THE SPECTRUM SHOW
Magazine

RABBIT SOFTWARE
THEIR STORY, THEIR GAMES

INTERFACE 1BIS
THE ULTIMATE INTERFACE?

PLUS:
PLAY BLACKPOOL
MIND YOUR LANGUAGE

Includes material not in the show

ZX Spectrum

BLUE   RED   MAGENTA   GREEN   CYAN

NEWS FLASHBACK

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EDITORIAL

Welcome to issue 26 of The Spectrum Show Magazine. Thank you for downloading and reading.

The last few months have been a rollercoaster for me. The unpleasantries of having a house buyer back out at the last minute, the annoyance of people who outbid you with 1 second to go and up the bid by 50p, the relentless pace of finding time to make the shows, Patreon videos, this magazine and of course real life as well, and the absolute delight of seeing something I thought I would never see.

Let's stick with the good stuff then, and this journey started many years ago when I was compiling the Hardware Index, now used as a basis for both WOS and ZXDB hardware data.

I spent days going through every magazine and logging every piece of hardware and in doing so found some interesting and bizarre items. Things I would love to own and eventually did including the Stack Light Rifle and the RD Digital Tracer. Things I would never want to own like the plastic Hi-Stak feet that tilts the Speccy at an angle, and things I thought were ridiculous and intriguing, and were sold in such low numbers that they chances of any of them surviving today is zero.

One of these items, one that I always wondered about, came into my possession via the very kind Mike Cummins. He contacted me and asked if I would like to review it, and to be honest, it was one of those moment you dream about. Yes, of course I would like to review it. I had given up hope of ever seeing one, and now, here is someone kind enough to let borrow one.

The piece of equipment I am referring to is the Heart Rate Monitor sold be Magenta Electronics. Think about that for a moment. A company produced an add-on for the ZX Spectrum that monitors your heart rate. It's a little bit scary, and I am sure they sold very few units, if any at all.

Eventually the package arrived and there it was! I will be putting up a video on Patreon shortly and it will be featured in an up-coming episode of the show. Not only did Mike send me the device; he also sent me the software and instructions to run it. Both of which were obviously not available previously.

Around the same time this arrived, another package arrived bearing two separate items that are a bit more modern.

The ZXHD interface that allows your Spectrum to output an HDMI signal and the DIVmmc Enjoy Pro: A mass storage device with dual SD slots, dual joystick ports and jumperless setup. Both of these have been on my radar for a while and thanks to my Patreon supporters, I can now finally review them for the show.

Of course, as always, the great Patreon guys will get a behind the scenes look at these units first.

More deliveries continued to arrive and it felt just like the old days. You know something exciting is due and you can't wait to get it unwrapped.

This one though was something smaller, a single game. Nothing special to most people, but for me it was another one of those games I had back-in-the-day that got lost somehow.

It was a favourite of mine and although a simple game, it was stylish and challenging. The game in question is Android One from Vortex Software.

I have no idea where my original went to, nor could I understand the high prices this game can sometimes reach, so I was delighted to have got it at less than the usual crazy prices found on sites like eBay.

The game was reviewed all the way back in episode 2, so I had it then! That was many years ago now though and there has been several clear-outs and a partial house move since then.

At least it's back on my shelf along side Android Two. Or it will be when I finally get moved.

Retro shows arrive quickly these days, with three or four I always try to attend. In September it was time for Play Blackpool again and a trip to the sunny (!) seaside resort for some retro gaming.

This year I arrived in good time and set out for a quick tour of the arcade cabs, pinball tables, consoles and market stalls.

The usual cabs were on show and I grabbed a few games of June First, Tempest, Pleiades and Galaxian. I love playing these old cabs, and the feeling is a million miles away from emulation.

You can see the photographs on page 36.

The market stalls were focussed on consoles rather than computers, and I only found about 6 or 7 Speccy games. One stall had a few Plus2 machines propped up against a table, but no prices and they looked in need of repair.

The Hewson Consultants talk was entertaining but the others just didn't interest me.

The highlight though was the completion of Jetpac. For only the second time ever, I managed to complete the game. Well worth the trip.
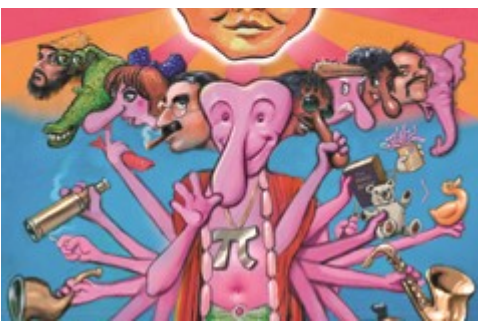
SINCLAIR WAFER BACKING

Clive Sinclair has been working for a long time on Wafer Scale technology, and managed to keep hold of the technology during the sell-off to Amstrad. His company Anamartic have been busy after the sale and have now got £4m backing from a variety of companies including Tandem computers and Barlacy's bank.

He is not alone seeking to conquer this technology though, his major rivals include IBM and Texas Instruments.

If successful, we may begin to see the fruits of over five years work starting to appear in the next 12 months.

AUTOMATA BOUGHT

Automata UK, the company that gave us the Piman and huge prize-money games like Uncle Groucho has been bought out by Interceptor Micros. Interceptor claim they will keep the label alive, promising four new games in the next four weeks. Two will be Spectrum games called Asiento and Sword of Kings.

Sadly, Interceptor also confirmed they would not be using the Piman in any new titles, but may keep him as a logo on the game inlays.

NIGHTMARE ON YOUR SPECCY

Adventure games are popular on all micros, and Anglia Television are about to launch a new TV series based on these very games. Called Nightmare, the programme will involve four people, one of who wears a helmet, restricting their vision. The others then guide them around pretend dungeons, caves and mansions.

A game based on the show is said to be in the pipeline, but Activision, who have been linked to the development, are keeping quiet.
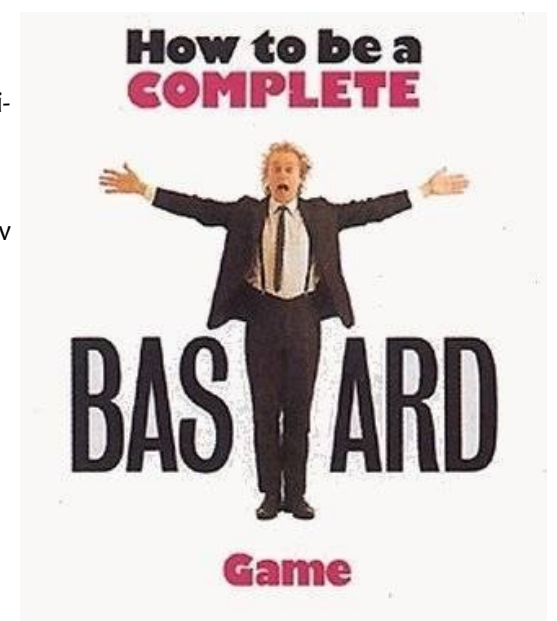
HOLD THE CHICKENS

The long awaited Mathew Smith game, Attack of the Mutant Zombie Flesh Eating Chickens from Mars, has been put on hold, with Mathew unhappy with how it's looking. He plans to take it apart and rebuild it bit-by-bit before release.

COMPLETE B*****D

It seems more and more software houses are looking at movies and television for inspiration and cheap licences to print money. Virgin's next release will be aptly named, How To Be Complete Bastard, and follow the antics of Ade Edmonson as he gatecrashes a yuppie party.

Based on the book of the same name, you control Ade as he wreaks havoc amongst the guests all in the name of entertainment.

COMPUTER CHAIR

Yes, it had to happen. The Cleveland Chair Company are making a chair just for playing games in. The swivel chair incorporates a pad on the arm just for joysticks and is seated on five casters so you can spin around while trying to blast aliens.

The Command Chair will cost you £50.

MELBOURNE BACK?

Melbourne House was thought to be dead and buried after a take-over last February by Mastertronic, but now the budget publisher claims it will begin to use the label again for full price games.

Mastertroinc have been busy lately buying the rights to many back catalogues including Riccochet and Ultimate Play The Game, and it hopes to released £1.99 versions of these company's games.

Sneak into a mainframe with your Spectrum...

MIND OVER MATTR

Tardis Remakes 2013

The Speccies released in 2013 was a Spectrum remake of 16-bit game Tiny Skweeks. I like the original and even managed to finish the Amiga version. When I realised that in the same year Tardis Remakes released Speccies 2, I was surprised - remake of Tiny Skweeks 2? I've never heard of this sequel. But Speccies 2 has nothing to do with Tiny Skweeks. It's a Spectrum remake of a web game Pathologic (which means "find the right path using logic").

You control a spherical character called Speccie and your task is to collect all the white circles from the board. The board is made of grey and black squares. You can walk (or rather roll) on black squares but every square can be stepped on only once. The grey squares are walls and you can't walk on them. The game rules are simple and completing the first few levels is easy. Later levels are harder and require a lot of thinking and many attempts.
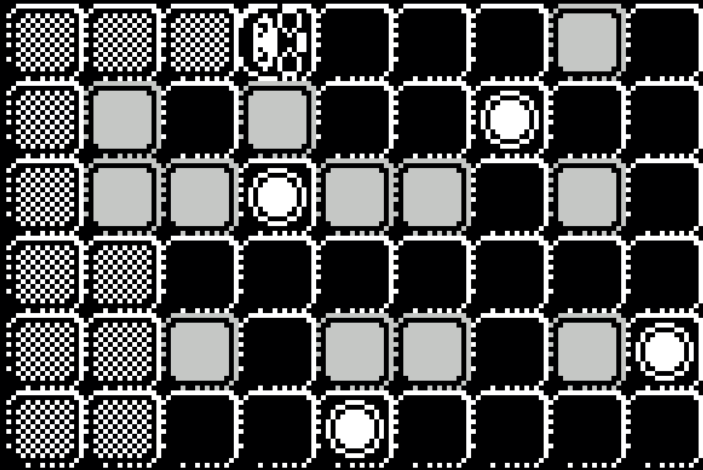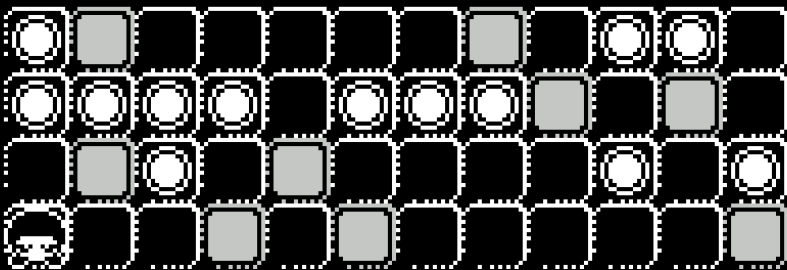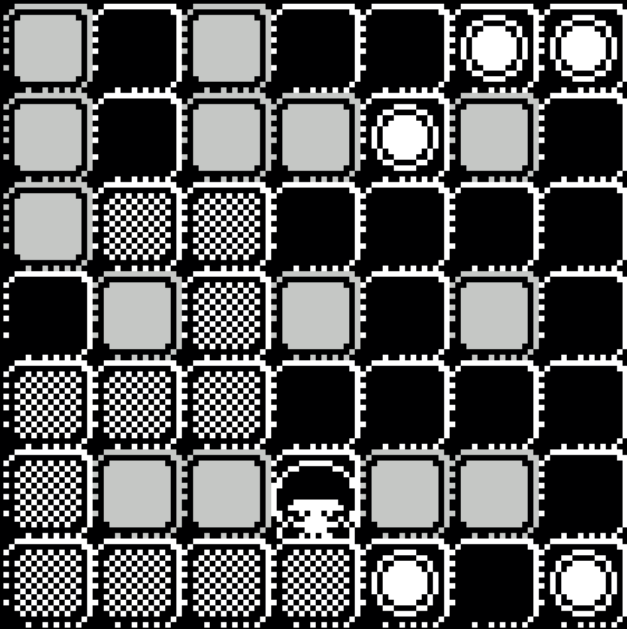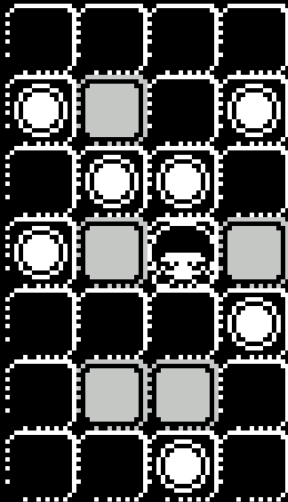
According to the author, Speccies 2 was programmed in less than 5 days, but it doesn't look like a rush job.

The graphics are simple but good and the same can be said about sound effects. The worst thing in logic games, time limits, is thankfully not present here.

The number of lives is unlimited which is a nice touch. There are 45 levels and the first 36 are accessible from the start. You can play them in any order and when you complete them the last 9 levels will be unlocked. There is no way to save your progress, so completing the whole game is not an easy task (of course if you play fair, without saving snapshots). This feature and the control method used by the author (keys QAOP and Space only) make Speccies 2 not perfect but still a very addictive game.

Hardware requirements are very surprising - Speccies 2 runs on any Spectrum, even the 16k one.

Piotr "PopoCop" Szymanski

SPOOKYMAN

Abbex 1982

No prizes for guessing what type of game this is. Yes it's a Pacman clone from early on in the Spectrums life, and one that caused no end of problems trying to review it.

The first thing is the control. The game seems to randomly pickup key presses so you prod various keys and your Pacman will move up, then suddenly start moving down on its own. If you leave the game alone, the Pacman moves randomly and this even appeared on different keyboard issue emulation.

I think the top row of keys move up, the bottom row move down and the left and right-hand halves of the middle rows move left and right, respectively; but not without random movement thrown in.

Crashes!

In 48k mode, it crashed when I got to a power pill. In 16k mode it crashes when I got to a power pill. I tried a different emulator, Spin rather than Specteculator, it crashed! I tried a third emulator and it crashed. I tried a real Spectrum and it failed to respond to any key presses. I tried another real spectrum and it failed to respond. I plugged a joystick in it responded.. and then crashed! This game seems highly unstable.

I tried to load the actual tape with no joystick interface and it worked, although the Pacman still changed direction randomly but at least it didn't crash and you could play the game. This left just one more question; is the TAP file corrupted?

I sampled my tape, converted it to a TAP file, loaded it in to the same emulator without any setting changes and it worked with no crashes. The keyboard was still a bit random but at least it was playable. I downloaded the tap files from WOS and these worked but the game played faster than my original when compared side by side and the code sizes are also different. Maybe I have an older or newer version! Anyway, on to the review.
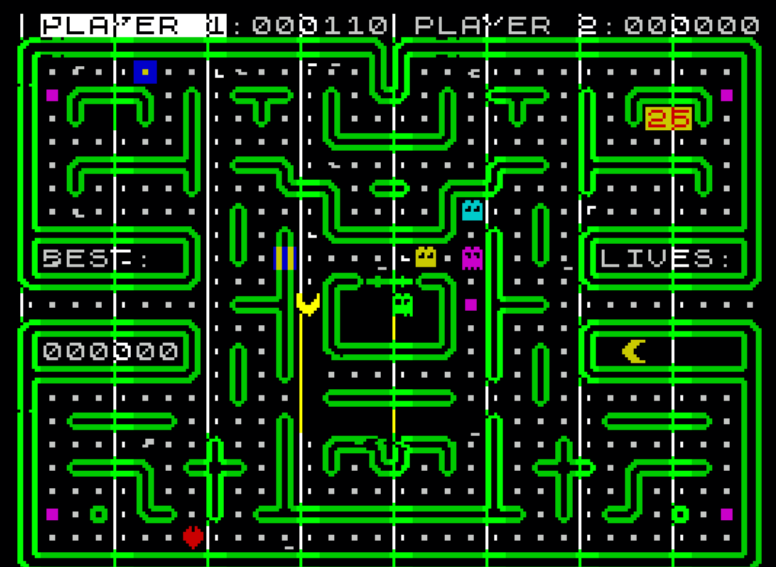
The Review

Spookyman is an average Pacman clone, and there were many such games for the machine. The graphics move in character squares and the sound is a bit simple with just blips here and there. Control is, as already noted, abysmal.

When you collect a Power-pill, the ghosts turn into white blobs and when you then eat them, they turn red, but also stop you moving past them as they make their way back to the centre of the maze.

If you set the emulator to Kempston joystick, the controls are much better so that's the way to play if you decide to. It looks like the game was coded to use the Kempston control method and at the same time, messed up the key input.

I would stay clear of this game though, for the control problem alone, it is so frustrating and there are many better versions available.

Crashed!

CAPTAIN FIZZ

MEETS THE BLASTER-TRONS

In summer 1989, I was flicking through a copy of Your Sinclair and came across a review that caught my eye for a game called "Captain Fizz Meets the Blaster-trons". It was the screenshots that stood out for me, showing a top-down shoot-em-up/ maze game with bright colours and clear detail. This was a refreshing change from the fashion, at the time, for games with large monochrome sprites that tried to squeeze too much out of the Spectrum's display. The article concluded that Captain Fizz was a reboot of the Gauntlet format, but with enough differences to make it a worthwhile purchase.

The article also highlighted a potential weakness of Captain Fizz in that it appeared to be effectively a two-player-only game. While you could play on your own, you would be unable to progress past the first couple of levels. Thankfully, I had a fellow gamer to help me, so I parted with £9.99 of my hard-earned cash and loaded it up.

The game inlay sets the scene, telling the tale of the starship Icarus, which has been overrun by hordes of aliens (called Blaster-trons), and is

out of control and plummeting towards the sun, putting not just it but the whole galaxy in peril (that must be one big ship). As Captain Fizz, you have to teleport on-board, clear out twenty levels of aliens and destroy the main computer, to avert the end of civilization.

As suggested by Your Sinclair, this is indeed a two-player game, so it is best to invite one of your friends around before you get started. You will also need at least one joystick as, even though game-play does not involve many keys, only one player can use keyboard controls.

Armed with a laser gun and a finite supply of 'blitter bombs', you (and your buddy) need to employ a mix of strategy and agility to find the teleporter to the next level. However, to activate the teleporter you first need to destroy all of the generators (they look like letter 'L's),

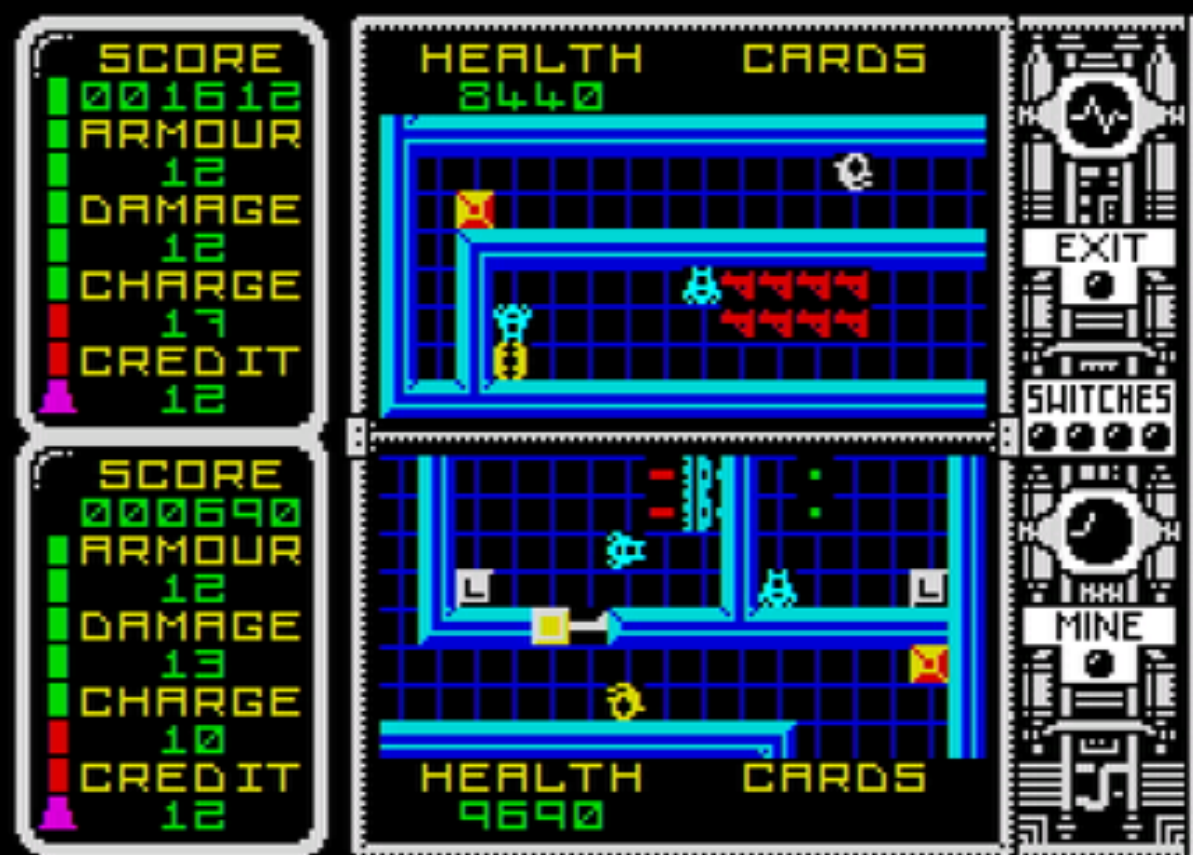from which the aliens emerge. Some parts of the level will be beyond locked doors for which you first need to find the correct colour-coded pass-card. In later levels, there are also energy fields that block key routes. These can be deactivated for a brief time, by hitting four switches in the correct sequence, though often you do not have time to get from the switches to the energy field, so you need to work with your buddy.

The game screen is split horizontally, into two playing areas, presenting a view of the level of the ship that you need to clear. The graphics are small but clear, and once you remember which part of the screen represents your player, it is pretty easy to follow. Rather than the view scrolling smoothly as you explore, the view flips when you move beyond the edge of the current screen. This takes a little getting used to, and sometimes you are prevented from moving in a certain direction by an obstacle that is just off-screen. I assume this is meant to add to the difficulty of the game, rather than being a design fault.

When you enter each new level, you will be greeted by swarms of Blaster-trons, which chase you around and shoot at you, slowly depleting your health. They are easy to shoot or, if you feel overwhelmed, you can use one of your blitter bombs to clear the screen. However, new Blaster-trons spawn continuously from the generators, so you need to destroy those to stand any chance of clearing the level. As well as Blaster-trons, you will find other health-sapping enemies and obstacles as you progress, including mines that activate when you touch them and very annoying tanks, which fire homing missiles. Various top-ups for your weapons, armour and health are distributed around the levels, though to rejuvenate your health, you also need to find a recharge point.

This is a genuine two-player game: you will soon come to a point where you need to be in two places at once to complete a task, and this is much easier if you have a playing partner! For me, the two-player nature is the source of much of the game's appeal: solving puzzles, sharing the treasures, and—if your sidekick has low health—taking on the brunt of the alien bashing, while they work to recover their stamina.

The difficultly level is good: it is reasonably easy to progress through the early levels, and the challenge ramps up gradually. The key is to keep an eye on your health and take your time. There is no option to save your progress, so you need to try to complete the game in a single sitting. I have not completed the game, though estimate it would take a couple of hours. If one player dies on a level—either because they run out of health or they get caught in an energy beam when it reactivates—there is still a chance to progress, if the other player can get to the end of the level. The player who
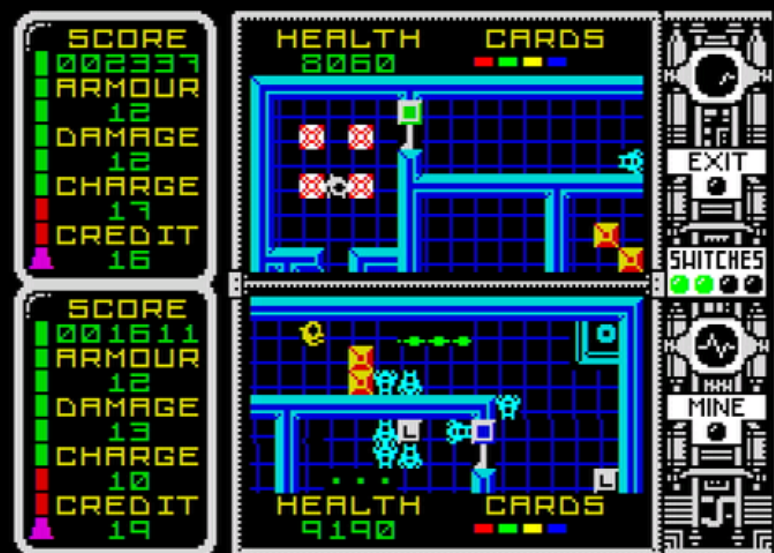
died can then regenerates on the next level with modest health. Even if both players die, all is not necessarily lost as, in some circumstances (perhaps if you get progress far enough), you are offered the option to continue the game, in which case accepting the option puts you back to the beginning of the previous level.

I played this game a lot when I was younger, and enjoyed it more than Gauntlet—the game that almost certainly inspired Captain Fizz. It is a great-looking game with good sound effects. The Spectrum version stands up well against the 16-bit ports, based on the walk-throughs on the web; probably because this game is well-suited to the capabilities of an eight-bit platform.

The game is not without its flaws, however. First, loading from tape takes an unnecessarily long time. I have looked into the loader (I wanted to port it to +3 diskette) and found lots of sources of inefficiency. There are four different loading screens (one simply giving you the option to choose the preferred language) plus multiple overloaded files for language and for 48k/128k sound. With a bit more thought, I think the loading time could have been nearly halved.

Further, on my Spectrum +3 at least, the Sinclair joystick controls and the keyboard con-

trols occasionally interfere with each other, meaning you find your player doing something unexpected, because of a move your partner has made. This might be a fault on my Spectrum +3, though this is the only game for which I have noticed the problem.

Finally, not a fault per-se but an issue nonetheless. The publisher (Psyclapse) has not given permission for the game to be distributed, so you cannot legitimately download a copy from the web. Further, it does not look to appear on auction sites very often.

Despite the glitches, I think this is a great game, and really sells two-player gaming. If you have a friend who is into retro-gaming, I suggest you hunt Captain Fizz out, get a joystick, and sit down for some seriously fun retrogaming.

Review By George Becket

SUBTERRANEAN STRYKER

Insight 1985

The cover of this game more or less tells you everything you need to know about it. It's a sort of Scramble clone but with a difference.

Your mission is to rescue stranded humans deep underground, in evil alien cave systems. There are multiple levels, and to progress you have to rescue eight humans from each level. Once that is done, a gate opens to the next cavern.

The first problem can be found on the opening screen of the first level - it's that lightning! These bolts of white shoot down from the sky randomly so getting past is just luck and this can be and be a real pain. The trick, however, so I found out much later is to go the other way! This is a bit easier and not immediately apparent as an option.

Once past this, which ever way you chose, we get onto the meat of this game.

The caves are really tricky to navigate and some of the passages are so small it's impossible to move through without hitting the walls. This is major issue. The game forces you to sustain damage to be able to move on, which is a bad decision. You can fly along these narrow passages and sometime through scenery, but your energy is decreased so you have to be careful.

There are bugs (not of the software type, we'll come onto those shortly), worms and aliens to avoid and sometimes you can just time your movement and zip past them, other times the aliens will need shooting.

The progress is slow and calculated, unlike Scramble. However, if you hang around too long an alien saucer will appear and head straight for you. This then forces you to make mistakes whilst trying to avoid it.

If that's not all, there is also a fuel limit, with your fuel being replenished when you get to the next level.

I should know this game inside out because I wrote a modern remake of it many years ago, and mapped all the caves out, but this doesn't stop the game being too difficult.

I wrote to the author all those years ago and he said the difficulty was a bit high, and that he wanted to add inertia to the ship. Doing that though would make it almost impossible to fly through the tight caves.

He also acknowledged that the very last level, if you can get there, is impossible to complete due to a bug that meant a bit of landscape blocks the final exit.

Movement of your ship is stop-start, but that does help when trying to get through the caves, and at least the inertia the author mentioned above is not there.

Picking up the humans is easy, you just bump into them.

Movement is smooth and sound is used well but it's just too hard to really enjoy. Sometimes because of alien placement and movement patterns, it is impossible to progress, making it frustrating.

The map at the bottom helps, showing aliens and humans, and does give you an idea of what lies ahead.

To see the other levels I had to revert to the RZX playback!

One for expert players only then.

Galaxians

Artic Computing 1983

Galaxian was created and developed by Namco and distributed by Midway in 1979 in arcades across the World. It was an attempt to improve Space Invaders by adding a lot more elements such as diving aliens and a scrolling starfield. There were numerous clones on the Spectrum, and I covered these in Episode 9 of the show.

At the time of its release on the Spectrum, most games has character sized graphics that stuttered across the screen, but here Artic have done a fabulous job of creating that arcade feel.

For me, this is one of the better clones of Galaxian.

The ship looks right, the aliens look great, movement is smooth and the swooping aliens are just like the arcade version.
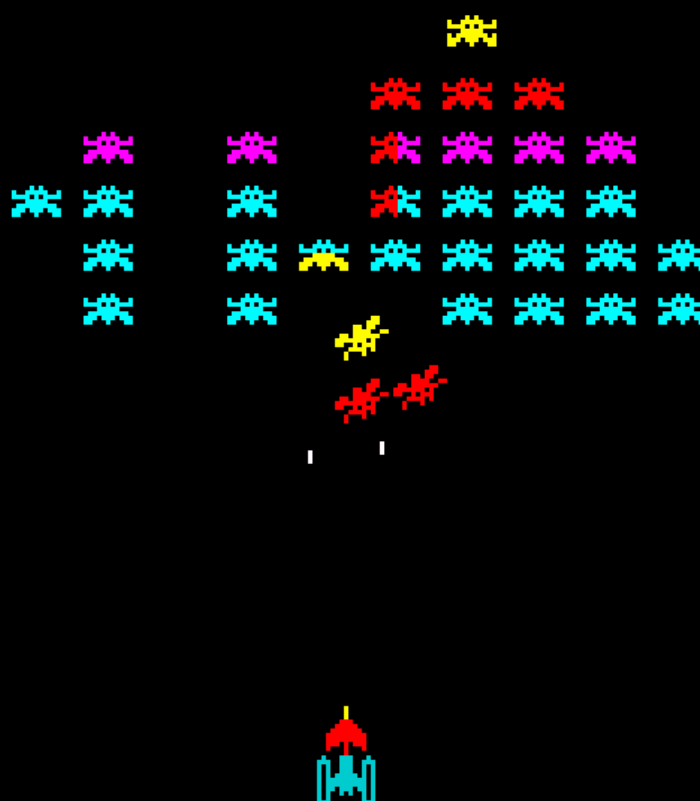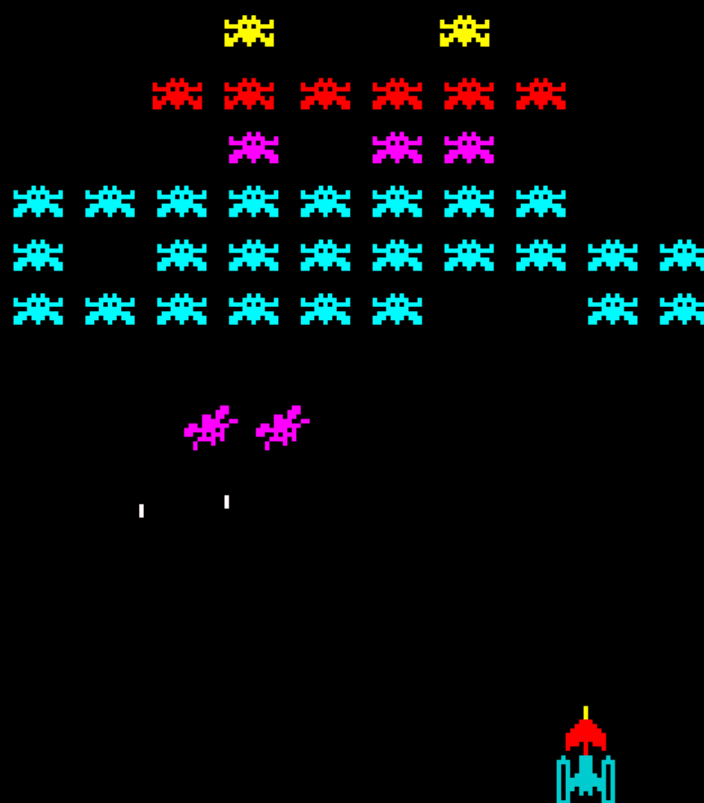
The screen size has been changed to be more like the arcade by adding a panel on the right hand side showing score, lives and hi-score. This cuts down the play area, but it really doesn't matter for this game. It gives a more arcade feeling with the right aspect ratio.

The only things missing from this version are a scrolling star field and a shooting sound. The star field I can forgive, as getting this on a Spectrum is quite an achievement, but to miss out the shooting sound is a bit of a issue. I don't know why they chose not to have a shooting sound – maybe space, because the game code is so close the 16k limit there may not have been any memory left.

Once loaded, the gameplay is excellent. It is really close to the arcade and very enjoyable.

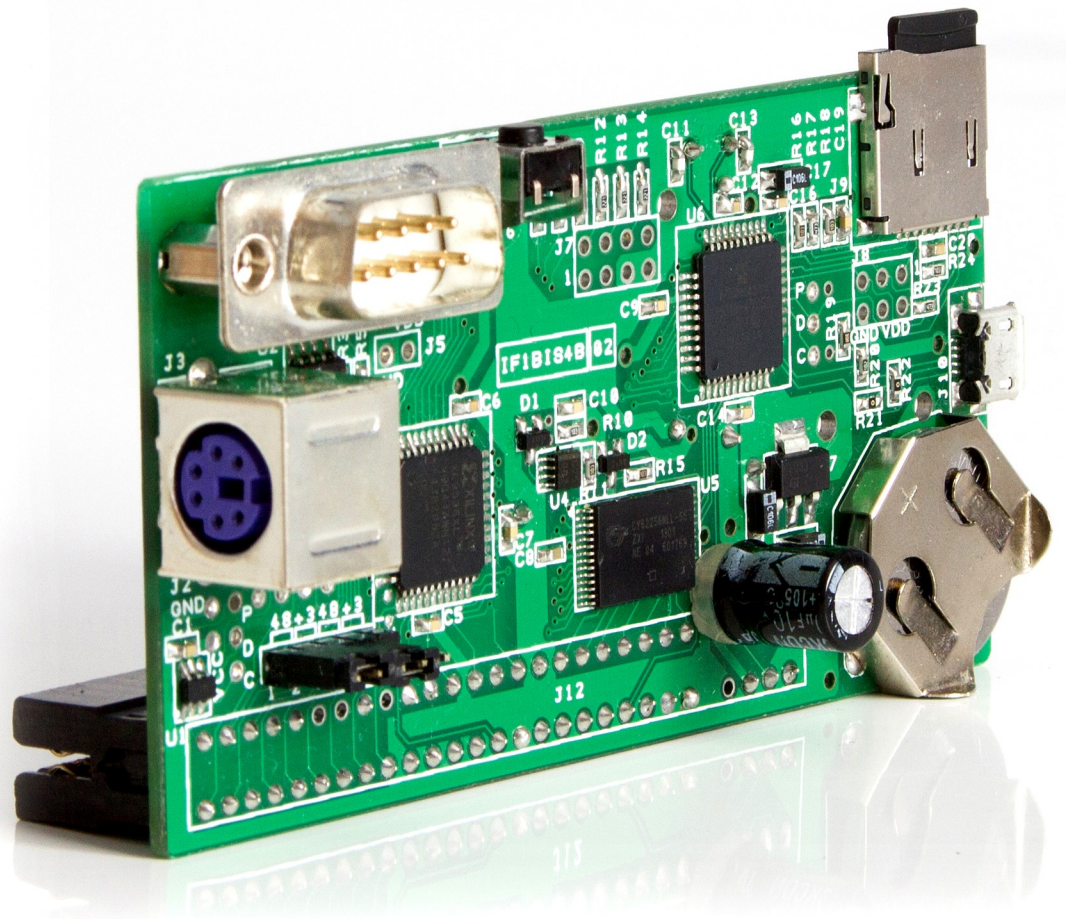The game has 9 levels of play, and as you increase this, the game does not just increase in speed, which is the usual method developers chose in those days. Instead, the diving aliens become more frequent and deadly. With the limited firing capability, this does ramp up the difficulty.

Overall then, this is a great game. A really good version of the classic shooter. A joy to play and definitely worth checking out.

INTERFACE 1BIS

SO MANY FEATURES IT'S DIFFICULT TO KNOW WHERE TO START

There are many interfaces for the Spectrum that allow you to use modern, fast storage like SD cards or Compact Flash cards. However for the vast majority of those cards, that is their single function.

They also have their own operating system for access, which uses standard FAT 32 formatting. A good point there, but it also means there are limitations and new commands to use, or in some cases, a completely new operating system to get to grips with.

The Interface 1Bis is a great all-rounder and has many plus points as we shall discover.

ZX MICRODRIVE COMPLIANT

Firstly it is fully Microdrive compatible. It uses the standard Sinclair ROM routines to read and write data to the SD card. This obviously means any software written to use Microdrives, will work with this without any messing about.

USB PORT

Secondly it has a USB port, so you can connect it to your computer and not only use it as a server to host games, but also allow access to the internet.

PS/2 PORT

Thirdly it has a PS/2 port so you can plug in a keyboard or a mouse. The mouse will be treated as a Kemptson mouse too, so again, fully compatible.

JOYSTICK

Fourthly it has a joystick port that emulates a Kempstons interface...

FILE BROWSER

And lastly it has a file browser for fast loading of games. It only supports short filenames at the moment, but it does the job.
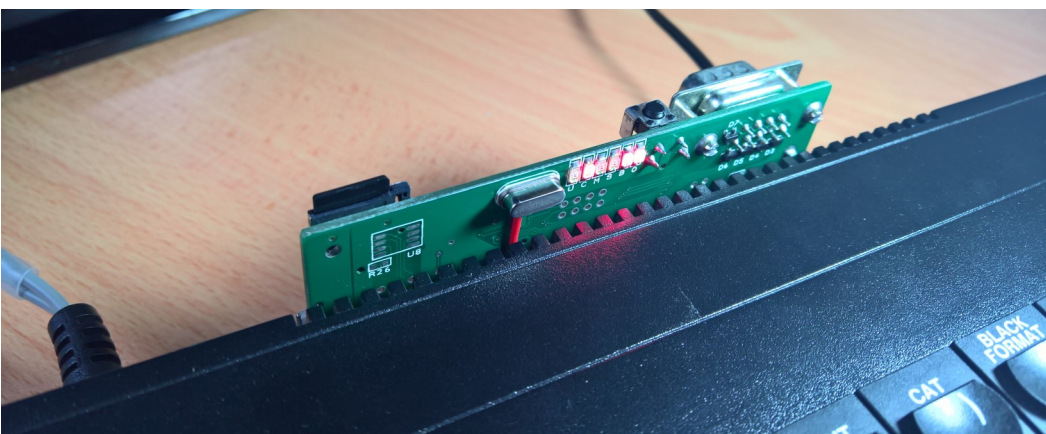
We will look at all of these in order, but first there is some work to do to get things started.

Because the interface has full compatibility with Microdrives, the SD card cannot be FAT32, so this is bad news if you want to drag and drop files onto it. A new SD card will need setting up and to do this you need some software on your PC.

Insert the card and set it to be drive S. Install the prep and copy software by running the setup file. Install the server software, again by running the setup file.

At this point you can actually copy folders to the card, but you are limited to a maximum size of 32mb per folder. To do this, locate a folder with some games in it, right click and select SEND TO.. select Logical Disk Copier (the software you installed earlier).

During this process you set which drive number it will be on the Spectrum, these represent the Microdrives. Don't copy anything to drive 1

though – that's the main interface drive.

I would recommend downloading the game files from the Interface 1Bis website as they are pre-configured with loading screens and poke files. The structure of the data means you can simply select drive zero during the install, and a ton of games will be written to your card ready to use. This takes about 3 minutes per drive, but saves a lot of time in the long run.

Once done you can put the card back into the interface connect up and power on.

Holding the NMI button for a few seconds enables the interface and the right-hand LED comes on. A quick press again and the second LED comes on and you are ready to go.

You can now use the interface as though it were multiple Microdrives.

To select which drive to use, you use the CAT command.

Doing a CAT on drive 2 (the number I copied the files to originally), shows a list of files. You can now load them, first setting the file you want to load and then using the normal load command.

This worked fine for TAP files, but some TZX files failed to load. You can also use SNA files.

The loading is fast but for faster selection you can use the file browser.
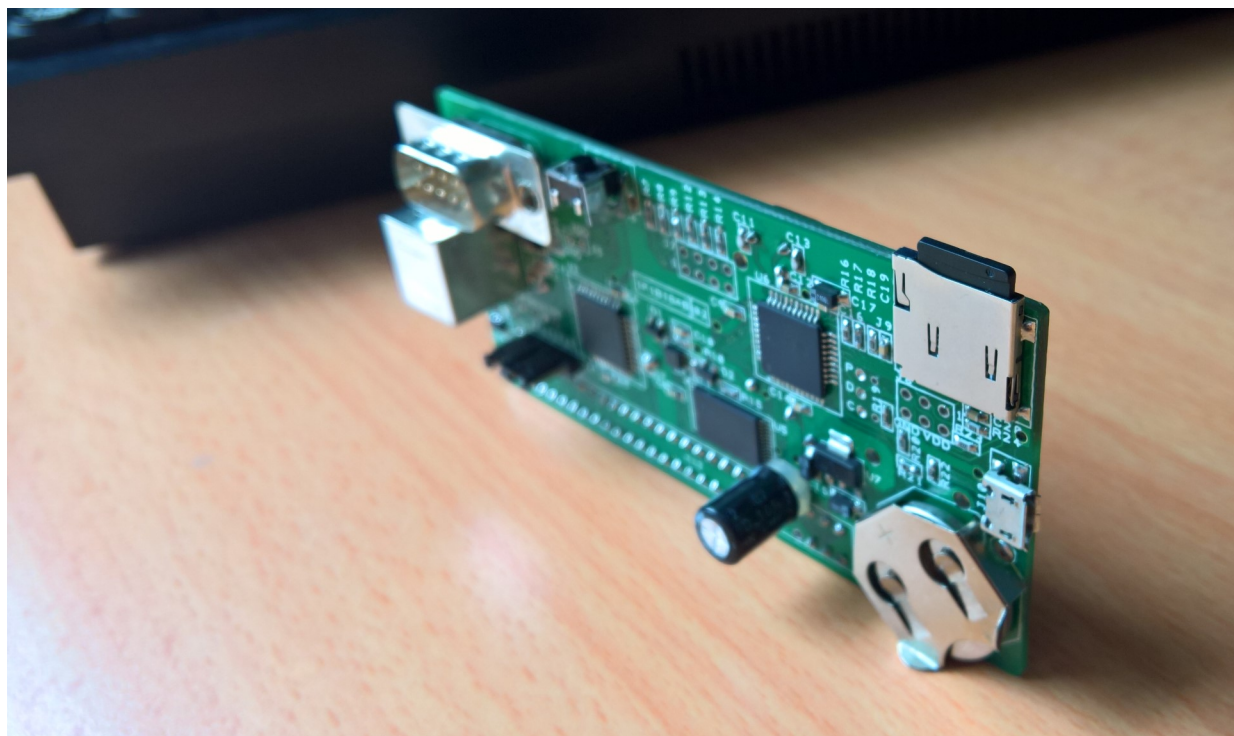
USING THE BROWSER

Once the LEDs are on as before, reset the Spectrum and enter RUN. This will load up the file browser. Here you can see the files, move up or down one at a time, move down a page at a time, or move up and down drive numbers. The main limitation of this is that file names have to be in the 8.3 format.

Once you locate a game, press enter and it will load automatically.

Next onto the saving...

Again using the normal Microdrive commands, you can save code, screens or anything you like to any Microdrive, if they are setup. Setting them up is easy, just CAT them.

Saving is fast, and as I mentioned before, any program that is Micordrive compatible will work. You can create and use subdirectories too.

To create a directory, you add a slash to the SAVE command and this will create a sub directory of that name. You can then switch to that directory by loading it, again remembering to add a slash at the end. And you can get back to the route using the CAT number command.

You can also open TAP files for output, meaning you can write to normal emulator files with a limit of 16mb file size. That is quite a useful function.

Other features include an option to specify a SNAP file that is then written to at the point you press the NMI button. This allows you to create a snap of the game you are currently playing for example. You can also add pokes to files via the file browser, another thoughtful tool.

CLIENT SERVER

Now onto the client / server side of things.

To get this working you have to connect the interface to your PC using a USB lead. Once connected and the server applet is running, the designated folder specified becomes a virtual Microdrive of unlimited size that can be accessed using the V letter as the stream.

All of the things possible with normal Microdrives are available including subdirectroies, loading and saving.

Once connected to your PC this way, the interface, according to the documentation, also has access to any internet connection but there is no details about how to use this, but then again, I'm not sure what the benefit was unless

someone setup a large file store for everyone to share. It is far easier to have the files on SD card or your PC than go out to the net.

To use you computer as a server for the interface, you load the server applet.

You can now create new folders and save files direct to your PC. That is remarkable.

This interface gives a lot of different functions for a very reasonable price, it also has an additional board you can plug in to give you ethernet connectivity.

I haven't covered the mouse connector or joystick port in this review, they work as you would expect!

A great all-rounder then, and something worth considering if you need flexibility, as this card certainly gives that.

SURFCHAMP

New Concepts 1985

The adverts for this game made several promises: The ultimate Surfing Simulation, the most realistic sports simulation ever and the most revolutionary concept yet in a home computer.. What could they be going on about?

SurfChamp is a normal run-of-the-mill game and, to be honest, a bit below average. The thing that set it apart, and that prompted those wild claims was the inclusion of a piece of plastic; a new kind of controller made just for this game. Not a joystick or steering wheel, but a miniature surfboard.

Inside the box you will find, if it hasn't been lost, a large plastic surfboard. On the bottom are various bumps and a small plastic thing that I assume fits into the centre and acts as a pivot.

The idea is, of course, that instead of using the keys, you control the player using this surfboard. A neat idea, but would it work?

The first problem is that it will only work on rubber keyed Spectrums because this is how it was designed. The plastic surfboard sits on top of the keys and the small bumps depress the keys when the surfboard is pressed down.

But before we get to the game, according to the instructions, there is an information program on the other side of the tape. Let's take a look at this first.

It contains general details about surf boards, waves and slang. Things not really needed for the game, at least until you get into it.

Onto the game then, and lets get the surfboard onto the Speccy.

Once the game is loaded it asks for some personal data, as apparently, this will affect your skill based on the type of equipment you chose. This is where the previous information comes in. You are asked for you height, weight, sex, surfboard weight and length. I had to look some of these things up on the internet though so I have no idea how users in the 80's would get this data. Things like length of board versus your weight etc!
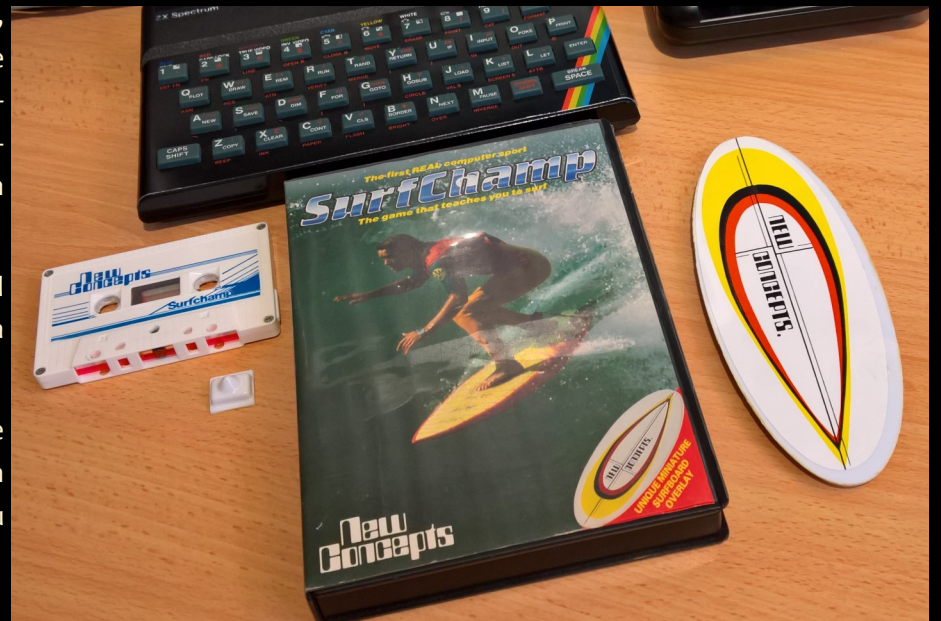
You can choose 5 types of board;

Pop Out – for beginners, single fin thruster –

more manoeuvrability, twin fin – slides more than the single fin variant, two and a half fin – more subtle and three fin thruster – for big waves.

Why does all this sound like a commercial for a razor?

You then get to chose some wet suits based on the type of weather you are surfing in.

Pod – a suit without arms or legs, summer suite and Winter suits for.. well summer or winter, no suit - lets surf in the nude and a leash – now it's getting kinky!

A leash ties you to the board so you can't lose it in big waves in case you were wondering.
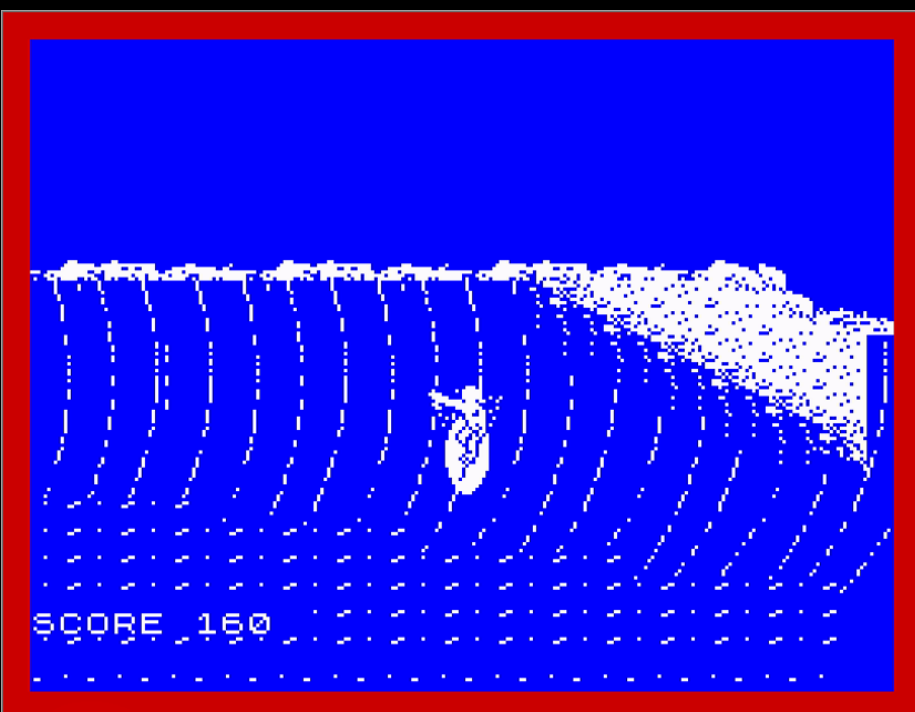
Here the game does nothing when you select a suit but luckily the original owner has written down what to do on the inlay, which was very

helpful.

Your are now ready to start - finally!!

Then you can either practise or enter a competition. Initially I opted to practise so I could get used to the controls.

After the screen draws an uninspiring image of a beach, you walk left and right across the bottom using the 1 and caps shift keys, a very odd combination.
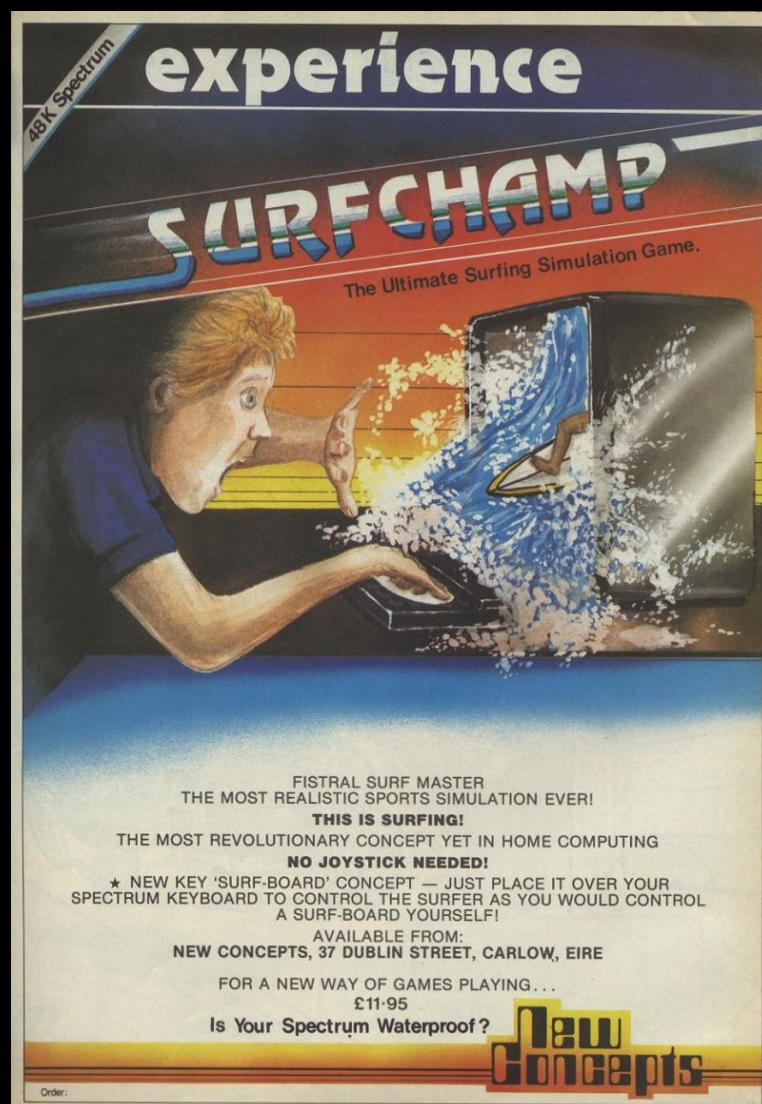
SCORE 160

breaking wave and press '2'. If you are successful the view will change and you will see yourself surfing like a pro. Although I never managed to keep this view for longer than a few seconds no matter

You can then get into the water when there is clear spot with no waves and try to paddle out. You then press the 'A' key to get into the water. Once in you then press the CAPS Shift and 1 key to paddle out. Both these are not under the surfboard, so easy to get to, but a real boring aspect of the game which could have easily missed out.

It can sometimes take ages to get a break to allow you to paddle out.

You can duck under these if you are skilled enough. To duck you press the nose of the board down, or the 'A' key.

Once far enough out it's time to catch a wave. You do this by positioning yourself next to a

what I did with the plastic surfboard. I only got this far a few times after trying for about 30 minutes and even then, the board seemed not to do anything to the player.

You are supposed to be able to move around and do tricks by pressing the right parts of the surfboard, it all seemed very laborious.
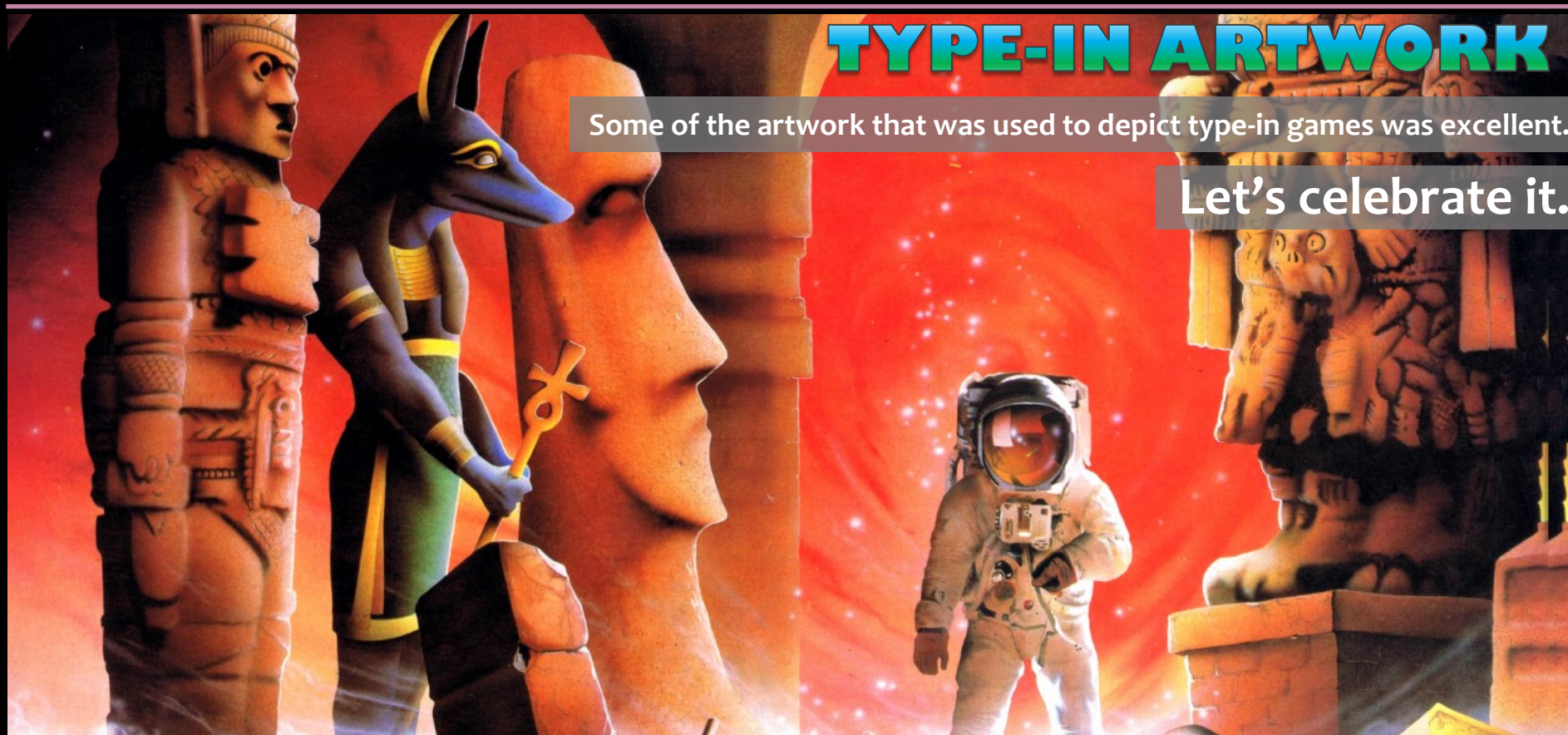
The sound is non-existent. Yes it's all silent. The graphics are poor and the concept short lived.

You could send off for other beeches such as Huntington California or Banzai Hawaii, but I don't think these were ever released. I have never seen them listed anywhere or even men-

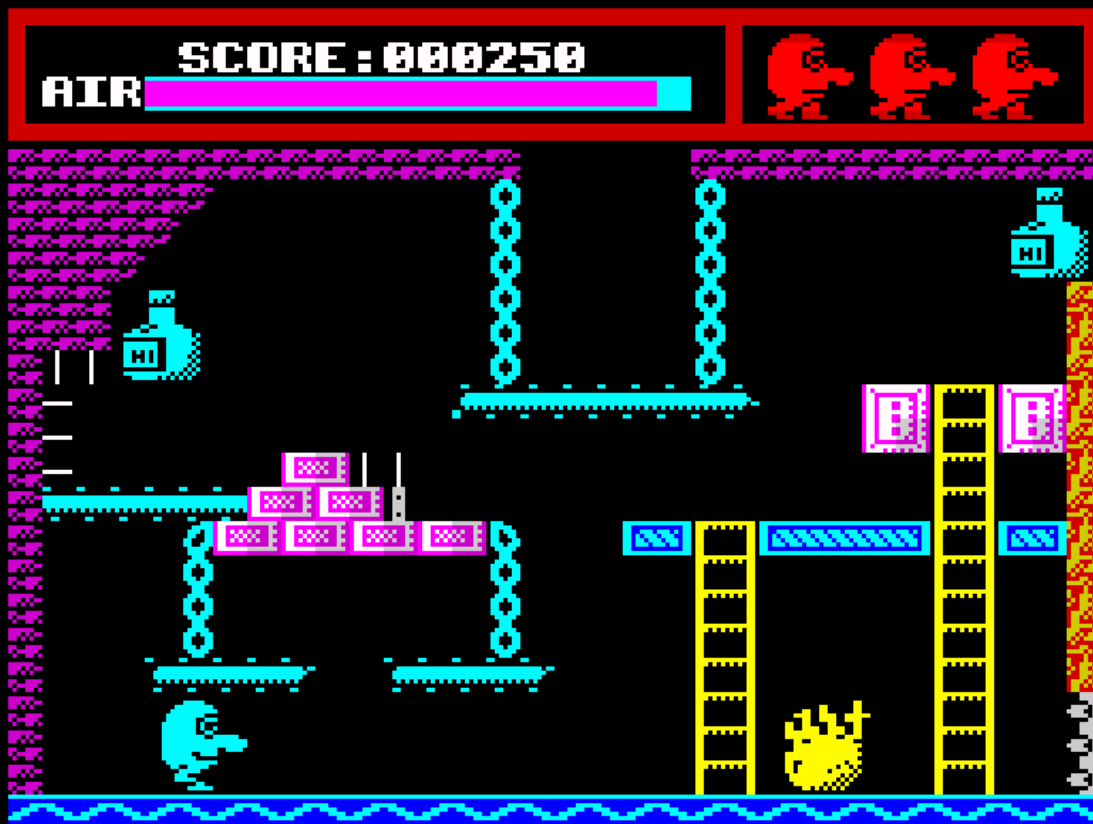tioned on websites like WOS or Spectrum Computing.

Overall – a bit of a let down really. I was expecting great things and was looking forward to trying out the little plastic surfboard but in the end I was glad I could pack it all up and put the box back on the shelf.

TYPE-IN ARTWORK

Some of the artwork that was used to depict type-in games was excellent.

Let's celebrate it.

Willy Wino's
STAG NIGHT
Silverbird 1988

Willy Wino's Stag Night is , at first glance, just another Manic Miner clone, even the names hides nothing. However, once loaded, there are several differences, not all of them good.

The instructions say little other than guide Willy around collecting more booze! Hardly a good message for youngsters is it. Now, where's my wine...

The idea is to collect a set number of items across multiple screen to be able to move onto the next stage, more rooms and more items.

The rooms consist of platforms, ladders, conveyor belts and many other obstacles to negotiate before you can move on. There is, just like Manic Miner, a set amount of air, which slowly reduces as you play. This for me moves too quick, meaning to complete just the first level you have to be pixel perfect and not pause for any amount of time. This spoils the game for me.

The map is laid out in such a way that you have to visit a screen several times to be able to get all objects within them, this is a

good idea and works well. Some of the objects though do appear to be placed in such a way that you can only get them by losing a life, another less satisfactory game mechanic.

The graphics are large, and this makes it look more cartoony than Manic Miner, and the movement and animation are very well done and smooth. There's even a mutant telephone in there!

The screen layouts are challenging and interesting and always gets you thinking about how to complete them.

Sound is limited to footsteps and little tunes for collecting bottles and completing a level.

The control works well and is not just left/right/jump. Here you also get up and down to navigate the ladders.

A nice game then, and worth checking out if you like platformers.

Mutant Monty – Artic 1984

Monty has two main ambitions in life, get rich and be a hero. In this game he gets a chance to do both.
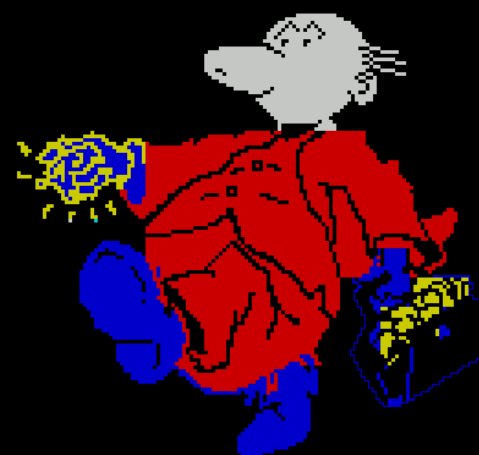
He must collect all the gold from 40 screens, and finally rescue the damsel in distress.

The main game is a dodge-em-up, with Monty continually moving. Your task is to guide him through all the screens, avoiding the various nasties. All the gold on each screen has to be collected before he can move to the next.

The control mechanism is tricky to use, and even after several minutes playing, it was still hit and miss if you could guide him safely. The main problem is that Monty moves faster left and right, than he does up and down, and this makes it even more frustrating.

Because of the continuous movement, you find yourself either stabbing the keys to keep him hovering around the same spot, or bumping him into the scenery and waiting for the enemy sprites to move on.

The graphics are large and well-drawn for the most part, with sprites being animated and moving smoothly. The backgrounds are varied with some interesting zig-zag lines for parts of the walls.

There is a continuous tune that plays throughout, but luckily you can turn this off. There are other spot effects too, but to enjoy this game, you really have to spend a lot of time getting used to the control system.

Familiar?

Anyone who thinks this game looks familiar should look at the 1985 type-in from Your Computer named Mad Caverns. It is almost an identical game by the same author apart from the sprites. There is even the zig-zag background graphics. The type-in is harder though due to the control being more infuriating.

DOWN THE RABBIT HOLE

THE GAMES AND STORY OF RABBIT SOFTWARE

Rabbit software started producing Spectrum games around November 1983, but had been publishing games for the Commodore 64 and Vic-20 for some time, having come into existence in 1982.

Set up by Heather Lamont and Alan Savage as an offshoot of a computer company in Harrow, their move to the Spectrum was a brave decision, especially with the masses of other games now flooding the fledgling market.

The company received many games from eager programmers, most written in BASIC and most not up to scratch. Instead of dismissing these games, Rabbit had other ideas. If the game idea was thought to be good enough they helped them compile the BASIC into machine code and sold them as part of their range.

The company also moved into the tape duplication business, setting up their own company

called copy-soft.

They came into the news when director Alan Savage got fed up with a distribution deal that allowed them to distribute American games in the UK.

They soon found out that many had bugs and proved useless. Despite this, the company, Victory Software still demanded payment. Unable to sell the games due to the problems, Alan instead decided to simply give them back.

He hired a van, filled it with the 4000 faulty Vic-20 games provided by US software supplier, drove to London and dumped the whole lot outside their solicitor's office.

I like the sound of this guy.

In a feature from Crash magazine in Feb 1984, Rabbit said they were looking forward to a long life in the software industry. It is tremendously sad then, to find out what their fate was, not long after that interview.

Let's start with their first set of games, based on the product code though, and the story will unfold as we progress.

The company put out two distinct cover designs, the early ones with hand drawn inlays and little

The Spectrum Show

in the way of company logos and the later ones with a red top banner and better art work.

I have a mixture of these styles but at least have all of the games, many of them, as we shall see, being arcade clones.

Escape MCP

SCORE   2840   HIGH SCORE   00

Taking ideas from the film Tron, you find yourself trapped inside your Z80 processor and to escape you have to get to the MCP and disable it on the tenth level. To do this you will first need to find the MCP pass.

The game is a simple maze affair with a single large chasing enemy that although is meant to look like

the ships from Tron, look more like the letter M. It tracks your movements around the maze and you have to first get to the key, then to the exit. You can collect the floppy disk for extra points if you want.

If you get to the exit you are treated to a rendition of the Star Wars music for some reason and the next level begins.

The screen layout consists of the maze drawn in flashing blocks, this is bad on the eyes! The chasing robot moves smoothly but your character runs in 8 pixel blocks.

The trick is to lure the robot towards you and then dash off to get the key or to reach the exit.

Sound consist of a few standard beeps.

Later levels have vanishing walls as an additional challenge. The final level reveals the Tron influence with the walls vanishing to reveal the word TRON.

There is no grand finale either if you complete the last level, it just loops back to level 1.

The Games And Story Of Rabbit Software

Paratroopers

Pakacuda

This game was a version of the 1982 PC game of the same name which in turn was a copy of the 1981 Apple 2 game Sabotage.

This simple game is very addictive. You have to stop the paratroopers landing by shooting their parachute, or by shooting them. You can also take out the helicopters that drop them.
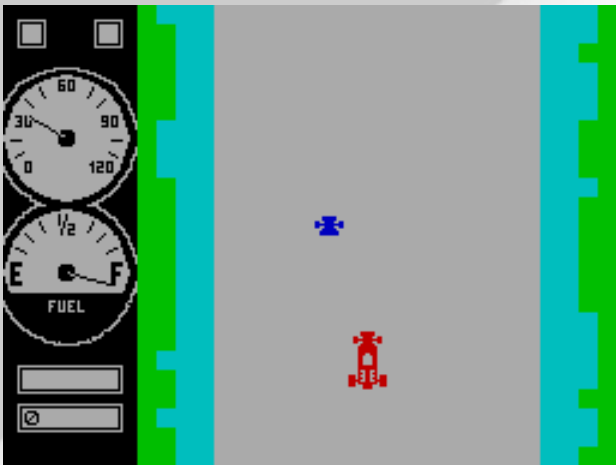
You control a single large gun at the bottom of the screen that swivels around really nicely and the gameplay is fast and frantic.

The graphics are basic, but do the job and sound is OK for an early 16K game.

The aim to get a high score by surviving longer, nothing more, and this is the strength of the game. Simple and easy to play, addictive and fun.

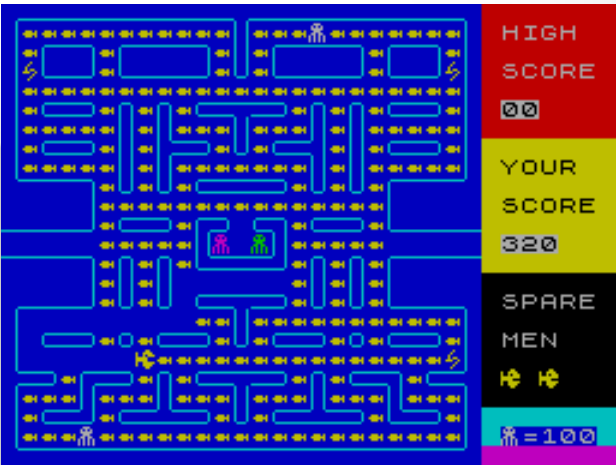From a copy of an Apple game to a copy of an arcade game.

Although you can't tell from the inlay as soon as the game starts you know it's a Pacman clone. It even has the Pacman start tune!

The gameplay is the same as the arcade game; run, or in the case of this game's story, swim around eating little fish.
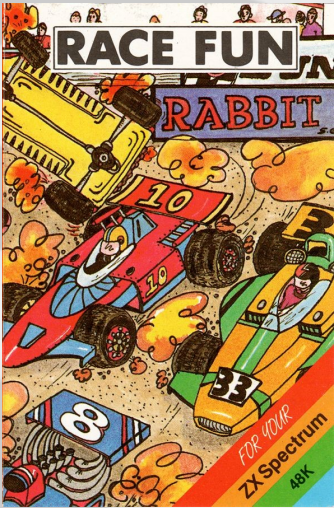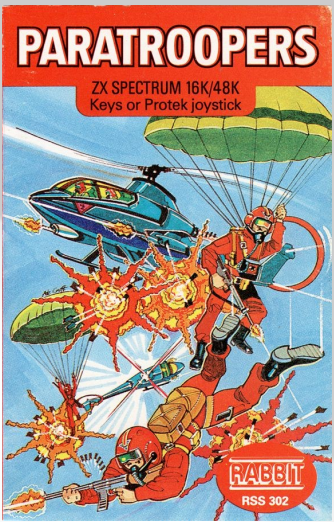
The power pills have been swapped for electric eels that when eaten allow you to eat the chasing monsters for a short period of time.

You can move from one side of the screen to the other via the tunnel and there is also bonus items that pop up like cherries (I have no idea what cherries are doing underwater though).

The graphics are character based and apart from your Pacman cross fish are not animated.

Sound is limited to the start tune and item eating.

There is nothing that stands out about this game. It is playable for a few games and it does give you three levels of difficulty, but it is just another Pacman clone.

Race Fun

With games coding in its early days I suspect that Race Fun was an attempt to give the players something like Pole Position. The 3D was obviously impossible, so the author opted for an overhead view.

The gameplay is also subtly changed and you have to go as far as you can on the limited fuel you have. If you slow down or hit anything you lose fuel and so lose points. The faster you go the more points you get, so it's a trade off.

The road moves down the screen in character jumps and starts off straight, but soon begins to narrow and twist left and right. The narrow sections usually mean it is almost impossible to overtake too.

The graphics are large and chunky with 8 pixel movement but control limits the gameplay. You can only press one key at a time, so for example, you can't accelerate and move left!

The game is fun to play, with some average sound.. and trying to beat your previous score makes it quite addictive.

Sadly there were many games similar to this available, some even as magazine type-ins.

Quackers

Quackers is obviously a clone of the arcade game Carnival although it does have a few additional parts and omissions.

As the game starts you get rows of ducks, rabbits and what I presume are black cats, but I'm not entirely sure. Above them are green smiling faces and a scrolling wall.

The idea is to shoot all of the targets before the timer runs down and that is a fairly difficult task. Unlike the arcade version, there is no limit to the number of shots you have, instead you can happily blast away as much as you like.

The graphics are a bit basic, but scroll smoothly enough and sound is used to good effect. There is no carnival music like the arcade, but this a 16K Spectrum game. Once all of the items are cleared you then get to shoot a turtle for some reason! Hit this, and it runs the other way. Shoot again and it runs back. The idea is to keep shooting it and scoring points. The inlay says you have to keep the turtle hopping to win a super prize but I am not sure if there is an actual prize. It is a good point-scoring section though.

Centropods

Centropods is a Centipede clone as you might have gathered. This version gives us most of the arcade elements too and plays OK.
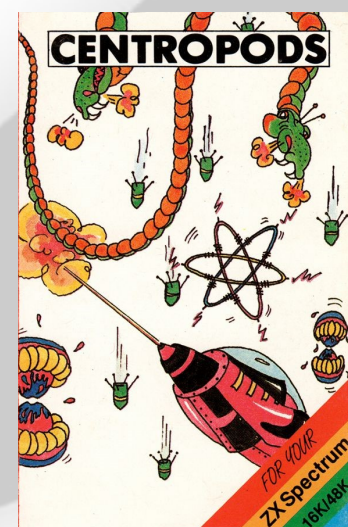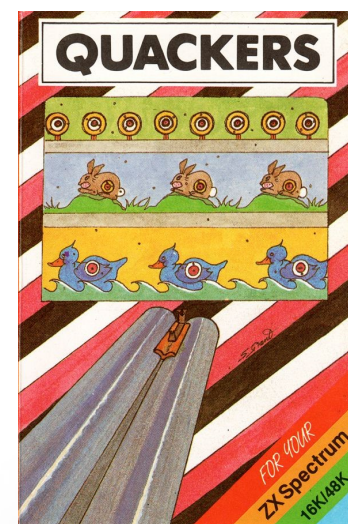
The graphics are well drawn and move well, the spider is there, so is the flee. The sounds is a bit bland, using basic beeps, but it does the job I suppose.

Vertical movement is done by holding left and right keys at the same time and the player moves up, releasing the keys and the player floats back down again. Very awkward and certainly different from the arcade experience.

The centipede always reaches the bottom, at least it did in my games!

Not a bad version then, just like the others in this first batch.

Although not setting the games world alight, the games were, for the period, average and playable, and it wasn't long before the next games arrived, in mid 1983

Phantasia

Although based on many of the shoot-em-ups in the arcades, I can't quite match this one. It follows the usual format of groups of aliens swarming about and you have to destroy them. Once you destroy a set amount of the current attack wave, the next will arrive, meaning you will have more than one type at a time. Obviously this means things get very tricky on later levels as you can have four different attack waves at the same time.

The graphics are adequate and move at a fair speed, and the control matches the speed thankfully. There is an impressive amount going on on-screen at times, with little slow-down.

Sound is used well, with varying warbling effects for the attack waves, firing and explosions, plus an overused effect when your ship gets hit.

This game feel like an arcade game, one of those that wasn't famous, but sat there occasionally getting a run when the other machines were taken up.

It's not a bad shooter and can be very challenging.

Back to the arcade clones again, and this time not even a name change..

The Games And Story Of Rabbit Software

Frogger

There should be no need to introduce Frogger. Get your frog to the holes at the top of the screen, avoiding the busy road and turtle infested river.

You have limited time to do this so speed is of the essence. This games add a maze of deadly walls between the road and the river, so there is another obstacle to get past.

The graphics are fine and move smoothly enough, although the logs move in character squares and the cars don't. Your frog also moves in character jumps which can be tricky when trying to get across a road of pixel moving cars.
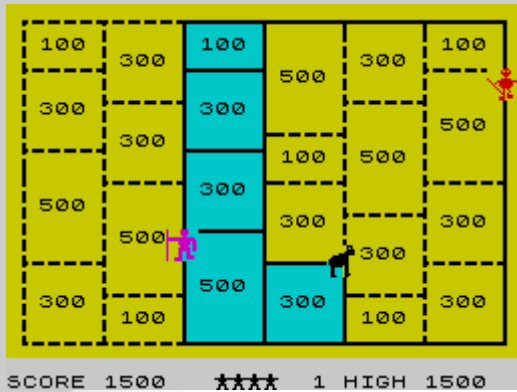
Control is the thing that lets this one down. It is all too easy to keep you finger down too long and poor little froggy gets squished or drowned.

Not the worst frogger clone by far and Rabbit games seem to be improving with every release.
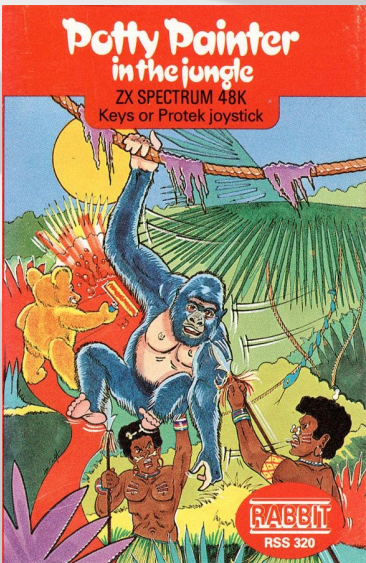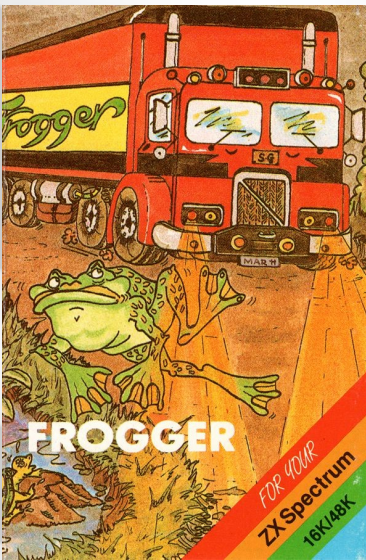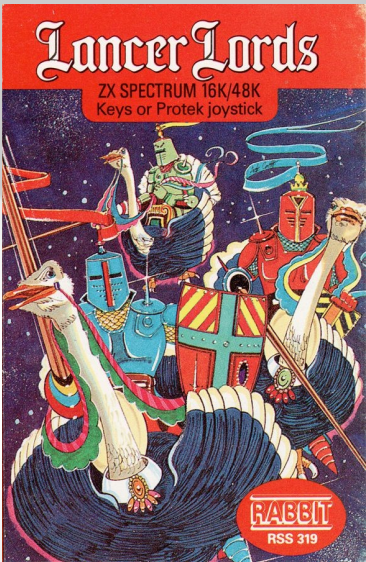
Lancer Lords

Lancer Lords, or as the name of the SAVE code in the BASIC program more accurately states, Joust, will immediately tell you what this game is.

Riding your mighty ostrich, and armed with your laser lance, you have to defeat the other knights. To do this you have to collide with them, but be higher up the screen than them. This means a lot of flapping to get yourself in the right position and then charging in.

This is not as easy as it sounds because there is inertia which makes controlling the player pretty difficult. Once killed, the knights leave an egg which you then have to smash to completely get rid of them.

As each level begins, the background changes the number and speed of the opponent increases. This is quite a decent game once you get the hang of the controls. The graphics are nice and smooth and there is some nice sound effects. Things are looking up for Rabbit.

Potty Painter

This game is a version of the arcade classic Amidar and the premise is simple; move around the defined blocks, filling in the edges as you go. Once a full block is complete, you get the score inside. Chasing you are various things that will kill you upon contact.

It's a simple game that I never really saw the attraction of in the arcades and this version does nothing to change that opinion. In fact no version I have played would change my opinion.

You have a freeze key which halts the chasers for a while, which is useful to get out of tight spots, but you can only use it three times per level. This replaces the arcade bounce button where the chasers are bounced up in the air to delay them.

If you complete the level you then get two bonus games, one which to be honest I had no idea what to do! A teddy bear drops down a path towards some bananas. None of the keys seemed to do anything in this stage! Then the game changes and you control a paint roller being chased by teddy bears. Here you have to collect the scores before the timer runs out. If it runs out the scores decrease until the blocks are worth nothing.

Having checked the arcade version, this also happens. Well you learn something every day and full points to Rabbit for including them.
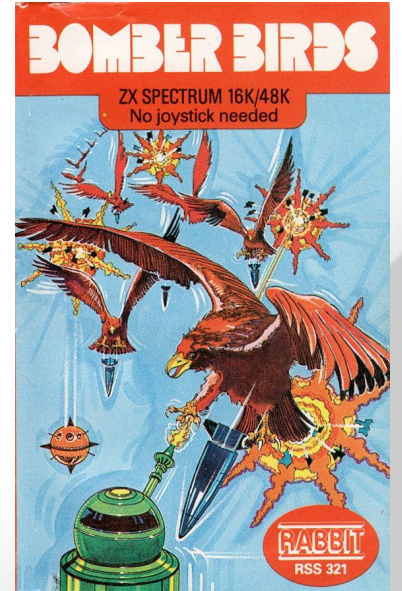
Bomber Birds (later renamed to just Birds)

This game seems to take a huge step backwards for Rabbit. It has jerky movement and poor gameplay and doesn't seem to be in the same league as the previous releases. The other games were written by John F Cain but this one has no credits - maybe why it's lower quality?

The game itself reminds me of a type-in game and the Softek game Firebirds, but that is a million times better than this offering.

Aliens jump down screen accompanied by clicks and you just line up you ship into the same character column and shoot.

Some of the other aliens move about and there seems to be a duck that flies across the top of the screen for some reason.

I have no idea why they released this but it's a below average game and only worth a look to have a laugh.

Murder

This was the final game to be released in 1983 and was a complete departure from the arcade games that had come before. This is a sideways jump to board games, in particular Cluedo.

You play chief inspector Pincher of The Yard and you have to deduct who the murderer was from the group of usual people. Just like Cluedo, you also have to correctly deduce the weapon used.

This is a long winded game where you move from room to room and ask the people you find one of 4 questions. You have to enter the room names to go to them, and you can't go direct, you have to move between adjacent rooms first which is all very tiresome. When you find someone in a room you ask them a question, or four, and keep notes as to who was lying. This goes on for what seems like years!

When you have done all your detective work you can then accuse someone. I always got it wrong because I got bored. If you do get it wrong, the game then proceeds to explain who it was and why. It then usually crashes.

The murder, murderer and weapon are random each game but this is really a bit of a boring thing to play unless of course you like this style of game.

A bit of an odd game to end 1983 on.

1984 Arrives

Deathstar

Obviously taking ideas from Star Wars, this game throws you into the trench scene from the movie and uses some nice 3D effects to give the impression of hurtling to your death. Fighters zoom towards you and you have to shoot them or dodge them. They sometimes fire back so you have to be careful and it does have similarities to the arcade game, just from a different perspective.

This is another game written by John F Cain but not as good as his previous ones in my opinion.

It looks nice but game play is a bit poor. The graphics do their job and the sound is average, but there is simply no gameplay here. Most of the time it's luck if you don't get destroyed and sometimes you get blown up when you never even saw the missile.

With the first game of the year out things suddenly took a turn for the worse and tragedy struck.

The Games And Story Of Rabbit Software

In May 1984, while driving on the M10 motorway in Buckinghamshire, Alan Savage was involved in an car accident. There was a collision between his Mercedes and a VW Polo which resulted in the other vehicle upside-down in a ditch. As arguments raged as to whose fault it was, Alan left the scene, later to be found hanged nearby with his own belt – he was 36. He had tried to kill himself before, so his state of mind at this time was unknown.

Fellow director Heather Lamont stated the company was doing fine and had no worries in any area, but was understandably upset by the incident. Staff were devastated, but vowed to go on. Heather owned the majority share, being 51%, with Alan having the remaining 49.

It was tough going for all concerned but later the same month Rabbit tried to reassure fans that they would continue, despite the sad loss of Alan.

Rabbit: 'We'll go on without Alan'

Heather Lamont, sole boss of Rabbit Software following Alan Savage's suicide, has vowed: "We will carry on."

Rabbit's 25-strong staff were stunned when they heard that Mr Savage, 36, had hung himself after a motorway crash.

He had been driving his white Mercedes, a recently restored collector's mdoel, when he ran a VW Polo off the M10 in Buckinghamshire.

The VW finished upside down in a ditch, trapping and injuring a woman driver of 42 and her 73-year-old friend.

Mr Savage left on foot — leaving behind a woman friend — after an argument with the driver and police were alerted because the VW driver thought

The Pit (Vortex)

Around the same time, they announce a new game The Pit that involves the player in a cavern having to destroy or dodge obstacles like bunnies, witches and blobs. This game was never released.

In July 1984, Heather put the company into voluntary liquidation, just 14 weeks after the accident. She claimed all debts had been paid, but since Alan's death, sales had slumped and the struggle was now just too much. Other reports claimed they owed close to £1 million. The actual debt was £220,000, with assets of £284,000. This was disclosed at a meeting of creditors on August 10th.

Rabbit for sale

Rabbit Software is up for sale, just 14 weeks after joint founder Alan Savage commited suicide.

Managing director Heather Lamont, 23, put the company into voluntary liquidation.

She said she and her staff had successfully conquered the problems caused by Mr Savage's death — orders and payments slowing down — but half the profits would go to Mr Savage's estate. Most of Mr Savage's debts had also been paid.

She said that, although she was sure Rabbit would continue in some form, for her it was no longer worth the struggle.

Miss Lamont and Mike Cooper, of agents Rosan and

The majority of staff had found other jobs by this time and the company was just a shell, a shadow of what it used to be.

Strangely, the following month, August, Rabbit announce a new game coming soon named Jolly Roger. Maybe a last ditch bid to try and trade themselves out of liquidation?

Remember that name though, we will be coming back to it later.

With the company still in trouble, rumours began to circulate that Virgin would be buying Rabbit Software, these were denied by Terry Grant, Rabbits Software Director.

OUT OF THE PIT

Rabbit Software is planning a new game that will feature a fairly unlikely collection of enemies. Provisionally entitled *The Pit*, it's quite likely it will be called something like *Vortex* once it gets out of the testing stage.

According to Rabbit director, Terry Grant, "the game is set in a cavern with the player taking control of a ship". Among the obstacles to overcome will be "witches, bunnies, ghosts, televisions and funny white blobs — but I don't know quite what they are." Neither did Mr Grant seem to know the exact aim of the game, but he was sure that it was very good.

But whatever its final qualities, Rabbit is planning the added attraction of giving away a free blank tape with each copy of *The Pit* (or *Vortex*, or whatever it is going to be called). This might, of course, be quite a convenient carrot to dangle since the company's just acquired a tape duplication machine — which probably means it's got a cheap, bulk-buying deal worked out for raw tape.

Rabbit debts top £200,000

A STORMY meeting of Rabbit Software creditors on August 10, appointed certified accountant Stuart Andrew Edgar as liquidator.

Edgar was nominated by Rabbit shareholders, the creditors putting forward no alternative nomination.

The total debts of Rabbit, which went into liquidation three weeks ago, amount to over £220,000. While the company has assets of just over £284,000 it realisable value is put at £182,700. The assets are now in the care of Rosan & Co, of Croydon, Surrey, acting for the sheriff of London.

ON THE OCEAN WAVE

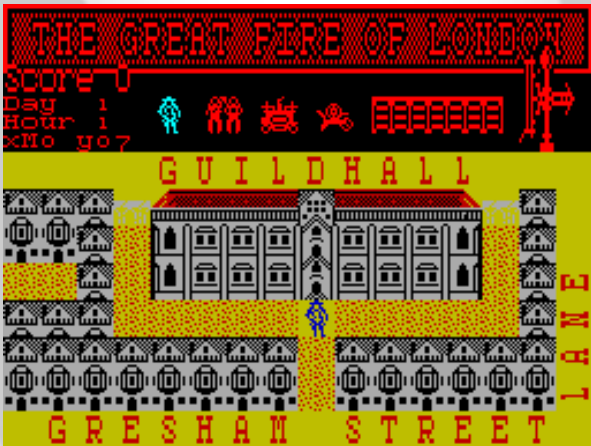Currently undergoing manufacture at Rabbit Software is *Jolly Roger*, a saga of salty life at the helm. Says Rabbit director, Terry Grant, "It features a jolly Jack Tar sort of character whose ultimate goal is to locate and collect the masses of hidden treasure." Unfortunately, but quite understandably, this is kept behind locked doors. So the first thing to do is find all the keys; having got a bunch

Out Of The Blue

Then, out of the blue, with all this uncertainty, a game was released. In 1985 The Great Fire of London hit the shelves seemingly from a company that were no longer producing games. However, on closer inspection it seemed that, although this was sold under the Rabbit label, the product code had changed from the usual RSS (which was Rabbit Software) to VGR – obviously Virgin, but there had still not been any official announcement of any buy out or takeover.

The Great Fire Of London

This game is another move away from the popular arcade games put out by Rabbit and moves more into strategy. The only problem with strategy games is that you need detailed instructions, and this game has very little.

You control a chief person, no actual title or anything, just someone of importance and have to stop the Great Fire of London in 4 days. The game begins and the fire soon starts, so it's a race against time.
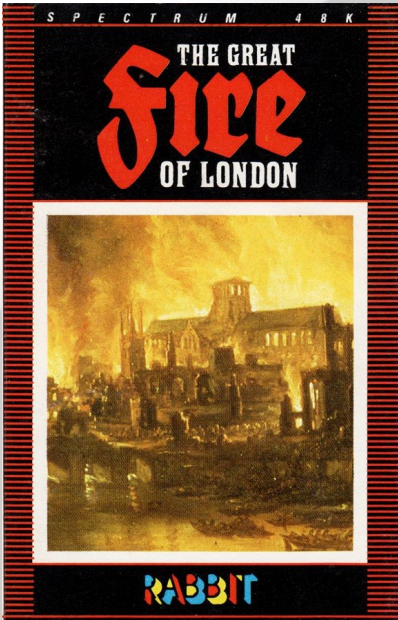
To stop the fire you have to utilize three things; water pumps to put out or control the fire, demolition gangs to knock down buildings so the fire doesn't spread and gun powder gangs to... blow things up. Presumably to also block the spread. This is made almost impossible due to the lack of instructions. There is no indication of how to control these separate elements or how to set them to work.

You run around the huge map of London looking for one of them, when you find them you press fire and when the icon at the top of the screen lights up, they follow you. You then drag them to the fire, press fire again to stop them following you, and nothing happens. They stay there, but do nothing.

I can see the idea, but for the life in me, can't get anything to work. I have read reviews, checked the inlay and nothing actually states what you do.

The game was released at a budget price of 3.99 but even so it seems odd that nothing seems to happen when you place water pumps or demolition teams anywhere.

The End

Following this release there was a long period of silence until in June 1985 when news broke that Virgin planned to buy the company as previously rumoured. In November, they did just that, and prepared to re-released all of the back catalogue. Rabbit were no more and yet another software company faded into history.

A sad ending to a company that had been there from before the Spectrum was launched. Although I can't say the games were fantastic, or that any of them, maybe with the exception of Paratroopers, were memorable, but some of the programmers responsible moved on to better things, and the games were definitely improving.

John F Cain wrote most of the games for Rabbit, and later went on to give us classics such as Booty, Marble Madness Construction Set and Thunderbirds.

Un-Released Games?

But what of those un-released games? Remember Jolly Roger? That was written by John and was set on a pirate ship. You had to collect treasure from different rooms while avoiding pirates, sound familiar? More than likely this was of course Booty, released in 1984 by Firebird, just after Rabbit went under.

The other un-released Rabbit game, The Pit, had a description spookily like Exodus, another John F Cain game.

It was always sad to hear when a software company was lost, and even sadder when you consider the circumstances.

The games of Rabbit Software live on though through emulation, and although you may not realise it, many games, not just the ones on this feature, have their own story to tell.

HOPPING MAD?

Virgin Games have acquired the **Rabbit Software** name and intend to use the label to sell mid-priced titles on a range of machines, including the Spectrum. This prompted the Virgin team to dress up in bunny suits, dash off to the local park and hug a tree while trying to look cute and endearing.

Nick Alexander, Big Bunny on the Virgin team (in the black cossie), sees the label supplying good, unusual software at a price people will be willing to pay: £3.99. The first of these games, *The Great Fire of London* is reviewed in this issue's Front line.

Bangers & Mash

Bangers and Mash are two cheeky chimps and they love a nice fruit pie. Before they can enjoy this fruity food feast, they must first collect the fruit from the forest. Things are not going to be easy though as there are many nasty things to avoid, all out to hinder them.

Mrs. Snitchnose, an evil witch, has sent a host of deadly creatures to get in the way including hedgehogs, spooky ghosts, skeletons and beetles. Luckily Mash has got rid of some of them with his mud pies, but because of this, he has been banned from the forest. This just leaves

Bangers to collect the fruit, rescue Mash and get home for tea.

This delightful platform game is fun to play and is very challenging. The screens are vertical, or so I thought until I explored a bit more and found a whole new area to the left of the starting location. Some fruits are aligned in such a way that you have to jump up first, then across and drop down to collect them, and there are vanishing platform to contend with too. Later you will encounter falling log platforms, and spinning log conveyors and slippery banana skins.

Sometimes flowers grow from the ground or platforms and these have different colours. Collecting these will give you a variety of different things, but the red ones will kill you so be warned.

At the bottom left of the screen you will see the remaining fruit count before you complete the level and of course the pie.

Bangers can avoid the evil beasties or throw his own mud pies at them. Throwing pies reduces the score

though. The ghosts and skeletons are particularly tricky as they are only knocked back slightly when hit by the pies and you have to use a lot of them to finally persuade them to leave you alone. The best course of action if a ghost arrives is to drop down a few platforms and then go back up. Rather that than losing a life.

The graphics are great, with colourful and detailed backgrounds that scroll in character squares to avoid colour clash, but it's very well done and doesn't detract from the gameplay.

The sprites are large, well-drawn and well animated, and look great. I'm sure the hedgehog sprite is Spiky Harold!

The sound is adequate with reasonable sound effects for various actions along with a nice little tune that seems to play at random.

I enjoyed playing this game, even if it is based on the children's TV show from 1989!

THE
TRADER
TRILOGY

Pixel Productions 1983

When I saw adverts for this game way back, I always wanted it. I always wanted to see just how great it was, and I avoided playing it for years; in fact until a few months ago when I finally got the real boxed game, and what a fabulous box it is.

Reading the manual gives you some idea of the game, but not much. There are some nice touches like the trading certificate and a map of the systems you will be visiting.

You are a trader, and the game follows a linear plot, almost on rails, with you interacting a few times. You start by buying items to fill your hold and use your credits. The aim is to make as much profit as possible when you reach the end of the game, which as I have said, because of the linear game play, always happens after a set number of events.

The first thing to disappoint me was the graphics. They look like a conversion of the ZX81 game, although there are a few user-defined graphics. If you didn't know after the first few minutes of play, it soon becomes apparent that the game is written in BASIC.

After landing automatically on Epsilon, it's time to fill up your ship. Here you enter the number of each item you want includ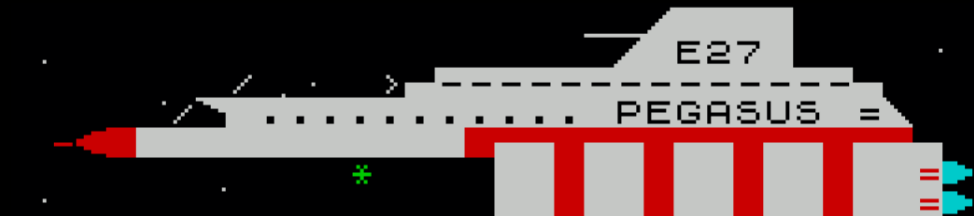ing the all important fuel. Obviously not knowing where you will go makes this tricky to get right so I randomly picked a few things I thought might sell. The manual has hints as to what is required where, and how stable prices are, I think the randomness of the game means you have a 50% chance of selling something higher than you bought it for.

Take off is automatic and for some reason at this stage, I began to start liking the graphics.

We head for PSI and are told some basic details before landing. Once on the surface some aliens arrive and introduce themselves. The blob-like things feed from brain waves, so I get asked questions. The first question had me reaching for the manual and I get a nice reply from the game. That shows a bit of humour.

The questions continue before we can get down to selling things.

A random event usually takes place here, sometimes they take things off you, sometimes they ask you to take cargo.

```
TODAY'S PRICES

> HOPPER FUEL        110   PER FILL
  PETROCHEM           20   /UNIT
  MUNCH               11   /UNIT
  SYNTHOMUNCH          5   /UNIT
  BOOSTERSPICE       145   /UNIT
  GOLD                40   /UNIT

  INPUT HOW MUCH YOU WANT OF
  EACH COMMODITY.

  YOU HAVE    1000 CREDITS
```

```
WELL HUMAN
IF YOU WANT FUEL
WE ARE ONLY
INTERESTED IN
ONE THING...
```

Next stop is the moon Beta and here you have to guide your ship to avoid clouds and enter orbit. Once in orbit you guide the ship next to the moon and it's time for part two to load.

After an automatic landing sequence it's into the bar to do some trading. When shown your inventory I copied the screen for reference, making things easier. I imagine a pen and paper would have to do back then.

Now you barter and eventually get a price. At this point someone steals some fuel! Again we get an auto-take off sequence and on to the next event, destination, the moon Beta, which involves a tricky navigation into a narrow tunnel to dock, using up and down controls.

Once you have landed on Beta, you have the option to sell some of your cargo to the robot population. However, there is no haggling here. The robots tell you a price and you just decide if you want to sell or not. At this point you should remember what you paid, but I'd forgotten!

After leaving Beta, we travel to Gamma and another arcade sequence. Here you have to take the ship down to the surface and grab the fuel making sure you get back up within 1 minute.

Sometimes random events happen. A ship appear next to mine, which had not happened in previous games. The space police check your ship for illegal goods and act accordingly on their findings.

The final destination is the scary world of Delta, for which there is a change in game style. Usually you get mugged here and then have to get back to your ship through a maze-like map, where you will encounter random events, such as meeting strange creatures or some of the generally anti-social inhabitants of Delta.

You head back to epsilon and the end of the game where you sell your cargo and your credit is added up.

The use of primitive graphics is starting to grow on me, I don't know why but definitely worth a play.

MIND YOUR LANGAUGE

GEORGE BECKETT DELVES INTO MORE LOGO

In the previous article, we started to look at the Logo programming language - focusing on turtle graphics, which is the functionality it is most well known for. However, Logo is so much more than turtle graphics, able to handle general-purpose applications, in the same way that BASIC does. In this article, we will delve into some of this functionality and examine a simple but effective text-adventure game.

While almost all 1980's microcomputers shipped with BASIC as their built-in language, it would have been perfectly plausible for them to ship with Logo instead. Sinclair Logo provides comprehensive support of the ZX Spectrum's hardware - including colour graphics, sound, printing, and floating-point mathematics. To demonstrate its flexibility, I have created a Logo version of the Zeller's Congruence example, which - as we saw in earlier articles— works out the day of the week corresponding to a given date. An implementation is listed in Figure 22, with a top-level procedure called FIND.DAY, which uses a procedure called ZELLER to do the actual computing. To run the program, you type FIND.DAY and, when prompted, type a date in the form DD MM YYYY.

This version is similar in functionality to the BASIC version, and has a similar layout and length. As we noted before, the syntax is a little unusual by today's standards, making it a little trickier to read. However, once you are familiar with Logo, it should be no more chal-

```
?FIND.DAY
Enter date
 23 04 1982
Friday
?
```

Figure 1: Sample session of Zeller's Congruence.

```
TO ZELLER :D :M :Y
  IF (:M < 3) [MAKE "M (:M + 12) MAKE "Y (:Y - 1)]
  MAKE "J INT ( :Y / 100 )
  MAKE "K REMAINDER :Y 100
  OUTPUT REMAINDER ( :D + INT ( 13 * ( :M + 1 ) / 5 )
                  + INT ( 5 * :K / 4 )
                  + INT ( 21 * :J / 4 ) ) 7
END


TO FIND.DAY
  PR [Enter date]
  MAKE "DATE READLIST
  IF NOT EQUALP ( COUNT :DATE ) 3
    [PR [BAD INPUT. ENTER DD MM YYYY] STOP]
  MAKE "DAY FIRST :DATE
  IF NOT NUMBERP :DAY
    [PR [ERROR: DATE MUST BE NUMBER] STOP]
  MAKE "DATE BUTFIRST :DATE
  MAKE "MONTH FIRST :DATE
  IF NOT NUMBERP :MONTH
    [PR [ERROR: MONTH MUST BE NUMBER] STOP]
  MAKE "DATE BUTFIRST :DATE
  MAKE "YEAR FIRST :DATE
  IF NOT NUMBERP :YEAR
    [PR [ERROR: YEAR MUST BE A NUMBER] STOP]
  MAKE "IDX ZELLER :DAY :MONTH :YEAR
  PR ITEM :IDX + 1 [Saturday Sunday Monday
    Tuesday Wednesday Thursday Friday]
END
```

Figure 2: Logo implementation of Zeller's Congruence.

lenging to understand than the BASIC version.

Logo's origins trace back to Artificial Intelli-

gence research and, due to this, Logo has significant capabilities for handling lists - in a similar manner to Prolog. Zeller's Congruence, above, touches briefly on Logo's list-handling capabilities, but there is so much more to it than that.

If you want to group data together in BASIC, you use an array, but you need to specify the size of the array in advance and ensure every element is the same type and size. In Logo, the array is replaced by the list, which is much more flexible. A Logo list is an ordered sequence of elements which are surrounded by square brackets and can be any combination of numbers, words or other lists. The following are all examples of valid lists in Logo:

You may recognise the third list, Figure 3, from the previous article; as the input to a REPEAT procedure.

The level of flexibility that is present in the Logo list structure was challenging to achieve for language developers in the early days of Logo. Hardware and software restrictions in early implementations meant that lists were stored in a way that in-

```
[ 25 12 2019 ]
[ Three Blind Mice ]
[ SNOWFLAKE.GEN :LENGTH :DEPTH RIGHT
120 ]
[ ZX_SPECTRUM 48 [1982 4 23]]
```

Figure 3

```
?MAKE "A [5 4 3 2 1]
?PR FIRST :A
5
?PR BUTLAST :A
5 4 3 2
?PR ITEM 2 :A
4
?PR MEMBERP 3 :A
TRUE
?PR MEMBERP 8 :A
FALSE
?
```

Figure 4

volved, to get to any particular element, starting at the first element and working forward. So, if you wanted to read the third element of a list, you needed to read the first element, which included a pointer to the second element. Then, you would read the second element, which would point to the third element - that is, the one you wanted. Because of this, built-in procedures focused on separating the first element (the head) from the rest of the elements (the tail). You may be reminded of the way we interrogated the elements of a list in Prolog by unifying to patterns such as (x | Y). Prolog and Logo emerged at a similar stage in the evolution of computer science and had the same approach to handling lists.

There are two built-in procedures, common to all version of Logo, for handling lists; called FIRST and BUTFIRST. FIRST retrieves the first element of a list. BUTFIRST retrieves the tail, which is a new list with the first element removed. For example, given a list '[1 2 3]', applying FIRST would retrieve the element '1'. Whereas applying BUTFIRST would retrieve the list '[2 3]'.

Using these two procedures, and recursion, we could build a toolkit of list-manipulation functions in a similar way to in Prolog. For example, to check if a list contains a particular elements, we could write something like:

```
TO BELONGS_TO :ELEMENT :LIST
  IF :LIST=[] [OUTPUT FALSE]
  IF :ELEMENT=FIRST :LIST [OUTPUT TRUE]
    [OUTPUT BELONGS_TO :ELEMENT BUT-
FIRST :LIST]
END
```

You might want to compare the BELONGS_TO procedure against the Prolog rule 'belongs-to', which we used to solve the "Crossing The River" puzzle in Issue 24.

In fact, Sinclair Logo does not have the same limitations for examining lists that early Logo implementations did. It has a wealth of built-in procedures such as: LAST and BUTLAST, which complement FIRST and BUTFIRST; ELEMENT, which reads a particular element from a list; and MEMBERP, which checks if an element is a member of a list. The use of these is illustrated in Figure 4.
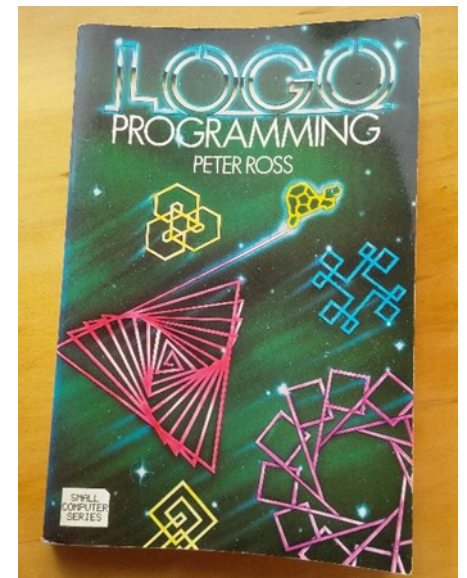
Even though Sinclair Logo has these extra functions, it is worth knowing how to perform list interrogation with just FIRST and BUTFIRST, as it employs techniques you will see often in Logo program listings in books and on the web.

The full extent of Sinclair Logo's list processing capabilities is described in the Programming Reference Manual and it is worthwhile to review this. However, sadly, the Programming Reference Manual is very much a reference and is not well-suited to learning the language. Thankfully there are a number of other sources that can help with this. I learned Logo, to write these articles, using two books: "Introducing Logo" by Boris Allan and "Logo Programming" by Peter Ross. Both books are very good and should be easy to find on auction websites. I have a slight preference for Peter Ross's book, though it was written to teach university students to program, so may be a little academic for some.

The final example we will look at, in this article, shows an interesting and hopefully engaging example of how Logo list processing can be used to create a novel text adventure. The example was written in 1985 and distributed as part of a Commodore 64 port of Terrapin Logo . The author, Don Hopkins, has exploited Logo to the full to make a compact but potentially powerful engine. A key novelty is the use of the Logo command-line as the command parser for the game. This is done by creating procedures for the different instructions and objects that feature in the adventure. Once loaded and initialised, a player can enter Logo commands such as 'EXAMINE SWORD' or 'INVENT' to control their character. The game world is stored in, effectively, three global lists, and Logo procedures are defined to manipulate these lists (along with a couple of necessary variables to hold the topical state).

The main list, called ITEMS, contains a record of every item that can be manipulated in the game, along with a note of its point value and location. The game map is defined in a list called RMOVES, which describes the connectivity between rooms as a list of destinations, for each room, when the player moves north, east, south or west. This is accompanied by a less interesting list of room descriptions, called RNAMES. Armed with these lists and a variable called RNUM that stores the player's current location, it is possible to define procedures - N, E, S, W - to move around the game map, by updating RNUM to the corresponding destination from the current room. So, for example, if the player was in room 2 (RNUM=2), for which the textual description would be held as the second element of the list RNAMES, and moved north, Logo would update RNUM to contain the room number corresponding to the first element of the second list in RMOVES (excepting a value of zero would indicate an invalid direction).

The second novelty is that not only are actions represented by procedures, but objects are as well. Without this addition, the player would need to enter commands such as GET "SWORD to specify a word, which would be less satisfactory. The simplest form of such a procedure would be something like:

```
TO SWORD
  OP "SWORD
END
```

However, Don does more than this, also updating a global variable called 'IT', which can then be referred back to:

```
TO SWORD
  MAKE "IT "SWORD
  OP "SWORD
END
```

With this simple extension, it is possible to have dialogues such as 'GET SCREWDRIVER'; 'EXAMINE IT'; 'DROP IT', which gives the impression of a much slicker interpreter.

MIND YOUR LANGUAGE

Finally, rather than explicitly create procedures for each object, the Logo command DEFINE is used to recursively generate a procedure for each object in the ITEMS list. The code for this is in the procedure INITITEMS and requires relatively complex list manipulation, which we will try to explain here. The key command is:

```
DEFINE LAST FIRST :I
  LPUT LPUT WORD "" LAST FIRST :I [OP
SETIT] [[]]
```

 - in which :I is a list of objects, each defined as [location, score, description] as in ITEMS. The DEFINE procedure takes two arguments: the name of a procedure to be defined; and a list of commands that form the body of the procedure. If we execute the above command with :I defined as an object list with [1 0 SWORD] as the first element, the command will define a new procedure called SWORD, as follows:

```
TO SWORD
  OP SETIT "SWORD
END
```

First, the name of the procedure is extracted from ITEMS, using LAST FIRST :I, which takes the last element SWORD of the first element [1 0 SWORD] of the list :I. The body of the procedure is constructed using two calls to a built-in procedure called LPUT, which appends an element to the end of a list. The inner-most LPUT appends the name of the object (which is prepended by a " symbol using WORD) to a list [OP SETIT]. The outermost LPUT appends the list [OP SETIT "SWORD] to an empty list to make [[OP SETIT "SWORD]].

The command is broken down as follows:

WORD "" LAST FIRST :I	gives	"SWORD
LPUT WORD "" LAST FIRST :I [OP SETIT]	gives	[OP SETIT "SWORD]
LPUT LPUT WORD "" LAST FIRST :I [OP SETIT] [[]]	gives	[[OP SETIT "SWORD]]

If

```
TO ADVENTURE          ; Top-level procedure that is called to set up a new game
  TS              ; Text-screen mode
  PR [WELCOME TO LOGO ADVENTURE]
  PR [WRITTEN BY DON HOPKINS]
  PR []
  INIT              ; Set up game map, objects and initial state
  LOOK              ; Print location description
END

TO INIT   ; Set up game world as three lists for
            ; objects, map and room descriptions
  MAKE "ITEMS [[1 0 SWORD] [2 100 GOLD] [2 100 DIAMOND]
    [3 0 SCREWDRIVER] [4 0 MACHINE] [0 100 WAND]
    [5 200 CROWN]]          ; Item list [location score name]
  MAKE "RMOVES [[0 2 3 0] [0 0 4 1] [1 4 0 0]
    [2 0 0 3] [0 0 0 0]]  ; Game map
  MAKE "RNAMES [[YOU ARE IN A WEAPONS SHOP]
    [THIS IS THE VAULT] [THIS ROOM IS THE
    TOOLSHED] [THIS IS THE ALTAR ROOM]
    [YOU ARE IN A SECRET INCANTATION ROOM]] ; Location descriptions
  MAKE "RNUM 1        ; Player starts in Room 1
  INITITEMS :ITEMS 1 ; Auto-generate procedures for each
                    ; object
END

TO INITITEMS :I :F   ; Create procedure for list of object
  IF :I = [] [STOP]
  IF :F = 1 [DEFINE LAST FIRST :I LPUT ; See notes
    LPUT WORD "" LAST FIRST :I [OP SETIT] [[]]]
    [DEFINE LAST FIRST :I []]
  INITITEMS BF :I :F ; Recursive call
END

TO SETIT :THING ; Update IT to be named object
  MAKE "IT :THING
  OP :THING
END

TO N ; Move north
  MOVEDIR 1
END

TO E ; Move east
  MOVEDIR 2
END

TO S ; Move south
  MOVEDIR 3
END

TO W ; Move west
  MOVEDIR 4
END

TO MOVEDIR :DIR ; Try to move to new location
  MAKE "TRYMOVE ITEM :DIR ITEM :RNUM :RMOVES ; Read map
  IF :TRYMOVE = 0 [PR [YOU CAN'T GO THAT WAY.] CMD] ; End if direction blocked
  PR "OK
  MAKE "RNUM :TRYMOVE      ; Update location
  LOOK                ; … and print location description
END

TO PITEMS :LOC :I        ; Print items at a particular location
  IF :I = [] [STOP]
  IF ( ( FIRST FIRST :I ) = :LOC )
    [TYPE SE ( LAST FIRST :I ) "]
  PITEMS :LOC BF :I
END

TO INVENT        ; Inventory
  PITEMS -1 :ITEMS   ; Item with location set to -1 is being carried
```

that all seems confusing, grab a copy of the Logo Programming Reference, load a copy of Logo into your favourite emulator, and try some experiments.

Don Hopkin's program needs a few changes to run in Sinclair Logo, to address differences between Terrapin's and Sinclair's language implementations. The Sinclair Logo version is listed below, along with some comments (in red) to help you understand what is going on. Sinclair Logo does not support in-line comments, so these should not be removed if you decide to type in the listing.

As well as adjusting the syntax to match that required by Sinclair Logo, it is also necessary to reduce the size of the program a little, as - in its original form - it does not fit into the available memory on the ZX Spectrum. To work around this problem, I have removed a capability to specify 'EVERYTHING' as a special object, which - in the Terrapin version—allows the player to enter commands such as 'DROP EVERYTHING'.

It is a common problem, for all of the languages we have considered in this series, that a significant part of the Spectrum's RAM is used to hold the language interpreter itself, leaving less space for actual programs. With Sinclair Logo loaded, there is around 11kb of memory available for a user's programs and data. With Sinclair BASIC, this does not happen as the interpreter is pre-loaded into the 16kb ROM, leaving much of the 48k of RAM for a user's programs. One way to work around this would have been to put Logo (or any of the other programming languages) onto a ROM cartridge for use with the ZX Interface 2. Sadly the ROM cartridge format did not prove popular on the ZX Spectrum, so this opportunity was missed.

```
  CMD              ; Wait for next command
END

TO SEENO :I          ; Message for no object here
  PR ( SE [I SEE NO] :I "HERE! )
  CMD
END

TO PUTITEM2 :ITEM :LOC :LIST          ; Put item at location
  IF :LIST = [] [OP []]               ; Step through objects recursively
  IF ( LAST FIRST :LIST ) = :ITEM     ; if right object, update location
    [OP FPUT FPUT :LOC BF FIRST :LIST BF :LIST]
  OP FPUT FIRST :LIST PUTITEM2 :ITEM :LOC BF :LIST
END

TO LOOK    ; Print location description and items
  PR ITEM :RNUM :RNAMES
  TYPE SE [YOU CAN SEE] "
  PITEMS :RNUM :ITEMS
  PR "
  CMD
END

TO PUTITEM :ITEM :LOC     ; Wrapper for put items
  MAKE "ITEMS PUTITEM2 :ITEM :LOC :ITEMS
END

TO DROP :ITEM                          ; Drop item
  IF NOT ( ( ITEMLOC :ITEM :ITEMS ) = - 1 )    ; Check player has object
    [PR SE [YOU'RE NOT CARRYING THE] WORD
     :ITEM "! CMD]
  PUTITEM :ITEM :RNUM                   ; Put object at location
  PR SE :ITEM "DROPPED.
  CMD
END

TO FIX :ITEM         ; Spoiler alert – special move for game
  IF ( ( ITEMLOC :ITEM :ITEMS ) = - 1 ) [PR [YOU HAVE TO DROP IT TO FIX IT!]
CMD]
  IF NOT ( :ITEM = "MACHINE ) [PR [YOU CAN'T FIX THAT!] CMD]
  IF ( NOT ( ITEMLOC "WAND :ITEMS ) = 0 ) [PR [THE MACHINE IS NOT BROKEN!] CMD]
  IF ( NOT ( ITEMLOC "SCREWDRIVER :ITEMS ) = - 1 ) [PR [YOU DON'T HAVE THE RIGHT
    TOOLS] CMD]
  PR [YOU FIX THE MACHINE WITH YOUR]
  PR [TRUSTY SCREWDRIVER. UPON BEING]
  PR [FIXED, THE MACHINE STARTS UP]
  PR [AND PRODUCES A WAND!]
  PUTITEM "WAND 4
  CMD
END

TO ITEMLOC :ITEM :I       ; Determine location of object
  IF :I = [] [STOP]       ; If no more objects, we are done
  IF ( LAST FIRST :I ) = :ITEM [OP ( FIRST FIRST :I )]
  OP ITEMLOC :ITEM BF :I  ; Recurse to next object
END

TO WAVE :ITEM        ; Spoiler alert – special move for game
  IF NOT ( ( ITEMLOC :ITEM :ITEMS ) = - 1 ) [PR SE [YOU ARE HOLDING NO] :ITEM
CMD]
  IF NOT :ITEM = "WAND [PR [NOTHING HAPPENS.] CMD]
  IF AND ( NOT :RNUM = 4 ) ( NOT :RNUM = 5 ) [PR [NOTHING HAPPENS] CMD]
  PR [POOF! THE SCENE CHANGES!]
  IF :RNUM = 4 [MAKE "RNUM 5] [MAKE "RNUM 4]
  LOOK
END

TO IT; Procedure so player can type IT instead of "IT
  OP :IT
END
```

MIND YOUR LANGUAGE

```
TO HERE? :ITEM ; Check if object is at player's location
  MAKE "LOC ITEMLOC :ITEM :ITEMS
  OP OR ( :LOC = ( -1 ) ) ( :RNUM = :LOC )
END

TO EXAMINE :ITEM     ; Examine an object (lots of special cases)
  IF NOT ( HERE? :ITEM )
    [PR ( SE [I SEE NO] :ITEM [HERE!] ) CMD] ; Check object available to be examined
  IF :ITEM = "WAND [PR [IT BEARS A FADED INSCRIPTION:] ; Special case
    PR [WAVE ME AND YOU'LL BE GLAD.] CMD]
  IF NOT :ITEM = "MACHINE
    [PR SE [I SEE NOTHING SPECIAL ABOUT THE] :ITEM CMD] ; Default case
  IF NOT ( ( ITEMLOC "WAND :ITEMS ) = 0 ) [PR [IT SEEMS TO BEAR THE MARKS OF] PR [
    A HASTY REPAIR JOB.] CMD]   ; Special case
  PR [IT IS BROKEN! YOU COULD FIX IT] PR [WITH THE RIGHT TOOL.] ; Special case
  CMD
END

TO GET :ITEM    ; Pick up an object
  IF ( ( ITEMLOC :ITEM :ITEMS ) = - 1 )
    [PR SE [YOU ALREADY HAVE] :ITEM CMD]  ; Check not already carried
  IF NOT HERE? :ITEM
    [PR ( SE [I SEE NO] :ITEM "HERE ) CMD]    ; Check is at current location
  PUTITEM :ITEM ( - 1 )              ; Pick up object
  PR SE :ITEM "TAKEN
  CMD
END

TO TAKE :I ; Alternative form of GET
  GET :I
END

TO CMD          ; Exit current procedure heirarchy and prompt for next command
  PR []
  TYPE "COMMAND
  TOPLEVEL ; Exit gracefully from call tree
END

TO SCORE2 :LIST ; Work out score
  IF :LIST = [] [OP 0]
  IF ( NOT ( FIRST FIRST :LIST ) = - 1 )
[OP SCORE2 BF :LIST]              ; Check for items being carried
  OP ( ITEM 2 FIRST :LIST ) + SCORE2 BF :LIST ; Add to score
END

TO SCORE  ; Wrapper for score
  PR ( SE [YOUR SCORE IS] SCORE2 :ITEMS [POINTS.] )
  CMD
END
```
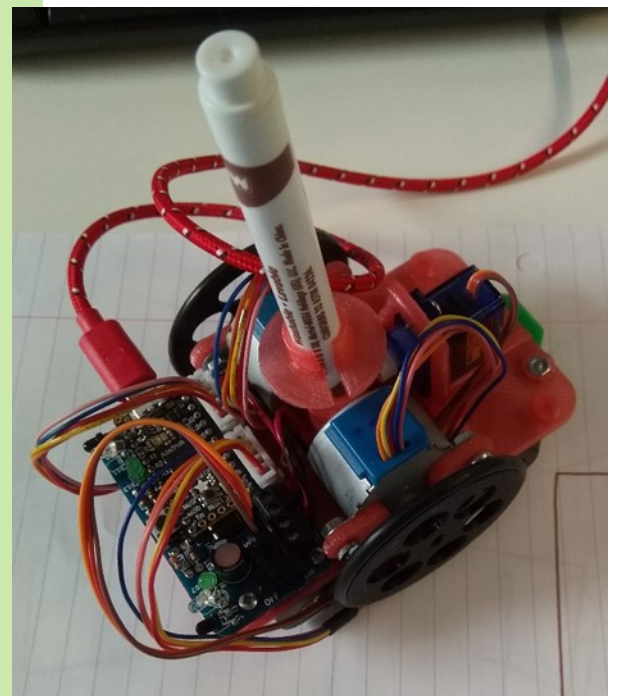
Thanks

My thanks to George for producing a fantastic series of articles that show the different language options open to the Spectrum.

It has been a pleasure reading them and working with him for this magazine.

That brings us to the end of our look at Logo and, in fact, the end of the "Mind Your Language" series. I hope you have enjoyed reading this as much as I have writing it. I also hope the series has inspired you to do something different with the ZX Spectrum, putting aside Jetpac for a little while and dipping into programming. The five languages we have looked at here - BASIC, machine code, FORTH, Prolog, and Logo - are particularly suitable for microcomputers, though they are just a small part of what is available on the ZX Spectrum. HiSoft and (using CP/M) Borland produced excellent versions of Pascal that run on the Spectrum, there are cut-down versions of C, and even a version of Cobol. It does not really matter which language you choose. They all have the potential to open up new applications and opportunities for your humble Spectrum and, thanks to the vibrant retro-computing scene, you can easily and cheaply find resources to help you along the way. For me, Logo is my current favourite, and I have recently acquired a 21st century floor turtle, which I am hoping to interface to my ZX Spectrum. Thirty-five years on, Sinclair Logo may once again be able to create some real turtle graphics!

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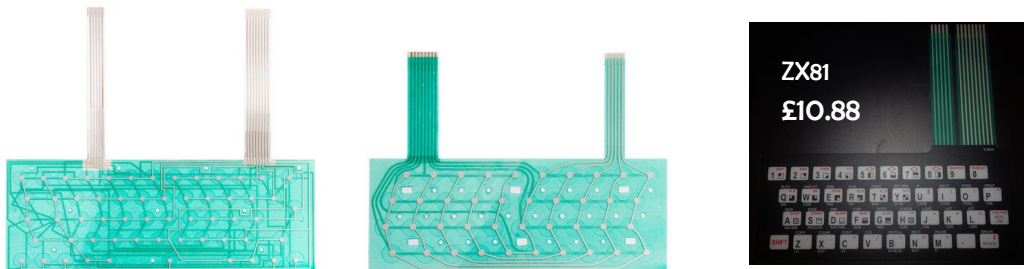
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GRUMPY OGRE'S

Adventure Page

Welcome back to strange places where your mind wanders freely and your brain shifts into a higher gear.

This issue I am moving away from adventure games. Yes, you read that right, and no, I have not drunk too much grog. This issue I will be taking a look at a new discovery for me, and an excellent one at that.

It's not very often magazines feature other magazines. There is usually some sort of rivalry, but to be honest, this is worth writing about.

The magazine in question is The Classic Adventurer ((https://classicadventurer.co.uk/)

It is a beautifully produced magazine with re-drawn artwork, in-depth features and well researched interviews.

The layout is exceptional and the sheer quality is astonishing. You can purchase fully printed copies if you want or download the PDF versions free of charge.

As you can guess, it's all about adventures. There are some really good interviews in here too, and I spent hours reading through the first few issues.

All of the articles and features are illustrated by the original artwork of the games

EXPLORING COLOSSAL CAVES

Somewhere nearby is **Colossal Cave**, where others have found fortunes in treasure and gold, though it is rumoured that some who enter are never seen again. Magic is said to work in the cave. I will be your eyes and hands. Direct me with commands of 1 or 2 words.

Bedquilt Cave Adventure – do you remember that one? No? Well, in a parallel world it may have been the title of the text adventure that started it all. Bedquilt was part of the Mammoth Cave system in Kentucky that gave Willie Crowther the inspiration for the original *Adventure* game. He told Dennis Jerz that "the geometry [of the game] was lifted directly from Bedquilt Cave" not from Colossal Cave.

Crowther had started writing *Adventure* – an interactive textual simulation of a caving expedition in 1975, as he was going through a protracted divorce. He used the development of the game as a way to engage with his children in his spare time. Along the way, the game evolved to include puzzles and mythical creatures, more than likely under the influence of the Dungeons and Dragons games he was playing with a group of friends at the time.

His first effort, 79 locations and 193 words in 700 lines of FORTRAN code and 700 lines of DATA was saved as ADVENT, limited to six characters because of the restrictions placed on file names on the PDP-10 mainframe computer he was using. In fact, though the game is often referred to as *Advent*, there's no doubting its name - the text always began with the message "Welcome to Adventure".

Crowther left for California to further his career in 1977 leaving *Adventure* behind. He had no ambition for the game other than to keep his children occupied and to share it with the computer community. It was rumoured that once he'd overcome the challenge of creating the program he lost interest in it.

Luckily for us, others did maintain an interest and the unpolished code made its way onto an experimental computer network at the US Defence Department's Advance Research Projects Agency (ARPAnet) where it was discovered at Stanford AI Labs by computer science

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that have painstakingly been recreated. The effect is stunning and brings the pages to life.

Issue one includes an interview with John Jones-Steele. The man behind Adventure 1 from Abersoft, one of my favourite adventure games. The article is really interesting, and I was amazed at some of the things that went into that game.

It also mentions other games he had a hand in. Games I didn't even realise he worked on like, Knight Orc, for example.

Each review is concluded by a Desert Island Dungeons section where the interviewee is asked which games they would take with them on a desert island and the usual suspects are always present. Zork, Hitchikers and Planetfall are usually mentioned.

Continuing with the text adventure thread and the magazine then looks back at Colossal Cave, it's making and its influence over every adventure that followed, again illustrated to the highest degree.

If that's not all, and my Ogre's steel heart is already pounding away, we get in interview with Pete, Mike and Nick Auston from Level 9. Level 9 were really the UK's Infocom, and their games were always held in high regard. The interview covers develop-

ment of their games with some interesting insights.

Moving a few pages on and we get an interview with Veronika Megler, one of the people behind The Hobbit. Not the film of course, but the hugely popular and influential graphic adventure from Melbourne

House. More insights and sumptuous artwork on offer and a fabulous read.

We are still in the first issue here and I haven't mentioned Twin Kingdom Valley or Doomsday Lost Echoes, so you can imagine what lies in wait with issues 2,3,4 and 5. There are numerous and interesting features and interviews including Anita Sinclair of Magnetic Scrolls, Fergus McNeill, Tim Gilberts and Scott Adams.

If you like adventures, this is an excellent publication that is very highly recommended. Go grab a copy and lose yourself for a few hours. Brilliant. Just nipping off to read Issue 5.

Back now.. And time waits for no man, or Ogre.

For a recent special feature I had to play every Carnell game released, and it was both insightful and interesting.

I have already mentioned The Black Crystal on these pages, but once I had played the other Carnell games, it became clear that there was a definite identity to them.

The adventures seemed to all fit a fixed template, they all seemed familiar once you had played one. That is not a bad thing and certainly gave you a feeling of familiarity.

Volcanic Dungeon had many game mechanics that were present in The Crypt for example, and this meant players felt at home.

The games themselves were examples of titles that didn't age very well.

They were games of their time, they worked well and intrigued players in 1983. They fitted a niche and appealed to certain players.

Carnell drifted into arcade games instead of sticking to what they knew best, and titles such as Adventures of St. Bernard did them no favours.

They should have continued to build on their success and following. Extended their ideas, improved their mechanics and maintained their already excellent story telling.

It is easy to say these things now, and we have all seen companies come and go. Some deservedly so (hello CRL!) some unfairly (Hi Automata), and some just merged into larger corporate companies only to lose the thing that drew in players in the first place.

Oh dear, I'm rambling again.

Must be the heat and grog.

Go and grab Classic Adventurer now, quaff a beer (or whatever you feel like) and immerse yourself into better times.

See you soon.

GARETH PITCHFORD

Satirical adventure designer and Twilight Inventory author **Gareth Pitchford** wrestled with the intricacies of *The Quill* and *GAC*, before finding a spiritual home for his sense of humour and writing talent with Scott Denyer of Delbert The Hamster Software.

The Hobbit was probably the earliest adventure game I can remember playing. Both my Dad and I were big fans of Tolkien, so it was one of the few full price games that we bought new. The inclusion of a copy of the novel undoubtedly sealed the deal!

To help us complete the game, we picked up a copy of David Elkan's 'A Guide to Playing *The Hobbit'*, which must have been one of the first videogame strategy guides created. It seems there were a lot of people who were very keen to find out how to get out of the Goblin's Dungeon.

When were you given a Spectrum – it seems to be your love?

We had started off with a ZX81, [...] not long after, we picked up a 48K Spectrum from Lewis's, when it was on offer with the 'Six Pack' [of games]. [We] eventually upgraded to a Spectrum +3. My Dad and I clubbed together to buy it through the Grattan catalogue… paying back the money over 100 weeks… with plenty of interest added on, of course. It must have cost a fortune. It was worth it, though. Having a disk-based system was very convenient for writing and playing adventures. By 1992, I'd picked up a Sam Coupé and that became my new 'Spectrum' of choice.

What other mainstream adventures did you play?

Aside from early adventures like *The Hobbit*, *The Lord of the Rings* and *Valhalla*, I didn't really start appreciating and getting into adventure games properly until the latter half of the 1980s. I eventually realised that adventures were something I really liked, and could actually complete, through playing the examples included on the covertapes of magazines such as *Sinclair User*, *Your Sinclair* and *Crash*.

Incentive's *Bat Trilogy*, the *Legend of Apache Gold*, *Winter Wonderland* and *Karyssia – Queen of Diamonds* were all showcased on the Crash covertapes. And on the *Your Sinclair* side of things, *Red Door*, *The Cordelia Incident* and *A Harvesting Moon* gave me my first sample of more indie, homebrewed adventures.

Did these pique an interest in writing games?

I'd always found the adventure columns in the mainstream magazines very interesting, particularly Mike Gerrard's writing in *Your Sinclair*, but

LEVEL 9

Often labelled the British Infocom, **Level 9** were much more than that. Despite the restrictions of British hardware, the Austin brother's adventures were equally compelling, faster, and smarter than their American counterparts'.

At the start of the 1980s, Mike, Pete and Nick Austin were writing arcade games and utilities for the Nascom computer in their spare time and marketing them in the small ads of the emerging home computer press. They called themselves Level 9 Computing.

[Mike Austin] I was a big fan of early computer games – both in arcades and on the first home computers. The top level on a lot of these games was "level 9", and in any case, you can't get any higher without using more digits, so we went with that.

Mike was working for mini-mainframe manufacturer Perkin-Elmer at the time, writing system software for the company. After a year or so, he chanced upon a game stored on their network called *Adventure*. He was a huge fan of Dungeons and Dragons at University (in a time when the game's rules were only available for purchase in a single shop in London) and *Adventure* fired his imagination as he spent most lunchtimes immersing himself in Crowther and Woods' fantasy world.

He was fascinated, but without access to any machine capable of running such a piece of code at home, he decided to write his own version with the help of his brothers. It was a hugely ambitious undertaking, given that the Nascom had a meagre 16K of RAM. Where others had adapted or ported a more minimal version of the game, such as Scott Adam's approach with Adventureland, the Austin's wanted a full version true to the original.

[Mike] We didn't have access to [any of the original] source code at all, and to be honest it wouldn't have been much use anyway because it would have been far too big to run on the computers we were

APRIL 1984 - ISSUE 5

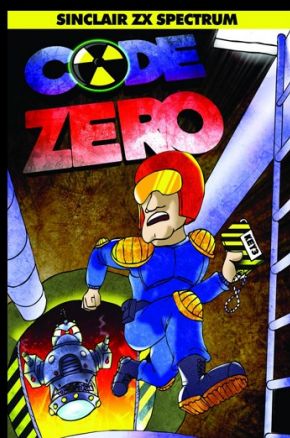This month's issue begins with a game called snake. Following the usual formula, you guide a Snake around the screen, avoiding walls and eating things. As you eat something, the snake gets longer making it more difficult to manoeuvre. Nothing special, just a standard game of Snake.

Next is an animated letter from a reader with some nice border effects and large letters. The writer requests more programs for 48k machines and the inclusion of material for Microdrives. As most programs on the tape have save routines for tape, I presume he is asking for Microdrive save routines as well.

The editorial reveals that Phillip Mitchell, the of Hobbit Fame, has several contributions in this issue including one in Dungeons and Green Men. The text uses a nice font which can be saved for personal use. There is also a useful tip for owners of WH Smith tape recorders!

Now we come to an odd item. A simulation of a binary 8 bit ripple adder. This demonstrates how computers add two numbers together. Not sure of the value of this, but its interesting to see.

Following along comes the third part of the serialised adventure, The Long Way Home. This part is labelled The Pyramid and you can guess where this one takes place.

The graphics are drawn very quickly but the parser is horrendously slow making for a long game even if you know how to complete it. There seems to be a lot of dead-end locations that have no real purpose, but if you like slow adventure games, it may be worth speeding up you emulator.

Side 2

Onto side two and Of Dungeons And Green Men, the adventure section. The whole section is taken over by The Hobbit with some info about the game and it's author and moving on to the hints.

Here we get several hints about certain puzzles in the game to help those stranded adventurers.

Next we have the second game on offer, Tower of Benares. This is a standard Towers of Hanoi game where discs have to be moved between three pillars and discs can only be placed on larger disks.

Now onto the reviews and this issue we get reviews of Melbourne Draw. Using a graphics as an example, this changes to reflect some of the features available and is a good way to review this product on a tape magazine.
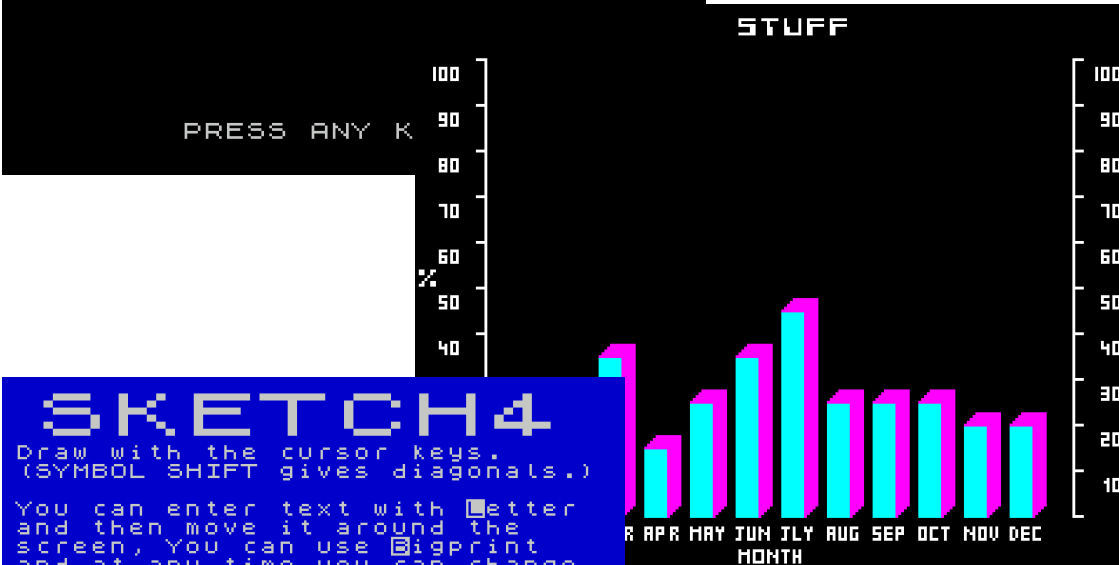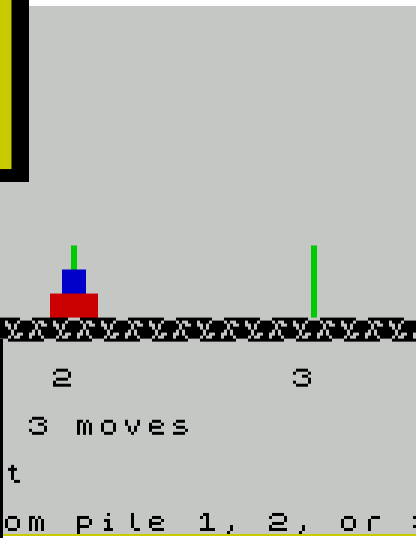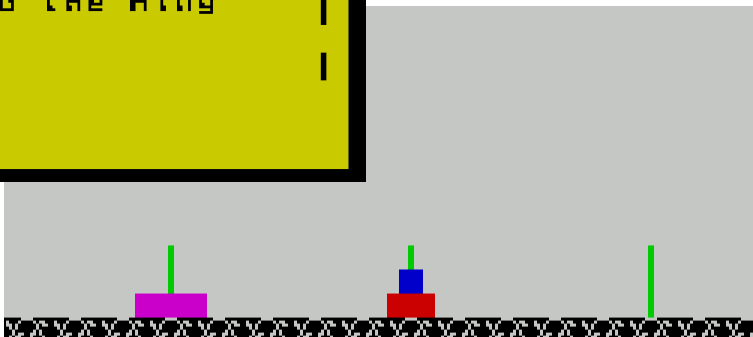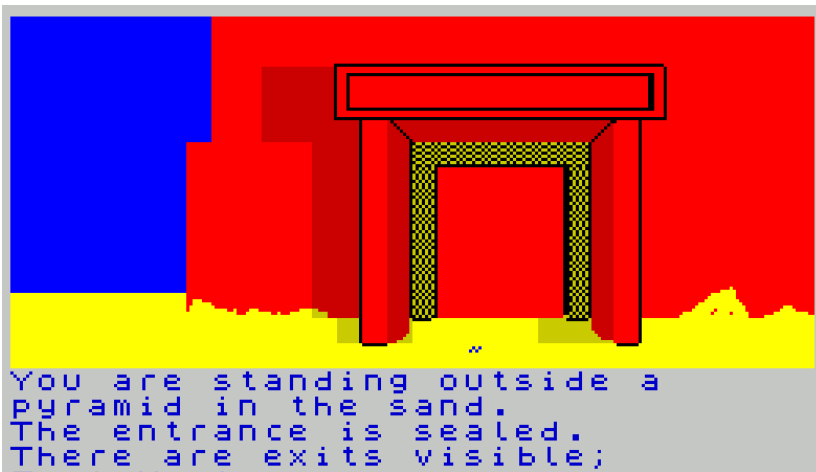
Next we have a bar chart program. OK, stop falling asleep! This program lets you enter values over a 12 month period and have them displayed as a 3D bar chart. You can select the colours to be used as well, so can tailor the ends result to suit your needs.

Next we have a simple drawing program. I am not really sure why they chose to put this on the same tape as their review of Melbourne Draw, but it's here anyway.

You can use the cursor keys to draw, add circles and colour, and add normal or large text. You can draw several screens and flick between them to create animation.

Lastly we get the competition. This issue's task is to draw a Transmat, the device used in The Long Way Home adventures. To date, they have never appeared in the game, so users are asked to come up with ideas.

END OF TAPE

THE SPECTRUM SHOW

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