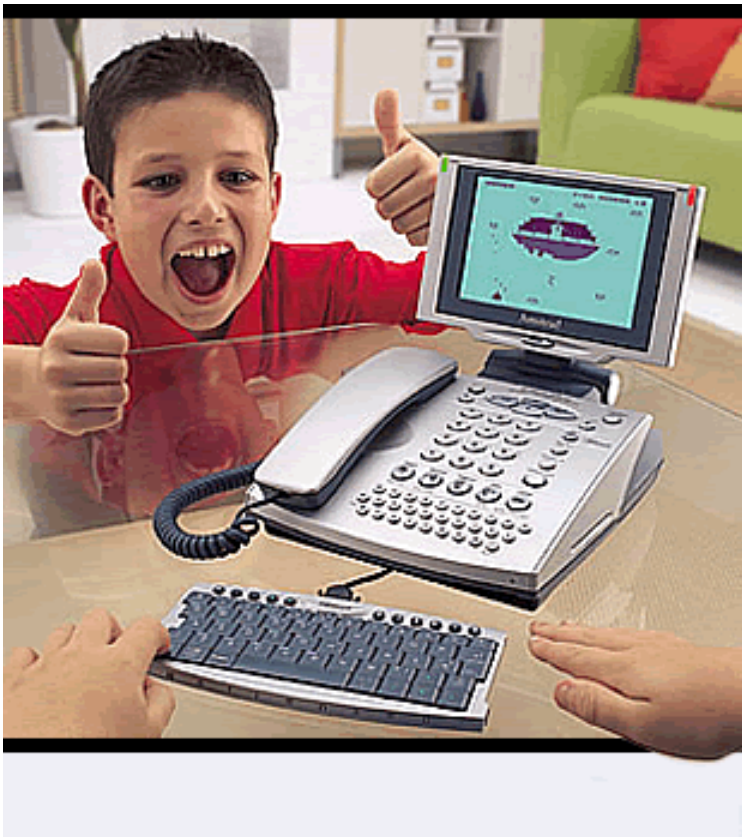


THE SPECTRUM RETURNS TO THE SHOPS!

INDEX ISSUE 38

Credits

Big thanks to the following contributors:

MICHAEL BRUHN for his series

ANDREW OWEN for his excellent BASIC article and work on a new OS.

CHRISTIAN SECARA and his great CP/M material

And even AMSTRAD for putting a bit of computing history in their new product. Despite the knockers I hope it does well and gets even more people interested in the Spectrum

EDITORIAL

I apologise immensely for the delay between issues. After Mick died, I just completely gave up on the Spectrum for a short time. All the hardware and software he collected, all the hours he put into his projects, and for what? It left me very disheartened with the whole business.

But, I decided to stop moping around and get things back on track. I was tempted to make this the last issue but, getting towards the end of compiling it I thought “hell, why?”. We did have a quiet spell of Spectrum activity a while ago but, once again, things are picking up.

This issue’s news section is one of the largest for ages, with information on new emulators and hardware, including details on a build-your-own-+D project!

It’s fantastic to see that the Spectrum is once again being sold in the shops, although technically it’s an emulation in a glorified telephone! We have a brief page of information on that and will feature some initial feedback from genuine Spectrum users later on, although much of it is extremely negative - genuine dislike of the machine and all that Amstrad stands for, or just typical negative behaviour from the CSS regulars? The fact that you have to actually pay to download games is certainly an issue, but I for one would recommend people actually *try* it before making judgement.

A few unplanned articles crept into this issue, forcing the CP/M ‘special’ I had planned over to the next issue. But, it will be worth it. Andrew Owen’s history of Sinclair Basic, and his new projects, make for excellent reading. It is refreshing to know that as the Spectrum approaches TWENTY years old at the end of the year there are thousands of people still striving hard to keep the name going.

Thanks for still reading and keeping the magazine going.

Andy Davis, editor.

NEWS & VIEWS

WOS UPDATED

The largest project on WoS to date was successfully carried out: a complete redesign of the archive, the tooling and the databases behind it, plus a replacement of all TZX and DSK images from this archive with the ones on The TZX Vault!

More importantly, the new tooling will make all future archive updates a breeze. We think it's a major improvement and hope you like it too!

The new system gives much more detailed information and e.g. tell you (much) more accurately which titles were re-released, by whom and under which name.

Finally, +3 disks and compilation tapes are properly dealt with as well.

We stopped fiddling with the current Perfect flag for game images. Instead, we will aim for a full set of 1 TZX and 1 non-TZX image per game, plus TZX versions of each and every re-release. Using a new database format and style for the point-and-click lists, you can instantly tell which titles are MIA or part of the new Spectrum Tape Preservation project. The lists are kept up to date fully automatically.

All short 8.3 filename directories (duplicated, hard-linked) have gone - only fullname directories are kept (but still with the short filenames inside the zips).

Well over a thousand (!) database corrections were made in both the WoS and TZX Vault databases.

The Spectrum Tape Preservation project's site is now hosted on WoS.

HACKERS HANGOUT 11

Issue 11 was released in mid-February. The cost is £1.50 and is available direct from:

Andy Ryals
29 Dent Drive

Eastmoor Estate
Wakefield
West Yorkshire
WF1 4JG

Andy now has a new project on the go—ZX DIGEST., an on-line magazine dedicated to bring you information of new articles within ZX Digest :

+News of special readers offers
+Website updates
+Details of obtaining brand new Spectrum software
+The release date of ZX Digest
+The contents of ZX Digest
+Information about players guides, maps, hacks to latest software.

To subscribe to ZX Digest, email Andy at:

ZXDIGEST@YAHOO.CO.UK

JAMES WADDINGTON COMES TO BEEBS RESCUE!

A small retro computer games Web site has come to the rescue of the BBC by supplying it with three vintage Sinclair Spectrum computers titles for a forthcoming television program about former athletics star, Daley Thompson.

Part of the documentary, entitled 'Black Icons: Daley Thompson', will focus on the various Daley Thompson computer games that have been released over the years.
Needing to get hold of three ageing Spectrum titles - Daley Thompson's Decathlon, Daley Thompson's Supertest and Daley Thompson's Olympic Challenge - urgently for a film shoot, a BBC researcher in Manchester contacted The Sinclair Lair after stumbling across our Web site.

Within hours, Sinclair Lair chief Alex Waddington was able to offer the Beeb the opportunity to purchase all three titles. Two were already sitting in a storage, while the other was quickly sourced through the Lair's successful Games Finder Service.

"Yet again The Games Finder service comes up trumps," said Waddington. "The service has helped dozens of people worldwide find old computer titles, and now we've even managed to help out the mighty BBC."

The Games Finder Service is just one part of The Sinclair Lair Web site, which includes articles from an old Spectrum fanzine called Classix, and full solutions to Spectrum adventure games. Visitors can also browse a list of original Spectrum software for sale, with prices starting at just 5p.

Anyone seeking an elusive piece of software for the Sinclair Spectrum, or indeed any old home computer, is encouraged to get in touch with The Sinclair Lair by visiting the Web site or by emailing alex@waddington.fslife.co.uk.

If the Games Finder Service manages to track down the software required, the enquirer is contacted and offered the opportunity to purchase the title (s) at cost price plus a £5 'finder fee' per item. For customers in the EEC, the fee is £6 per item, and £7 per item for those in other parts of the world.

"We operate a genuine no win, no fee policy," adds Waddington. "If we fail to find the software you are after, you don't owe us a penny."

An exact transmission date for 'Black Icons: Daley Thompson' has yet to be set, but it will be shown on BBC2 in the 9.50pm slot at some point during the next few months.

PORNO BARON IN TEACHING SHOCK!!!

If any of you in the Blackpool area are thinking of going, or sending your children to the local college, beware! For our old pal ROY BENSON is now employed as a Computer Lecturer at Blackpool & Fylde College.

Seriously, congratulations to Roy, we are pretty sure that he will make an outstanding teacher (in where to get the best porn!).

LOADED FORUM CLOSES

The LOADED Sinclair forum, tipped to be the new CSS, has sadly folded. The hit rate was approximately 26,300+ in 3 months, but only post rates count on Message boards not hits! - Loaded was only getting around 1 post per 20 visits.

The CSS newsgroup is still going strong, and can be

accessed by your email program's newsgroup facility, or via the GOOGLE website.

REALSPEC VERSION 11C RELEASE

Just before the brand new Windows version of Realspec, one minor update has just been posted at the Realspec website (www.ramsoft.bbk.org)

This update features improved AY/YM emulation (probably perceived by audio maniacs only), a usable tape browser (SHIFT-F7) and a few bugfixes. Most importantly, it is linked to a new version of the Allegro library which seems much more stable than the previous ones, so you are recommended to update if you are experiencing weird problems with the post-beta10 releases.

SPECTRUM SE PROJECT

Andrew Owen is currently undertaking a project to design a new operating system for the new Spectrums which are abound at present. Codenamed *Chloe*, the OS is designed to support 16K, 48K and 128K Spectrums, and TC2048, TS/TC2068 and UK2086 Timexes. But by replacing the existing system of channels and streams with something more flexible the aim is to make it fully platform independent.

The development of Sinclair Extended Basic means that any Spectrum can be turned into a ZX Spectrum SE, from the original 16K machine upwards. This means that you can use whichever machine suits you, or an emulator. These are just some possibilities, but they are by no means the only ones:

1) ZX Spectrum +3e (designed by Garry Lancaster) - 3.546 Mhz / 128K

2) Timex TC2144 (designed by Jarek Adamski) - 3.528 Mhz / 144K

3) SpeccyBOB (designed by Mike Wynne) - 7Mhz / 4MB

4) Sprinter (designed by Peters Plus Ltd) 21Mhz / 64MB

A full rundown of the software will be covered next issue.

SPINTER REVISED

The SPRINTER computer, which we featured in detail in issue 10 (AN36) has undergone major revisions. Not only does this remarkable machine now run CP/M, which is making a comeback quite recently, but there is a new BIOS and lots of new software, including FORTH, and there is even a Sprint emulator! You can visit the emulator site at the Shaos&Co. site:

http://www.shaos.ru/

(and click on NEDO PC)

We'll be looking at this emulator in depth next time.

NEW PAPER MAGAZINE

If you miss the likes of 8BIT, weep no more, for BlackMarket, a multi-formats paper magazine is shortly to be released.

The mag. Is to have it's debut at the *mekka & symposium* in Fallingbostel, Germany, a demo-scene party held at the end of March.

I CAN'T BELIEVE IT'S NOT THE +D!

Ever wanted a +D but been unable, or not willing to pay the high 'retro classic' princes on auction sites? Well, look no further than the following:

http://www.worldofspectrum.org/NotThePlusD/

Which features a full article by Philip Mulrane and Peter Rennefeld
on building your own. The pictures, one of which is below, are fantastic and it must be said that the cloned self-built interface looks more like a Sinclair product than the original!!!

Original & clone - but which is which?

End of news.

Official Amstrad Release:

A home phone that allows you play games may seem unbelievable to most – but not to Amstrad. We have incorporated the ability to download and play great Sinclair ZX Spectrum games on to the e-mailerplus, allowing the user to choose and play classic games from its extensive library. You simply choose the game you wish to play from the games menu and download it to your machine.

sinclair ZX Spectrum GAMES CENTRE

Each game is downloaded separately and is stored in your e-mailerplus for a fixed time period. Several games can be stored at any one time, allowing you to swap between your favourite games at the touch of a button. With its large screen and easy-to-use keyboard, you really can have hours of fun.*

And with a large library of games to choose from (and new ones being added regularly), you need never be bored on the phone again. You can even play a game while a phone call is in progress!

**The cost of downloading a game and its expiry time is shown on the games menu. Charges are applied directly to your phone bill. Please read the information displayed on your e-mailerplus screen and make sure you have the authority of the person who pays the bill prior to the downloading of any games. A parental lock is built-in to prevent unauthorised use.*

▶ *Play GREAT Sinclair Spectrum Games on your home phone*

L☺☺K, it's 1983

By Michael Bruhn

Remember the last issue of AlchNews, where I looked at the Spectrum games industry of 1982? Now it's the turn of 1983. Let me start by warning you that from now on, I might forget some of your favourite games. There are now so many games released each year that mentioning all of the good games is impossible.

Also, it's sometimes hard to remember or find out what year a game is from. I've therefore used WOS (World of Spectrum) to define which games came out in 1983. However a game like Atic Atac might have been released at the very end of 1983 but is considered a 1984 game by me, because it didn't start selling in big numbers before 1984, and if you use the Sinclair Infoseek on WOS the game wasn't reviewed before the February 1984 issue of Sinclair User and Crash. I hope you understand this, I'm sure you know this can be a problem.

In the last issue I asked if you knew what the company named Spectrum Games changed its name to in 1983. The answer is Ocean, did you know that? However Ocean did not release any good games in 1983 that are worth mentioning here. You'll have to wait for the Look, it's 1984 article for that.

Should we get the boring part done and name some of the worst games from 1983? Well, in my opinion the absolutely worst game from that year was Schizoids from Imagine. Following closely behind was Transylvanian Tower by Richard Shepherd software. It's quite fun reading games advertisements from back then in the early 80's. A lot of the games released were conversions of Arcade games, but it was never mentioned in the adverts that their new great game was a conversion of this or that Arcade game. No they made sure that you wouldn't have any doubt about that when reading the text that came along with

the advert. Such a case was Maze Death Race by PSS, which was a rip-off of my all time favourite arcade game Rally X. So, I rushed out and got hold of it, and what a disaster. I've never seen such a bad conversion of an Arcade game on the Spectrum after that. I wonder why a good version of Rally X for the Spectrum was never released, nor for Lady Bug, another favourite arcade game of mine. Another disaster from that year was the release of Cassette 50 by Cascade which was a collection of fifty boring games all written in Basic. Anyone with two weeks of basic programming experience could have made these games.

Back then there was a bunch of small companies who didn't really sell as well as many of the big companies of that year, like Bug Byte and Imagine. One of those companies was Blaby Computer Games which released great games like Highrise Harry, Barmy Burgers, Gold Digger and Chopper Rescue. There were also Silversoft, CDS Microsystems, Romik Software and Rabbit Software who released some fun games. I've always loved these small simple games and therefore I think they deserve to be mentioned. 1983 was also the year where the first Frogger conversions came out for the Spectrum. However in my opinion it's only Froggy by DJL Software that's worth spending some time on as it's very close to the Arcade version. From Axis came the first good Breakout style of game in the shape of Superball and from Euro Byte came the best Centipede conversion called Pod.

1983 was also the year where one of the best and most innovative Spectrum games companies started out. I'm of course talking about Ultimate. Their first game Jetpac must be mentioned as one of the Cult games of this year. They released four games that year, all suited to run on a 16K Spectrum and still they were extreme fun and very addictive. The other 3 three were Cookie, Pssst and Trans Am. Another cult game of that year is Halls of the Things from Crystal, which I think was highly over rated. So, don't expect to find it in my Top 10 at the end of this article. It was probably the first action Dungeon & Dragons

game for the Spectrum, but it was way too confusing for me to become a personal favourite. Another Cult games was the adventure game The Hobbit. Based on the book by the same name by JRR Tolkien, it was the first really good adventure game for the Spectrum. But put Hobbit, Jetpac and Halls of the Things aside now for the biggest cult game of 1983. I'm of course talking of Manic Miner by Matthew Smith, which was released by Bug Byte. Manic Miner was the first platform game for the Spectrum. You had to collect a certain amount of keys on each screen to escape to the next screen. Later Matthew Smith left Bug Byte to join Software Projects under which label Manic Miner was re-issued. In one of the next articles I'm sure we'll talk about Mr. Smith's second huge game, which took platform games one more step into the future.

Besides the great Stamper boys of Ultimate (above, right) and Matthew Smith, another great programmer released his first games for the Spectrum that year. He released Cosmic Debris, 3D Combat Zone and Dimension Destructors at Artic.

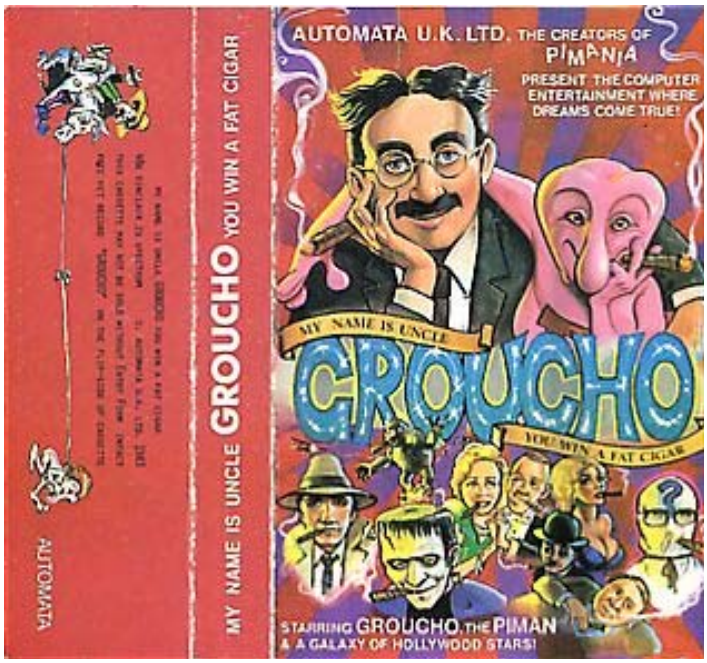
The man in question is Jon Ritman, who later would rise to fame for games like Match Day, Batman and Head over Heels.

To please as many Spectrum users as possible companies started to release tapes with both a 16K and an extended 48K version on it. Some examples of that were New Generation's 3D Tunnel and Abbex's E.T.X., which had speech on the 48K version.

Before I go on, let me mention some other great games from 1983 that deserve to be mentioned, before I forget them. Let's start with Penetrator, the best scramble conversion for the Spectrum released by Melbourne House. Then there's Train Game, Microsphere's first good game. Legend got themselves a good name by releasing Valhalla. However that good name was ruined one

year later when they released The Great Space Race, which was nothing compared to Valhalla. After a lot of bad games in which I also count the 1982 released Arcadia and the worst game of 1983 Schizoids, Imagine finally released a good game, Jumping Jack. Pheenix from Megadodo was an excellent conversion of the arcade game Phoenix. After releasing two boring games (Black Hole & Violent Universe) under the name of Quest Microsoftware, Bob Hamilton changed the company name to Fantasy Software and released The Pyramid, which was a huge improvement on the two other games. Besides the marvellous Manic Miner, Bug Byte also released two other games by Matthew Smith that year, they were Styx and Birds and the Bees. Digital Integration released Fighter Pilot which was way ahead of the other Flight Simulation games of the time. Finally Durell Software released some great Spectrum games that year with Harrier Attack and Jungle Trouble, both programmed by Mike Richardson.

If you read my 1982 article in last issue of AlchNews, you'll probably remember that I mentioned some games where you could win money by playing them and solve some puzzles. The games were Krakit from Artic and Pimania from Automata. Well, Automata released such a game again this year called 'My Name is Uncle Groucho you win a Fat Cigar'.



This time you had to solve some puzzles to identify a Hollywood star. If you were lucky enough to name the star and your name came first out of the hat, then you would win the prize which was a trip to Hollywood for two, with a flight by Concorde one way, a trip on the QEII on the way back, and £500 spending money. I don't know if someone actually won the prize, I couldn't find any information on it. If you know, please let me know. Another game where you could win something was the incredible Splat from Incentive Software. You could win £500 if you achieved the highest score on the game. The scores were checked using a hi-code generator built into the program which produced a code for each score. The winner was James Tant who made a score of 112.930 points. Quite impressive as the average score of all the entered scores was 10.500. My own personal record on Splat is 22.085, not even close.

The winner of the first Cambridge Award, which was a programming contest co-sponsored by Sinclair User and the Spectrum software house Cases Computer Simulations, was announced. The winner of the prize money of £1000 was Mark Lucas for his game Battle 1917. CCS released the top 3 games of the contest which besides Battle 1917 included War 70 and Oligopoly.

Sinclair Research released the first version of Scrabble for the Spectrum which could be played by up to 4 players and you could also play against the computer. It had 11.000 words in its vocabulary. To my knowledge only two scrabble games for the Spectrum were ever released. The other one was Scrabble Deluxe which was released by Leisure Genius in 1987.

Before I round off this article with my Top 10 Spectrum games of 1983, I'll award the worst company that year. Remember last issue, C-TECH won the award of being the worst company in 1982. This year the award goes to Richard Shepherd Software. Well, I nominated their game Transylvanian Tower the second worst

Let me end with my Top 10 of 1983:

1. Jetpac - Ultimate
2. Splat - Incentive
3. Jumping Jack - Imagine
4. Highrise Harry - Blaby
5. Pod - Euro Byte
6. Penetrator - Melbourne House
7. Cookie - Ultimate
8. Manic Miner - Bug Byte
9. Mined Out - Quicksilva
10. Slippery Sid - Silversoft

game of 1983, however they did more games that were just as horrible that year like Devils of the Deep and Everest Ascent. I think the only decent game they released in 83 was Pete Cooke's Invincible Island.

What? Where's The Hobbit? Well, I'm no big fan of adventure games. Maybe someone who's more into adventure games should do a series like this for adventure games only. Just outside the Top 10, we find games like Pool (Bug Byte), Pssst (Ultimate), Train Game (Microsphere), Chopper Rescue (Blaby), Aquaplane (Quicksilva) and Pheenix (Megadodo).

If you have any comments or questions about the article, you can contact me at frankie@image.dk.

The History of Sinclair Basic

By Andrew Owen

SINCLAIR BASIC needs no introduction to enthusiasts of the little rubber-keyed machine but its evolution is stranger than you might think.

In July 1975 Micro-Soft, as it was then called, shipped BASIC (Beginner's All purpose Symbolic Instruction Code) version 2.0 for the MITS Altair 8800 hobbyist computer. This was the first commercial version of the Beginner's All-purpose Symbolic Instruction Code programming language, originally developed by J.G. Kemeny and T.E. Kurtz in 1964 at Dartmouth College in the United States.

By then Kemeny and Kurtz had addressed the main criticisms of BASIC; that it lacked structure and encourage bad programming habits, but the 4K and 8K versions for the Altair, written by Paul Allen and Bill Gates, were based on the original Dartmouth BASIC.

Microsoft BASIC became so popular that it made Gates and Allen their first fortune and was subsequently supplied with the majority of 8-bit computers. So not surprisingly, when the ANSI Standard for Minimal BASIC (X3.60-1978) was launched, it was based mainly on the Microsoft version.

In May 1979, Clive Sinclair's engineers began work on the machine that would become the ZX80. Sinclair was inspired to create the machine after seeing how much his son enjoyed using a TRS-80 but guessing that many people would be put off buying one because of the high price - just under £500.

Unlike Sinclair's previous foray in to the computer hobbyist market, the MK14, this machine would ship with BASIC, based on the ANSI standard. But the aim was to keep costs down and that precluded paying a licence fee to Microsoft. To this

end, Sinclair had already met with John Grant of Nine Tiles in April to discuss the software requirements of the ZX80.

Given the tiny R&D budget, Nine Tiles stood to make hardly any money out of the deal, but the feeling was that the project was exciting and worthwhile, and one the company would benefit from being associated with.

To achieve the launch price of £79.95 in kit-form, RAM was limited to 1K and the integer BASIC had to be crammed into a 4K ROM. Grant wrote the bulk of the ROM between June and July. But the resulting program was 5K in length so Grant spent that August trimming the code.

According to Cambridge mathematician Steven Vickers, who wrote the subsequent versions of Sinclair BASIC: "The ZX80 integer BASIC, written by John Grant, was in Z80 assembly code pure and simple, though it did use the usual stack based techniques for interpreting expressions."

The lack of support for floating-point numbers, overshadows Grant's achievement. He laid the path for things to come, introducing many unique features of Sinclair BASIC, such as the way it refuses to allow most syntax errors to be entered into the program, instead pointing out where the error is in the line before it is entered, making it much easier to learn and use than any other version of BASIC.

The kit was launched at a computer fair in the first week of February 1980, and while it was not a massive success by comparison with the ZX Spectrum, it turned Sinclair's fortunes around, eventually earning him a knighthood, and it sold well enough to persuade him to make a new computer - the ZX81.

Work on the hardware had begun in September 1979, even before the launch of the ZX80, but it was the development of the uncommitted logic array, or ULA, which allowed the machine to go into production. The ULA, produced by Ferranti for Sinclair, reduced the chip count and brought the retail cost of the machine, in kit-form, down to £49.95.

Again, Nine Tiles was called on to provide the New BASIC, but this time there was 8K to play with. Vickers, who had joined Nine Tiles in January 1980, wrote the BASIC more or less from scratch, only using some of the ZX80 code, making numerous improvements while managing to maintain backwards compatibility with the ZX80 hardware.

"As far as Clive was concerned, it wasn't a question of what the machine ought to be able to do, but more what could be crammed into the machine given the component budget he'd set his mind on," said Vickers in an interview on July 23, 1985. "The only firm brief for the '81 was that the '80's math package must be improved."

The ROM was almost complete by the end of autumn 1980, but support still had to be added for the ZX Printer. Somewhere between this time and the launch, a bug crept in which caused the square root of 0.25 to be 1.3591409. Nine Tiles quickly fixed the bug, but Sinclair was somewhat tardy in making this version available to people who had already bought the machine.

Despite this problem, the ZX81 was well received and became massive success, spawning a series of clones, both illegal and licensed by Timex, which was manufacturing the UK models for Sinclair at its Dundee plant. Inspired by the public reaction to the ZX81, and annoyed at not winning the contract to design a computer for the BBC, Sinclair decided the market needed a budget colour computer.

The ZX80 and ZX81 hardware had been the primarily the work of one man; Jim Westwood, but he had been moved to the flat-screen television department , so the hardware design job on the ZX82, which became the ZX Spectrum, was given to Richard Altwasser, while at Nine Tiles, Vickers was again asked to provide the BASIC.

What started out as an expansion of the ZX81 BASIC soon turned into a large 16K program. Sinclair wanted as few changes to the ZX81 code as possible but at Nine Tiles the feeling was that software designed for a machine with 1K was inappropriate for a

machine with 16K and that problems would occur later on. They were right.

"Certainly with the Spectrum we wanted to rewrite the code, but there wasn't the time and there definitely wasn't the resources," said Grant in an interview on September 8, 1985. "At every point [in the development of the ZX range] Clive wanted the maximum new facilities for the minimum money."

After the best part of a year's work the BASIC was almost finished. While it was greatly enhanced, it was also depressingly slow, but more problems were to follow. The main problem was providing support for the planned peripherals because no working prototypes were available to Vickers until near the end of 1981. But then, in February 1982 Nine Tiles began to have financial disagreements with Sinclair over royalties which it became apparent would not be forthcoming.

To make matters worse, Vickers and Altwasser both handed in their resignations in order to form their own company, Cantab, which went on to produce the Jupiter Ace, essentially a ZX80 with the Forth language built-in in place of BASIC. The result of the delays these problems caused was that when Sinclair launched the machine, it did so with an incomplete ROM. Nine Tiles continued working on the ROM for three months after the launch in April 1982, but by then too many units had been sold and the program was never finished.

The original plan was to issue only a limited number of Spectrums with the incomplete ROM and provide an upgrade, much in the way the bug in the ZX81 ROM had been handled, except that by the time Sinclair got its act together, around 75,000 units had been sold and the plan became unworkable. This is the reason why the microdrive commands don't work in the standard ROM, and hence led to the development of the shadow ROM in the Interface 1 in order to handle peripherals which should have been supported directly by BASIC.

Various 'enhancements' were made to the BASIC over the years, including the extra syntax of the shadow ROM introduced with the Sinclair Interface I. And again in 1983 when attempt was made to overhaul the BASIC by Timex when it launched its TS2068. But again, the version of the ROM launched with the machine was incomplete, and the machine was unable to run the majority of Spectrum software because of hard-coded calls to locations in the ROM which were different in the TS2068.

In 1985 Sinclair launched the Spectrum 128 with a new editor bolted on to the original BASIC. This was slightly more compatible than the Timex effort but the editor was bug ridden, and some software refused to work, even in 48 mode, because the empty space at the end of the original ROM, used as a table by some programs, was now overwritten with extra code.

Amazingly, Sinclair never owned the rights to the ROM. Amstrad had to acquire them seperately from Nine Tiles in 1986 when it bought out Sinclair. When Spectrum clones began appearing back in late 1984, Sinclair Research boss Nigel Searle found he was powerless to do anything about it because the only really unique part of the Spectrum was the ROM and in the disagreements following the Spectrum's launch, Sinclair had failed to acquire the rights, for which it had originally offered Grant £5,000. By now the Spectrum had sold more than 2.5 million units.

Towards the end of 1986, when Amstrad wanted to create a Spectrum with a built in disk drive, it simply took the DOS from its PCW machine and patched the 128 editor to provide simple disk access. None of the bugs were fixed and new ones were introduced, but in fairness, there was little documentation at the Sinclair Computers division and development had moved from a VAX network running CP/M to a room full of PCWs running CP/M which was perhaps less than ideal.

Amstrad stopped selling the last Spectrum model, the +2A, in the early 1990s. For a time it looked as if the SAM Coupe, a

powerful Z80 based machine with a Sinclair compatible BASIC, might offer an upgrade path to Sinclair BASIC users, but after two false starts the machine disappeared into obscurity. Of course, the story doesn't end there, because even before as the last Spectrum was sold people were writing emulators. With the advent of the Internet, increasing numbers of people began to rediscover the computer of their childhood.

As a result, programs are still being written in Sinclair BASIC and the language is still being developed. Admittedly, most of the new programs take the form of entries in the annual Crap Games Competition run by contributors to the usenet newsgroup comp.sys.sinclair, but some people are still writing proper games and applications for fellow enthusiasts because, above all, it's fun.

If you want to program in Sinclair BASIC the most common choice will be a Spectrum emulator. It is legal to use Spectrum emulators because Amstrad has kindly given permission for the distribution of its copyrighted material for use with emulators although it retains that copyright. But there are also native interpretters available for the Commodoree 64, MSX and IBM PC compatibles.

There are also a vast number of unofficial versions of Sinclair BASIC, written by individuals to suit their own needs. Although most are available on-line, many do not comply with the provisos under which Amstrad grants distribution. Fortunately the emulation community came up with a solution to this in the form of .IPS files - patches that can be applied to a legitimately obtained ROM file.

Finally there is a new project to bring Sinclair BASIC up to date. Dubbed Sinclair Extended BASIC, or SE Basic, this project is an extension of the BASIC provided on the Spectrum. The project has been in development in one form or another since 1996, but it has recently reached a major milestone with the removal of all the bugs from the original ROM. Unfortunately it has introduced one or two new bugs, but it is still in the beta stage of development. Eventually the authors of the

project hope it will provide a universal base for expansion of the ZX Spectrum hardware, and compatibility across the range.

Much of the software referred to in this article, and a shorter on-line version of this article, can be found at the Sinclair BASIC page on the World of Spectrum at

http://www.worldofspectrum.org/sinclairbasic/

including the latest public beta of SE Basic.

For more information about Sinclair and the actual hardware the five-part article 'Sinclair and the "Sunrise" Technology' by Ian Adamson and Richard Kennedy, available on Planet Sinclair at

http://www.nvg.ntnu.no/sinclair/computers/mk14/mk14_sst.htm

makes excellent reading.

CP/M Plus (for +3 Spectrum) related software By Christian Secara

I am using the name CP/M Plus, as used by Locomotive Software for the +3 Spectrum version; in fact, CP/M Plus is CP/M version 3.

I am using the programs and/or files described below on a regular basis on my real +3 Spectrum, using CP/M Plus for +3 Spectrum from Locomotive Software and also on my PC, using MYZ80 emulator © Simeon Cran. All mentioned programs and resources can be downloaded from:

http://www.secarica.ro/html/cp_m_plus_for_plus3.html

Today, you may use the CP/M Plus for +3 from a bootable diskette with the RealSpectrum emulator © RamSoft

CP/M Plus Y2K fixes

I was really surprised to find Y2K fixes for CP/M Plus system. The whole story can be found at the Unofficial CP/M Web Site.

The essential Y2K fixed files for CP/M Plus for +3 Spectrum are:

DATE.COM
DIR.COM
SETDEF.COM
SHOW.COM

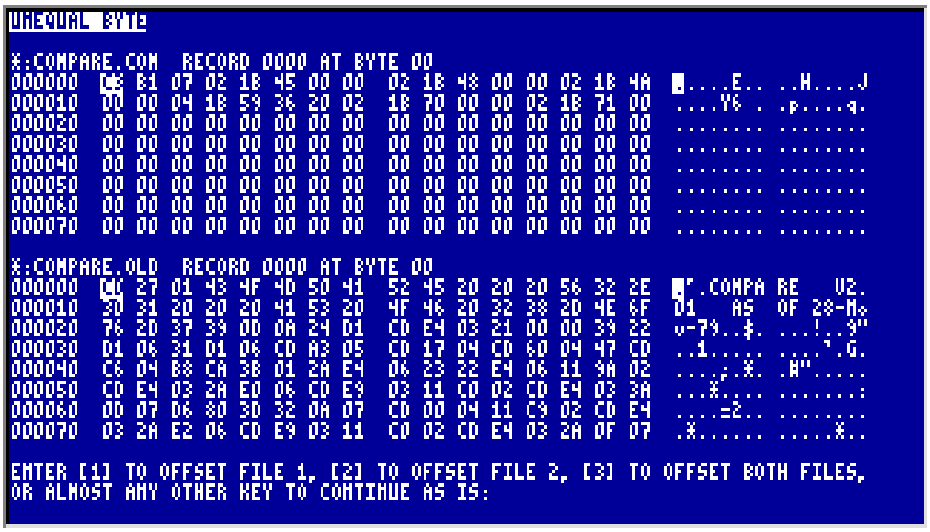
SETDEF now allows you to set dates in US (MDY), UK (DMY) or YMD format. These fixes are the work of John Elliott.

Compare v3.0 for CP/M

Ever wanted to know if two files are identical ?

This program compares two disk files for equality and lists in case one or more differences are encountered. The different byte is displayed in reverse video, both HEX and ASCII format, if byte is printable character. If not, it displays a "." as ASCII representation.

More info is in the COMPARE. TXT file, with the archive.



Compare screenshot (above)

Help file for CP/M Plus, suitable for use on +3 Spectrum

The CP/M Plus for +3 Spectrum package contains a single CF-2 diskette, with no (significant) free space left on it. I guess this is the reason Locomotive Software missed the CP/M help file.

I have the help file from both CP/M Plus for Amstrad CPC and CP/M Plus for Amstrad PCW8256. From the two, I find the PCW version the most suitable for use on +3 Spectrum.

As far as I know, there are only three items one should take care of:

PALETTE is quite ambiguous, the manual has a better description for it

PAPER does not exists on CP/M for +3 Spectrum version

PRINTER does not exists on CP/M for +3 Spectrum version
The file is relatively long. It makes sense to use it only if 720K diskettes are used with the CP/M Plus system (like I do).

HiSoft Devpac80 v2

I have purchased this package by mistake, not mine, but MicroSnips's, an UK store that does not exists anymore, AFAIK. I wanted the Devpac for +3DOS and they have sent a box with the wrong diskette, the CP/M version. I then wrote to HiSoft (making the proof of purchase) and they have sent to me the complete documentation for the CP/M version (at the same time I purchased the +3DOS Devpac directly from HiSoft).

Frankly, I wish to thank MicroSnips for that mistake, because the Devpac80 is an excellent tool, and without them, I shouldn't have known that a CP/M version even exists !

My package includes:

GEN80 v2.06 CP/M assembler

MON80 v1.06 disassembler/ debugger, previously included in Devpac80 v1

ProMON v2.7 disassembler/ debugger; works with Amstrad-type CP/M banked memory

ED80 & HDE interactive CP/M editor

Installation programs for each of the above components.

The GEN80 assembler has something +3 Spectrum specific: option A+ generates +3DOS header.

The rest of the package seems to be universal CP/M (Plus) compatible.

I am not making Devpac80 available for download (yet).

Reason 1: I still don't know the status of HiSoft copyright policy regarding its CP/M product. I wrote to them - no answer up now. *(They will answer your emails until they find out it's 8-bit related, then they ignore you. Ed.)*

Reason 2: at the time of this writing, a quite similar package can be officially purchased from at least two UK software retailers, High Street Micro and The Trade In Post. There is, however, something different: the packages that can be purchased there are for CP/M Plus for Amstrad CPC or PCW computers; although the

software is basically the same, the GEN80 for +3 version has the +3DOS header generation option. If you really need the Devpac80 for +3, just let me know, I will see what can I do for you :)

WordStar v3.0 for CP/M, suitable for use on +3 Spectrum

This is a real word processor. By running such piece of software on a +3, it means your Spectrum machine is a real computer :)

The version available here for download is customized for use on CP/M Plus for +3.

The terminal control codes are customized for VT52 compatible monitor.

The printer control codes are customized for Epson FX/LX, quite similar as the default +3BASIC printer control codes. Please note that this version of WordStar has a rather rudimentary printing capabilities in respect with modern (dot) printers. The product belongs to daisy wheel printers era ... Frankly, Tasword 2 or 3 has better printing capabilities.

Notes:

At the time of this writing, WordStar is the intellectual property of The Learning Company (many thanks to Mike Petrie for this info).

No compatible version for use with CP/M Plus for ZX Spectrum +3 has been ever build or sell.

This version is a binary modified code of a WordStar v3.0 copy, originally customized for an unknown system.

The archive also contains the MAILMRGE.OVR overlay file. It is used by WordStar with the MailMerge option (M from main menu). However, I have no idea what this MailMerge does ...

The cursor movement control keys have become a de-facto standard for many upcoming text editors, especially those focused on programming languages (the ED80 editor from HiSoft's Devpac80 package belongs to this category).

However, if you are not familiarized with the WordStar cursor movement control keys, or if you simply don't like it and want to use the +3 cursor keys, you may change them by means of a submit batch file.
Just download this archive and put the KEYS.WS and WSK.SUB files on the same floppy where WordStar resides. Then you may:

enter the WordStar as before, by typing WS at the CP/M command prompt

enter the WordStar with the new keys, by typing WSK at the CP/M command prompt; when WordStar exits, the key configuration will be reset as when nothing has happened

Please check also the README.TXT file included in the archive.

The KEYS.WS and WSK.SUB files are simple ASCII text files. You can write them directly on disk, instead of making a copy. Make as you wish.

For more info and patches regarding the CP/M version of WordStar, visit

ftp://ftp.mayn.de/pub/cpm/archive/wstar/.

This is a (partial) mirror of the Oakland FTP archive, which is "currently off-line due to a hardware malfunction".
For general help and info about the WordStar program (all versions, including DOS and Windows), visit Mike Petrie's WordStar Resource Site at

http://www.petrie.u-net.com/

We have been here all the time...

SinTech was founded in 1994. We first began to sell Spectrum-Software for Alternative Software. Then we started in selling hardware, offering repair services and later on we invented own hardware or did get licences to sell inventions exclusively.

- We brought you new software like the games Tango&Magic Dice, Atomix and Inferno the utilities Prometheus, SQ-Tracker and Orfeus and later we released Kliatba Noci, Quadrax and the famous Colour Draw (Multicolour).
- We helped the developer of the famous Mb02 to produce it and later on we took over distribution in West Europe.
- As the Spectrum-Plus membranes went out, we produced another batch of fantastic quality.
- For all users who aren´t happy with the Spectrum keys we offer internal and external versions of our PROFACE, an interface for connecting PC-keyboards to Specci.
- We still sell and repair all types of Spectrums and the Slovakian Didaktik Spectrum Clone.

So we where here all the time for you and your Spectrum.

But where have you been?

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