The ZX Spectrum Book

30th Anniversary Special™

The Commodore 64 Book
30th Anniversary Special™

From the makers of retro GAMER

From the makers of retro GAMER

Classic games • Hardware celebrated • Studios revisited

Classic games • Hardware celebrated • Studios revisited

Welcome to

The
ZX Spectrum
Book ™

30th Anniversary Special

I n many ways the Spectrum was the underdog when placed up against Commodore's C64. It was smaller, had a flimsier build, didn't make a huge impact in the United States, and had a sound chip that could best be described as adequate. And yet the Spectrum remains one of the best-loved home computers of the Eighties.

Rising phoenix-like from the ashes of Sir Clive Sinclair's ZX81, it quickly became a hit with gamers thanks to its many arcade conversions, cute design and a host of incredible games, ranging from Sabre Wulf, to Head Over Heels, Turbo Esprit and Skool Daze. Many of the UK's most important software houses, including Rare and Codemasters cut their teeth on the machine, and it was responsible for the rise of the bedroom coders, some of which feature within this very book.

With the Spectrum now celebrating its 30th year, we've taken this momentous occasion to look back and remember Sir Clive Sinclair's beloved machine. Whether you love Matthew Smith, Ultimate Play The Game, Head Over Heels or Manic Miner, you'll find plenty to enjoy inside this book.

In association with **retro GAMER** magazine

The ZX Spectrum Book

Book™

30th Anniversary Special

The ZX Spectrum Book
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Year Released: 1982

Original Price: £125 (£175 48k)

Buy it now for: £10+

Associated Magazines: Crash, Your Sinclair, Sinclair User, Sinclair Programs, Sinclair Answers, ZX Computing

Why the Spectrum was great... Owning a Spectrum was like being part of a secret club. Like-minded gamers who knew what it meant to type out hundred line pokes, wait ten minutes for *The Hobbit* to load, and had mastered the art of tape-to-tape copying.
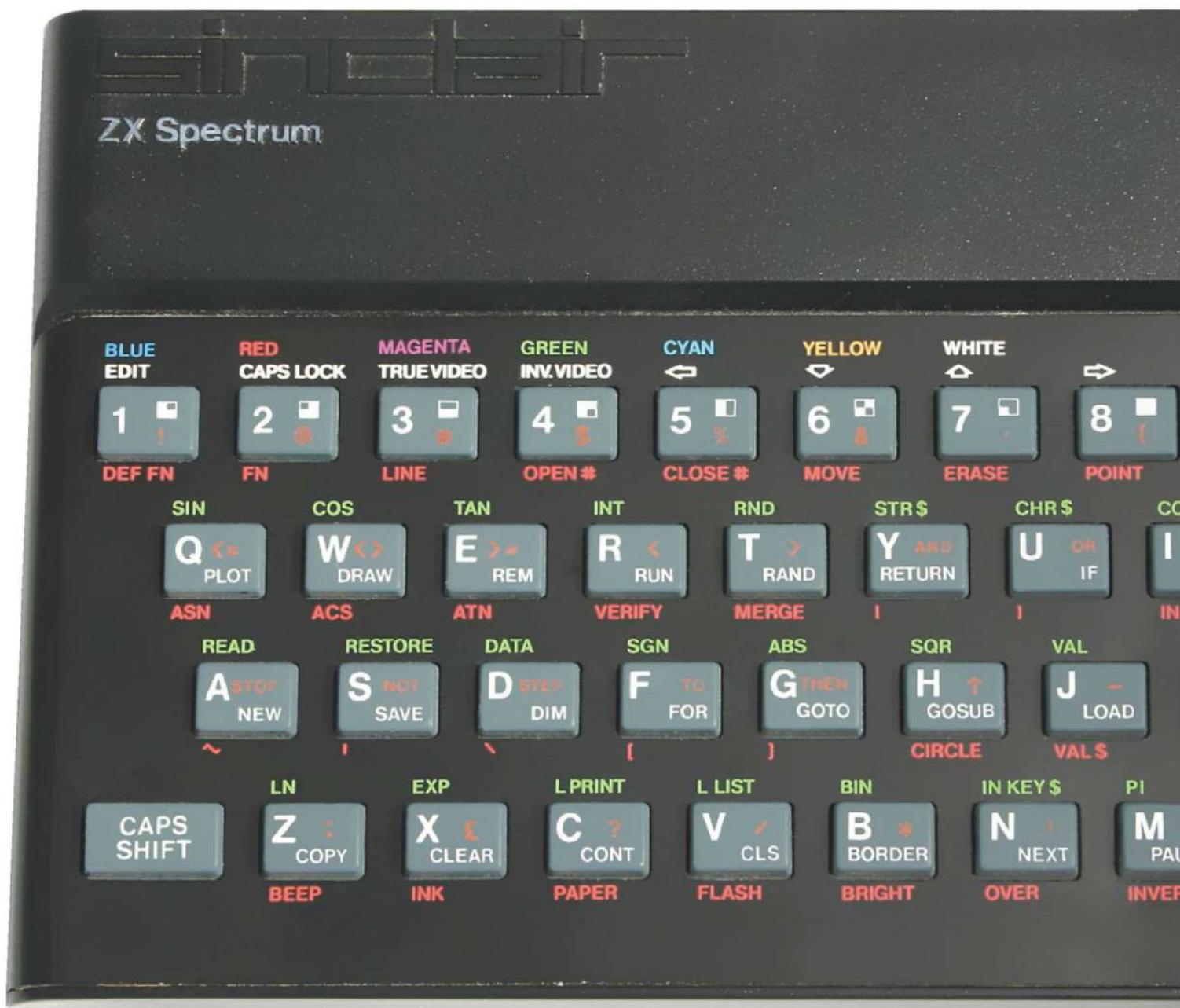
sinclair
ZX Spectrum

THE HUMBLE SINCLAIR ZX SPECTRUM WAS SMALL AND UNASSUMING, YET IT MANAGED TO CONQUER THE UK COMPUTER MARKET DURING THE EIGHTIES AND WAS COMMERCIALLY VIABLE FOR OVER A DECADE. DURING THIS TIME THE MACHINE WON THE HEARTS OF MILLIONS AND A THRIVING FAN SCENE NOW EXISTS. AS IT CELEBRATES ITS 30TH BIRTHDAY, MARTYN CARROLL REVEALS HOW THE 8-BIT COMPUTER OVERCAME ALL THE ODDS

Having made a name for himself in the electronics field, releasing everything from pocket calculators to tiny televisions, Sir Clive Sinclair turned his entrepreneurial gaze toward computers, and in 1978 he launched the MK14. It was sold in kit form and proved to be little more than a programmable calculator, but sales of over 50,000 convinced Sir Clive that there was a hunger for computers aimed at hobbyists.

In early 1980 Sinclair released the ZX80, a diminutive home computer with a touch-sensitive membrane keyboard and just 1K of memory. It too was sold in kit form for £79, but crucially a pre-built version was available for £99, opening up the world of computers to more general home users who weren't prepared to whip out a soldering iron and start bolting bits together. However, it was the ZX80's successor, the enhanced and improved ZX81 that really kick-started the home computing craze in the UK. Released in March 1981 and available for either £49 (kit form) or £69 (pre-built), the ZX81 clocked up sales of more than 400,000 in a little over 12 months. Sinclair had devised the ultimate entry-level computer and the British public were buying into it.

But Sir Clive wasn't about to stand idly by, counting the cheques and postal orders that were pouring into his hectic mail order department. The industry he'd had a hand in creating was moving fast, very fast, and competitors were queuing up for a piece of the pie. To compound matters, the cost of components and memory was tumbling all the time, allowing more manufacturers to tap into the low-cost computer market that belonged almost exclusively to Sinclair. Plus, there was the small matter of Acorn beating Sinclair to a lucrative BBC contract that would ultimately see Acorn computers installed in classrooms up and down the country. It was time for Sir Clive to dig in and fight his corner.

To this end, Sinclair began to mastermind the ZX82 and ZX83 models. The former would supersede the ZX81, adding sound

Tech specs

A trusty Zilog Z80A chip running at 3.54MHz powered the Spectrum. The machine was available with either 16K or 48K of RAM, and Sinclair BASIC was provided on a 16K ROM chip. The video display could output 24 lines of text with 32 character positions, and 192x256 pixels for high-resolution graphics. The Spectrum had very few external connectors. There was TV out, ear and mic ports to connect a tape recorder, and a 28-pin expansion slot for connecting a wide range of peripherals, including joystick interfaces, printers and Sinclair's own Microdrive storage system.

Sinclair's Richard Altwasser, who had previously helped develop the ZX81, designed the Spectrum's hardware. The ROM code was written almost entirely by Steve Vickers of Nine Tiles Information Handling Ltd (a small portion was adapted from the original ZX80 ROM code written by John Grant), while Sinclair designer Rick Dickinson created the casing and infamous 'dead flesh' keyboard.

» The men behind the Spectrum, Steve Vickers (left) of Nine Tiles and Richard Altwasser of Sinclair Research.

sinclair
ZX Spectrum
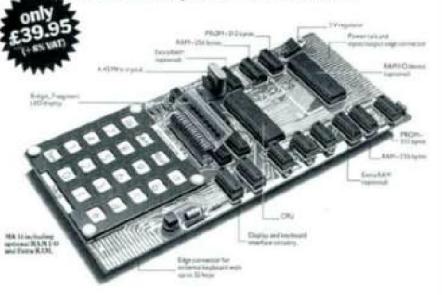
» The MK14 was Sir Clive's first home computer and today is now highly sought after by Sinclair collectors.

» The Spectrum was a fairly simple machine with no dedicated graphics hardware and limited expansion options (photo: Bill Bertram).
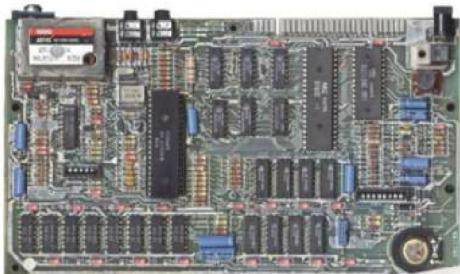
» The first Spectrum print ad sang the Spectrum's praises, so far as to even include a glowing quote from Sir Clive himself.

» Released in April 1982, the Spectrum went on to become the UK's best selling home computer.

capabilities, colour graphics and a moving keyboard to the mix, while the latter was hoped to seize control of the small business market.

The eventual fortunes of the two machines couldn't be more different. The ZX82 was renamed the ZX Spectrum and went on to become Britain's best selling home computer. The ZX83, meanwhile, was launched as the Sinclair QL (Quantum Leap) in 1984 and failed to make an impression as a business machine. The QL is now regarded as an embarrassing footnote in the Sinclair story, second only to the disastrous C5 motorised tricycle (although to be honest, the C5 is probably more of an epitaph than a footnote).

RAINBOW BRIGHT

In April 1982, long before the QL and C5 tarnished Sir Clive's name, the Spectrum was launched in a blaze of publicity at the Earls Court Computer Show. Shortly after its unveiling, an advert for the new computer began to appear in specialist computer magazines. It was typically text-heavy and very Sinclair, hammering home each of the machine's 'astonishing' new features. Topping the list of key features was the Spectrum's high-resolution colour graphic capabilities. Whereas the ZX80/81 were monochrome machines, the Spectrum lived up to its name by outputting seven colours plus black. Sound support was also included, with the new BEEP command allowing you to control pitch and duration. The advert went on to reveal details of a full-size moving keyboard that would replace the plastic membrane used on the ZX80/81. To seal the deal, the Spectrum came with a very generous amount of RAM – 16K as standard, with an expanded 48K version also available.

But what about the price? Would Sir Clive be able to continue his noble aim of delivering affordable computers to the masses? The answer was a resounding yes. The 16K model was available for just £125, and for £50 more you could take home the 48K version. Compare that to the Commodore 64, which launched in the UK at £299. Or even better, the BBC Model B, which would lighten your pockets to the tune of £399. Sinclair had soundly undercut the competition and looked to have sewn up the market once again.

The advert posed a problem however. The Spectrum simply sounded too good to be true. All those features for such a competitive price. There had to be a catch. But before anyone could see the machine and make up their own minds, they had to suffer Sinclair's famously unreliable mail order department. Customers were advised to allow up to 28 days for delivery, and yet those who'd placed their orders early typically had to wait between 12 and 16 weeks for their shiny new machines to arrive. During the latter half of 1982 Sinclair was reportedly manufacturing 20,000 Spectrums a month and yet was still unable to meet the huge demand. It didn't help that a quantity of machines were earmarked for overseas markets following a steady European roll out. Things did ease somewhat by early 1983, mainly because the Spectrum was made available though WHSmiths and other high street chains.

» Great games that made a splash on the Speccy. From left to right: *Manic Miner*, *Ant Attack*, *Lords of Midnight* and *Head over Heels*.

RUBBER SOUL

The advert flagged the Spectrum as a "powerful professional's computer", but in several respects the new computer was very similar to its more primitive forebears. It's believed that this was intentional on Sir Clive's part as a means of speeding up production and keeping costs down.

At first glance it was obvious that Sinclair had performed another miracle of miniaturisation. The Spectrum was just 23cm wide, 14cm long and 3cm deep. The most noticeable new addition were the small rubber keys that poked through the sleek black casing. A single sheet of spongy rubber was used and by pressing down on a key, the contact underneath was closed and then the key sprung back to its original position. It was preferable to the ZX81's touch-sensitive keyboard, and probably just as cost effective, but to call it a 'full-size, moving-key keyboard' was a little optimistic.

The actual keyboard layout was almost identical to the one that debuted on the ZX80. There were 40 keys in total, compared to an average of 60-70 keys found on computers with proper typewriter-style keyboards. The updated Sinclair BASIC retained its one-touch keyword entry system, where a typical key could be used to enter five different commands depending on which shift keys it was pressed in conjunction with. This input method baffled beginners and proved far too restrictive for more seasoned users. To complicate matters, a number of new BASIC commands were introduced, taking the total number of keyboard functions to a finger-bending 193. In some cases it would be quicker to manually type the command than press the required series of keys. Again, the advert was slightly wide of the mark with its "one-touch" keyword entry claims.

What about the new colour capabilities? Well, Sinclair actually undersold the Spectrum in this respect. There were eight basic colours, yet the BRIGHT command could be applied to every colour except black, making 15 in total. Coupled with the surprisingly high screen resolution (256 x 192 pixels), the Spectrum's display capabilities could rival machines retailing at twice the price. There was a drawback however. To save memory, each 8 x 8 pixel square could only display a foreground and background colour. As a result, in games where a character sprite of one colour passed over a background of a different colour, the colour of the sprite would bleed into the background. This so-called colour clash effect was unique to the Spectrum, much to the amusement of Commodore 64 and Amstrad CPC owners. We can now look back and say that colour clash gave Speccy games a certain charm, but back in the day such wistful reasoning would never have settled those playground spats.

Rather than blast sound through your TV set, the Spectrum featured a small internal speaker. It was affectionately known as the 'beeper', because it, well, beeped, and that was about it. You could control the length and tone of the beep but not the volume, which was a shame because the speaker was barely audible in the first

batch of models off the production line (later versions corrected this problem to some extent). Worse still, the speaker would temporarily freeze the processor while it played a sound. Considering what they had to work with, it's amazing that programmers managed to add sound effects and music to games at all. Even more remarkable is that musicians like Martin Galway and Tim Follin developed routines that simulated multiple sound channels. It was also possible to play sampled speech through the speaker, albeit in very crude fashion.

PLAY THE GAME

Despite these technical shortcomings, the Spectrum quickly generated a huge range of independent software. Games were incredibly popular and unofficial versions of arcade classics such as *Space Invaders*, *Pac-Man* and *Breakout* quickly flooded the market. Software houses that had sprung up to support the ZX81 were drawn to the new machine, attracted by its colour graphics, relatively huge memory (the 48K version at least), and rapidly growing user base.

Bug-Byte, Mikro-Gen, Quicksilva, Imagine, Ocean and dozens of other developers made a name (and a small fortune) for themselves during these early years, but one company in particular stood out from the crowd. Ashby Computer and Graphics Ltd, then operating under the trade name Ultimate Play the Game, now known as Rare, set the whole scene alight with a series of stunning Spectrum games. Its first four releases (*Jetpac*, *Pssst*, *Cookie* and *Tranz Am*) became best selling classics that other developers could only dream of, and yet they all ran on a standard 16K Spectrum. Ultimate's 48K games were bigger and better, with titles like *Atic Atac*, *Sabre Wulf* and *Knight Lore* whipping the computer press into a dribbling frenzy. Other ground-breaking games that debuted on the Spectrum before being ported to different machines included Matthew Smith's *Manic Miner*, Sandy White's *Ant Attack*, Mike Singleton's *Lords of Midnight* and Jon Ritman's *Head over Heels*, amongst many others. The Spectrum really was home to an embarrassing number of great games.

It was this catalogue of games, as wide as it was deep, that pushed sales of the Spectrum through the roof. In the run up to Christmas 1983, over 50,000 machines were sold every month in the UK. As the cost of components fell, Sinclair fuelled demand further by slashing the price of the Spectrum. The 16K model was reduced to just £99, nestling just under the psychological price barrier of £100, and the 48K version retailed at a very attractive £129.

This was the Spectrum's golden period, but sadly it didn't last much beyond 1984. In October of that year Sinclair released the Spectrum+, which rather than a souped-up Speccy that buyers and retailers hoped for, merely added a moving QL-style keyboard. Similarly, the long-awaited Spectrum 128, which received a low-key UK launch in February 1986, was essentially a Spectrum+ with 128K memory, a new three channel sound chip and an updated version of Sinclair BASIC. These updates were cautious, lazy even, perhaps because by this time Sinclair's focus (and finances) had shifted almost exclusively to the doomed C5 project. In summer 1986 Amstrad acquired Sinclair's computing arm and went on to create Spectrum-based clones of its popular CPC range. Amstrad's +2 and +3 models were marketed as games machines and certainly attracted new buyers, but those who'd fallen in love with the ZX line would sadly never see a true successor to the Spectrum. Perhaps if Sinclair had continued to attack the competition as aggressively as it had done during the early Eighties then a 16-bit computer capable of undercutting the Commodore Amiga and Atari ST might have been a distinct possibility. Nevertheless, a place in computing history is unreservedly set-aside for the not-so-humble Sinclair Spectrum.
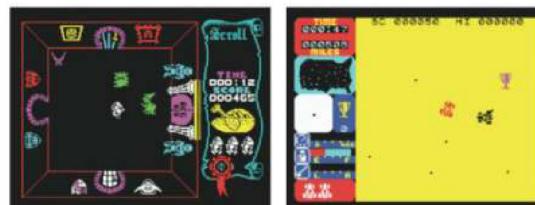
» Sinclair Research boss Sir Clive Sinclair, pictured here at the QL launch in January 1984.
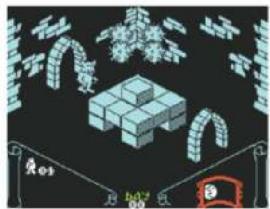
The wonderful World of Spectrum

Speccy fans are fortunate in that one of the Web's best retro sites is dedicated to the machine. World of Spectrum (www.worldofspectrum. org) contains information on more than 12,500 games, with screenshots, links to reviews, and in the vast majority of cases, downloadable ROMs that can be played on modern platforms via emulation. Don't let the presence of ROMs deter you though – webmaster Martijn van der Heide actively seeks permission from publishers to offer the games freely on the site, and will remove games if requested by an IP owner.

World of Spectrum celebrated its 10th birthday at the end of the November, and we asked Martijn if he was planning to celebrate the anniversary. "Well I've added a smallish new section to the site, covering the Timex versions of the Spectrum," he replied in typically modest fashion. But what about the long-term future of WoS? "It will take several more years to update the databases so I hope to provide a more complete history over time. Other than that we are aiming to provide many more screenshots. And when more people have broadband Internet we'll shift to a more glossy, interactive environment." Sounds good, Martijn. Here's to the next 10 years…

World of Spectrum is not just the best Speccy site on the Web, but arguably the best retro resource full stop.

PERFECT TEN GAMES

STARQUAKE

STARQUAKE

HEAD OVER HEELS

ATIC ATAC

STARQUAKE

» **RELEASED:** 1985
» **PUBLISHED BY:** BUBBLEBUS SOFTWARE
» **CREATED BY:** STEVE CROW
» **BY THE SAME AUTHOR:** FIRELORD, WIZARD'S LAIR

Steve's Crow unbelievably addictive flick-screen platformer mixes pure playability with crisp sci-fi graphics and frantic puzzle solving. It's one of those games where every aspect has been polished to gleaming perfection; whether it's the mini-Mastercards that make light work of navigating the immense caverns. But it's the sheer speed of the thing that makes *Starquake* such an exhilarating experience on the Spectrum. Crow's devious mazes require serious cunning to traverse, and it's all kept at a feverish pace thanks to a constant supply of energy-sapping enemies. A must for every Spectrum aficionado, *Starquake* is pure 48k bliss.

ANT ATTACK

» **RELEASED:** 1983
» **PUBLISHED BY:** QUICKSILVA
» **CREATED BY:** SANDY WHITE
» **BY THE SAME AUTHOR:** I OF THE MASK, ZOMBIE ZOMBIE

Few games in the early Eighties were as atmospheric and downright terrifying as *Ant Attack*, the first real home video game to be viewed from an isometric perspective. The ghostly monotone graphics only served to intensify the desolation of the abandoned walled city of Antescher, and made the sudden appearance of the titular arthropods even more shocking. Typical games are spent tear-arsing around the tomb-like structures desperately following the green or red signals from your scanner to locate each lost soul. Sudden ant attacks are agile and persistent and require a dash to high ground or a well-aimed grenade to avoid. One of the few games to actually allow you to choose your sex, *Ant Attack* is still a prime example of a simple concept well implemented and burnt into the minds of a generation of gamers.
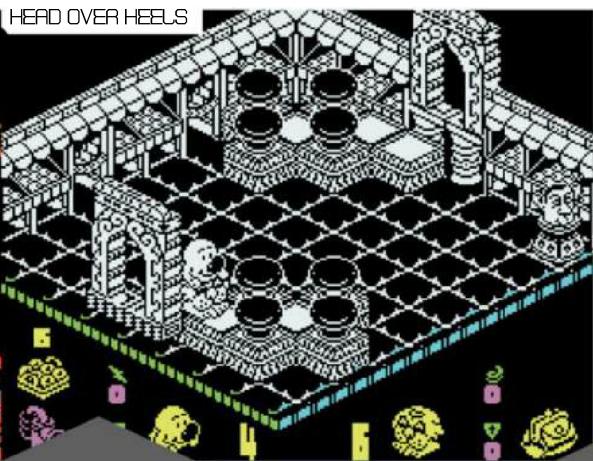
HEAD OVER HEELS

» **RELEASED:** 1987
» **PUBLISHED BY:** OCEAN SOFTWARE
» **CREATED BY:** JON RITMAN, BERNIE DRUMMOND
» **BY THE SAME AUTHOR:** NAMTIR RAIDERS, BATMAN, MATCHDAY I & II, MONSTER MAX

Pre 1987 Ritman and Drummond had toyed with the likes of the similarly isometric *Batman*. But it was with *Head Over Heels* that the duo truly achieved greatness. It's difficult to describe now the impact this game had when it was released; surpassing every other 3-D platformer in an instant with its relentless assault of clever ideas, kitsch graphics and surefooted game design. Ritman is a master of Rubik's Cube-style puzzles and nearly every room requires lateral thinking and more than a dash of fingertip dexterity. Dividing the *Head and Heels* character's abilities, so that they can only progress so far as separate entities and must literally join forces to complete the game, is a masterstroke, and typical of the ingenuity that seeps from the game's every pore.

THE GREAT ESCAPE

» **RELEASED:** 1986
» **PUBLISHED BY:** OCEAN SOFTWARE
» **CREATED BY:** DENTON DESIGNS
» **BY THE SAME AUTHOR:** ENIGMA FORCE, SHADOWFIRE, WHERE TIME STOOD STILL, COSMIC WARTOAD

In the year of the space shuttle Challenger disaster, Spectrum owners were treated to one of the finest isometric adventures ever to appear on Sir Clive's rubber marvel. *The Great Escape* is set in a Colditz-style POW camp during WWII, and the objective is to escape before your morale is crushed, and without alerting the guards and getting thrown into the cooler. What makes the game so compelling is the attention to detail and a real sense of confinement. The graphics are finely crafted, and clever little touches like the morale flag, the searchlights at night, the hidden tunnels, and the way you default to the camp routine if you stop playing, make the game a true classic. Just look at it.

ATIC ATAC

» **RELEASED:** 1983
» **PUBLISHED BY:** ULTIMATE
» **CREATED BY:** TIM STAMPER, CHRIS STAMPER
» **BY THE SAME AUTHOR:** LUNAR JETMAN, SABRE WULF, ALIEN 8, GUNFRIGHT, KNIGHTLORE

No 'perfect ten' list for the Spectrum would be complete without a solid showing from the Stamper brothers and their superb Ultimate label. *Atic Atac* makes it into the list by a narrow margin (so many Ultimate games are outright classics) because it set the scene for Ultimate to dominate the Spectrum. Playing as Knight, Wizard or Serf, *Atic Atac* is an overhead perspective arcade adventure set over 200+ rooms in a gothic castle populated by endless minions, as well as Frankenstein, Quasimodo, the Mummy and of course Dracula. It's fast, it's challenging, and even today it provides hours of entertainment.

ANT ATTACK

THE GREAT ESCAPE

QUAZATRON

sinclair
ZX Spectrum

A magnificent machine like the Speccy deserves a well thought-out and balanced appreciation of the ten best games, especially when there are so many genuinely superb titles that could be covered. The following list wasn't easy to put together, but we guarantee that it includes some of the best games to be found on the system.

PERFECT 10

BACK TO SKOOL

REBEL STAR

QUAZATRON

» **RELEASED:** 1986
» **PUBLISHED BY:** HEWSON CONSULTANTS
» **CREATED BY:** STEVE TURNER
» **BY THE SAME AUTHOR:** SPACE WARS 3D, AVALON, DRAGONTORC, RANA RAMA, ZYNAPS

We're going out on a bit of a limb here, because Steve Turner's *Quazatron* is not generally considered one of the top ten Spectrum games, but hey, it's our list, right?
So what if it stole C64 *Paradroid's* innovative 'grappling' system, and the lifts to other levels are kinda similar, *Quazatron* carves a niche for itself, and you can't deny the clever use of colour, the detail on the droids, and the *Marble Madness*-inspired gameplay. Where *Quazatron* scores highly is the player's desire to battle and strip the best parts from your fellow robots, boost their own abilities, and then wipe each level clean before descending to the next. A simply magnificent game

BACK TO SKOOL

» **RELEASED:** 1985
» **PUBLISHED BY:** MICROSPHERE
» **CREATED BY:** DAVID REEDY
» **BY THE SAME AUTHOR:** SKOOL DAZE, WHEELIE, CONTACT SAM CRUISE

Together with the original *Skool Daze*, *Back to Skool* represents bedroom programming at its best – quintessentially British, packed with detail, and eminently playable, how could this game fail to appeal to its audience of rowdy teenagers? Allowing the player to individually name the cast of characters was Reedy's masterstroke because it meant your could personalise and relate to them instantly. What makes *Back to Skool* such a great Spectrum game though is the way it plays and the St Trinians-esque details, like riding the bike through the school, shooting water pistols, releasing the mouse to make the girls jump, and of course avoiding the cane of the sinister Mr Whacker. Fond, fond memories…

JET SET WILLY

» **RELEASED:** 1984
» **PUBLISHED BY:** SOFTWARE PROJECTS
» **CREATED BY:** MATTHEW SMITH
» **BY THE SAME AUTHOR:** MANIC MINER

The follow-up to *Manic Miner* is set in a sprawling mansion (bought with the profits from mining no doubt) and is both exciting and infuriating in equal measures. Gaming legend Matthew Smith showers you with extra lives to help you collect the 83 flashing objects – and you need them, as the difficulty level in rooms like the Banyan Tree, Out on a Limb, and the Forgotten Abbey is utterly insane! Smith's Python-inspired characters and unforgiving gameplay has sealed *JSW's* place in Spectrum history and spawned a hundreds clones, the best of which is probably Elite's *Rollercoaster*.

REBEL STAR

» **RELEASED:** 1986
» **PUBLISHED BY:** FIREBIRD
» **CREATED BY:** JULIAN GOLLOP
» **BY THE SAME AUTHOR:** CHAOS, LASER SQUAD, REBEL STAR 2, REBEL STAR RAIDERS

Just pipping Gollop's earlier masterpiece, *Chaos*, into our top ten, *Rebel Star* is a turn-based sci-fi strategy game in which you control either of two opposing forces in a moonbase battle (there was also a two player game on the flip-side of the tape and all for £1.99!). What seals *Rebel Star's* greatness is the pure strategy and cunning that must be employed to succeed; making the best of your forces' abilities and different armaments. Julian Gollop, where are you now?

ELITE

» **RELEASED:** 1985
» **PUBLISHED BY:** FIREBIRD
» **CREATED BY:** TORUS
» **BY THE SAME AUTHOR:** GYRON

No top ten could be complete without the obligatory conversion of the ultimate space trading game, and this Torus version remains faithful to Bell and Braben's original vision whilst at the same time adding some enhancements. That's if you could actually play the damn thing however, because *Elite* was the first ever game to utilise the Lenslock anti-piracy thingy, which managed to frustrate legitimate customers and pirates in almost equal measures. Fortunately *Elite* was worth it, with ultra-smooth and flicker-free frame rate, impressive magenta explosions, and for the 128k at least, three special missions.

JET SET WILLY

ELITE

sinclair
ZX Spectrum *and the rest...*

With over twelve thousand Spectrum games in existence, its importance as the genesis of modern videogaming cannot be overstated, and many of today's most successful developers cut their teeth on Sir Clive's finest.

THE LORDS OF MIDNIGHT

ONE RING TO RULE THEM ALL... NO, WAIT

» **PUBLISHER** BEYOND SOFTWARE
» **RELEASED:** 1984
» **GENRE:** ADVENTURE
» **FEATURED HARDWARE:** ZX SPECTRUM
» **EXPECT TO PAY:** A FEW QUID

HISTORY

If you were a kid in the Eighties, and a videogame fanatic who also happened to be obsessed with Tolkien – with a possible hankering to 'be' Frodo – you were likely to have been disappointed with officially licensed fare. The hotly anticipated Parker Brothers Lord Of The Rings Atari 2600 game never materialised, and Melbourne House's 1985 follow-up to The Hobbit – a dull text adventure – was a turgid, dull, somewhat incoherent text adventure. These negative experiences must have so damaged videogaming's collective psyche that it was 1988 before a subsequent game set in Tolkien's universe was attempted: the slightly overambitious but nonetheless impressive and engrossing War In Middle-earth.

That the last of those games was actually pretty good might have something to do with the involvement of Mike Singleton, who'd a few years earlier created his very own 'Middle-earth' of sorts. In an unashamed 'tribute' to Tolkien, Singleton fashioned the astonishingly ahead-of-its-time strategy/adventure title The Lords Of Midnight. Despite it being released for the ZX Spectrum and converted to the equally underpowered C64 and Amstrad CPC, The Lords Of Midnight stands the test of time today, and, amazingly, still has people arguing about the best strategies to defeat Doomdark, the suitably named bad guy, who isn't at all a thinly disguised Sauron.

Ultimately, though, the names and the overly familiar fantasy territory don't really matter; they never did. To a child's eyes, The Lords Of Midnight was like being dumped at the edge of Middle-earth. With the breathtaking landscape system, you were afforded freedom within a huge map that meant the game felt far more like an epic fantasy quest than Melbourne House's limited text adventure. Today, the sense of wonder remains on reacquainting yourself with Luxor and pals, although this feeling is naturally mixed with admiration for Singleton's technical genius and a touch of sadness that the originally conceived trilogy was never completed on 8-bit hardware. Still, Lords and its magnificent sequel, Doomdark's Revenge, ensure that there's enough Midnight for any retro gamer.

HE WISE

on the Downs
Looking
e Tower of

THE MAKING OF…
HEAD OVER HEELS

The Spectrum had a massive number of excellent isometric adventures in its library, but few were as inventive, imaginative, and downright crazy as Head Over Heels. Jon Ritman reveals the method behind the madness of his surreal Spectrum masterpiece
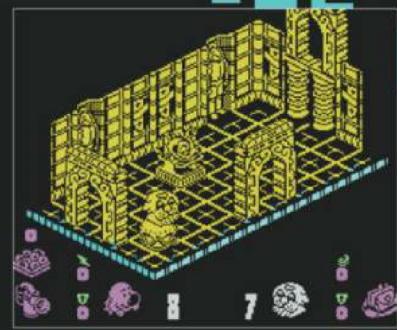
» There's something really fishy about this game! Heh heh heh! (I'm here all week…)
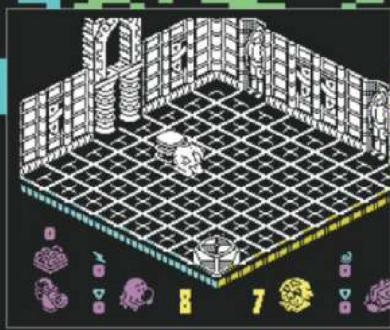
» Heels is pretty rubbish when it comes to jumping. Fortunately handy items like this put a spring in his step.
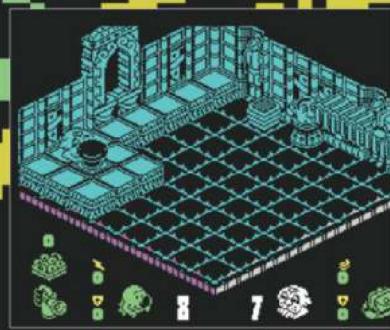
» "Getting that bit-part in *Doctor Who* was a mistake," mused Prince Charles, as Heels controlled him via a giant joystick.

SO NEAR AND YET SO FAR

The symbiotic partnership enjoyed by Head and Heels is central to the game, and you won't progress far without managing to get the pair together. As if the potential for a major power-up wasn't enough to enthuse players (when Head and Heels are joined, the pair enjoy both the speed of Heels and Head's jumping power), Jon added further elements to urge players onwards. If Head wanders through the door from his start point, he'll see Heels in the adjoining cell, separated from him by an impassable barrier. And shortly afterwards, the pair cross paths, Heels in a tunnel and Head on top of it. "The tunnel was inspired by a section in Ultimate's *Alien 8*, where you come out on a balcony, able to see a room that you can't get down to," explains Jon, adding that he "liked the 'tease' element to it," and therefore used the same device to torment players in his own game!

» Many levels in *Head Over Heels* are filled with deadly enemies, meaning you must move with caution.

» There were all sorts of weird and surreal objects and items in *Head Over Heels*. Want to jump over toasters, or fire a donut gun? No problem.

Delve into videogaming history and you'll be met with a plethora of strange-looking characters, along with a healthy population of anthropomorphic animals, out to right wrongs or to steal Sinclair C5s. The characters in Jon Ritman's timeless classic *Head Over Heels* are a rather unsettling combination of the two (Head is big-nosed noggin that has spindly arms with bat-like wings attached, and Heels resembles a dog, minus two feet, a tail and a torso), and yet their unique look fits in with their utterly surreal surroundings. And when combined with the game's then-epic scale and plentiful (and often infuriating) puzzles, *Head Over Heels* was ensured a permanent position in the top-list of any aficionado of 8-bit gaming.

For the uninitiated, *Head Over Heels* is an isometric arcade adventure, where the player guides the stars of the show – who both happen to be spies – around various locations, solving puzzles. The game's surreal plot (which can be sourced at World of Spectrum – www.worldofspectrum.org – and which Jon admits was "bullshit I wrote on the last day" to tie together the game's disparate elements and help the user make sense of the eclectic array of characters and imagery) centres on the evil Blacktooth Empire and a quartet of enslaved planets. The game begins with Head and Heels banged up in adjoining cells, with two aims in mind: 'liberating' crowns from the clutches of the evil Blacktooth Empire, and escaping to Freedom, their home planet. Luckily, Blacktooth prisons appear to be progressive, and teleporters are found near the two creatures' starting locations, so they can begin their quest.

When *Head Over Heels* was released, back in 1987, almost every publication from Sinclair User to Zzap!64 was full of praise. But *Head Over Heels* always felt more at home on the Spectrum and Amstrad – the C64 was lumbered, by

IN THE KNOW

» **PUBLISHER:** OCEAN SOFTWARE

» **DEVELOPER:** JON RITMAN (WITH BERNIE DRUMMOND)

» **RELEASED:** 1987

» **GENRE:** ARCADE ADVENTURE

» **EXPECT TO PAY:** A FEW QUID

"BATMAN AND HEAD OVER HEELS WERE BASICALLY UNPLANNED; I MADE THEM UP AS I WENT ALONG, AND JUST KEPT ADDING STUFF UNTIL THE SPECTRUM WAS FULL" JON RITMAN

THE MAKING OF…
HEAD OVER HEELS

» If this is to scale, it's going to be a bugger to lug those crowns back to Freedom.

» Head will not get far without his precious doughnut gun. Be sure to pick it up before reaching the market.
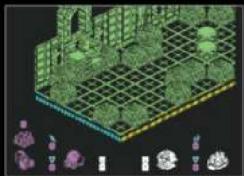
» This room looks huge, but it's actually a clever illusion.

THE REMAKING OF A CLASSIC

Despite the popularity of Head Over Heels, few remakes of the game have surfaced, largely due to its complexity. However, a few years back, Tomaz Kac took up the challenge (apparently because of a "hastily scrawled diagram posted on the Retrospec mailing list about how you can't properly sort isometric games without complex masking," according to co-conspirator and graphic artist Graham Goring), resulting in a faithful update, but with wildly improved graphics and lighting effects that put the original 16-bit conversions to shame. "I've seen the remake, and it's pretty good," says Jon, although he grumbles that "they handled the walls and doors differently, which has damaged the gameplay". Minor problems aside, the remake is impressive, and, for once, it's not only PC users that can join the party – via the game's microsite at http://retrospec.sgn.net/games/hoh/, those who favour Mac, Linux and BeOS can download ports for their computers.

comparison, with a sluggish conversion. Unsurprisingly Jon is an unashamed fan of Sinclair machines (and, by association, Amstrad's output), and his first experience with programming was with one of Sir Clive's earliest models. "I was working as a TV engineer for Radio Rentals when they started talking about renting out computers. It occurred to me they would need engineers that knew their way around them, and so I bought myself a Sinclair ZX81." Within a day, Jon was hooked, and every evening was spent ploughing through manuals and learning Basic. A week later, Jon was immersed in machine language, writing his own hex editor, and realising that he needed to come up with a project to work on: "All I could think of was a game, and within a month I sent my first effort to publishers; a day later, I got a call from Artic Computing, who said they'd buy it".

Initially, platform preference was largely irrelevant, and the ZX81 won out over Commodore's early output purely on price, but as Jon progressed to the Spectrum, he felt vindicated in his decision to buy British: "I always preferred the Spectrum to Commodore's range, because of the freedom it allowed me when being creative – Commodore's hardware pushed games designers towards sprite-based scrolling games." With 48 KB to play with, Jon crafted increasingly complex projects, including the Spectrum's answer to Commodore's International Soccer, the renowned Match Day; but it was his next game that really struck a chord, while also forming the basis for Head Over Heels. "When I delivered the Match Day master to Ocean, I was given a copy of the then-unreleased Knight Lore. When I saw it, my jaw dropped – it was just what I'd always

wanted: a Disney film you could control," recalls Jon, who says he then set about figuring out how to achieve the masking process used for the display, and ended up bettering Knight Lore's effort.

The game that used Jon's new system – Batman – would influence his follow-up. "For the gameplay, I decided what abilities Batman would have and then took them away," says Jon. "I created objects that would give him those abilities – jumping, carrying, gliding – with the idea that you started with nothing and would have to earn each ability. This worked well, and so when working on Head Over Heels, I did the same thing." Those who've played both games will notice other similarities, such as temporary extra powers and the 'resurrection' system, but Head Over Heels has one marked difference to Ritman's first adventure: the symbiotic relationship between its lead characters. When Head and Heels meet up, Head can plonk himself on top of Heels, and the combined freakshow creature inherits both of their capabilities. Alternatively, each character can wander off on their own, providing players with possibilities if they get stuck on one of the game's many puzzles. "I have been praised for the symbiotic relationship over the years, with many considering it genius, but at the time all I thought was that two characters, each having their own abilities, would enlarge the number of puzzles I could come up with," explains Jon.

It's not that Jon's not proud of his game – far from it. It's just that he doesn't appear to want to take credit for things that 'just happened', or where a quick, simple idea worked perfectly. For fans of such a renowned retro game as Head Over Heels, and one that has so many disparate elements that work so

well together, it's surprising to hear that there was no grand plan. "Both Batman and Head Over Heels were basically unplanned – I made them up as I went along, and just kept adding stuff until the Spectrum was full," explains Jon. "Once I had the basic engine, I would sit down to create some rooms, and come up with ideas." For each planet in Head Over Heels, maps were designed to take advantage of the two-character dynamic, with sections built where the two spies' paths would cross; further elements were then added that forced them to split and meet elsewhere. "I would then add the puzzles, making up each in turn, with no pre-planning at all," says Jon. "If I didn't have existing code to handle it, I would program it in and then ring up Bernie to ask for appropriate graphics."

Ah, yes: the graphics. Although Batman was a good-looking game, Head Over Heels betters it and then some. The graphics are quirky and eclectic, with a strong sense of individuality and character. Jon is keen to credit partner-in-crime Bernie Drummond for that aspect of the game. "Bernie has a wild imagination, and seeing as how the entire game was like a bizarre fantasy, I just gave him free rein to make things," explains Jon, when we ask how the designs for the various on-screen objects came to be. "I would just tell him the size I wanted and roughly what I was going to do with it, and he would then give me a bunch of graphics to choose from. I made a point of never worrying about differences in scale, but just chose the best looking stuff." This resulted in legions of Daleks with the heads of monkeys, elephants and even Prince Charles, vicious jet-pack-clad rat-like robots, and hostile, squat droids that look rather like bollards. As if that

"OFTEN, I WOULD HAVE A LOAD OF BERNIE'S GRAPHICS THAT WERE JUST WAITING FOR A USE, AND SO WHEN I NEEDED A 'SAVE GAME' FEATURE, I SAW THE LOVELY FISH AND MADE UP SOME BULLSHIT IN THE PLOT TO EXPLAIN IT" JON RITMAN
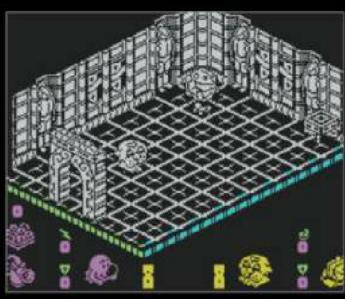
» This enemy is fast, but Heels is faster. Out race him, so that you can jump onto that switch in the corner.

» Head leaps towards a tray of doughnuts, claiming his rotundness is down to being 'big-boned'.
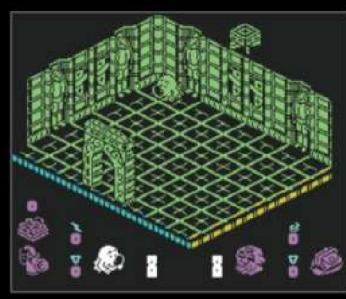
» Falling from great distances isn't a problem for Head, as he has complete control over his movement.
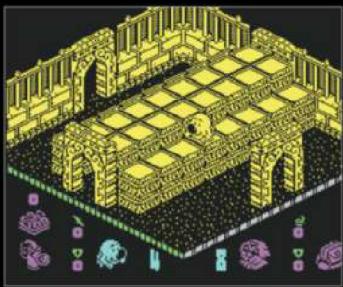
» This is one of the few crossover points that exist before Head and Heels eventually meet up with each other.

» You're a few screens away from the market. Negotiate these conveyer belts and you're almost there.

motley collection wasn't surreal enough, other items ended up having rather more bizarre uses, including huge sandwiches that are used as moving platforms for accessing otherwise inaccessible areas of a room, and the aforementioned giant fish, used as a resurrection device, providing players with a 'second chance' of sorts when all lives are lost. "Often, I would have a load of Bernie's graphics that were just waiting for a use, and so when I needed a 'save game' feature, I saw the lovely fish and made up some bullshit in the plot to explain it," says Jon.

In the universe of *Head Over Heels*, even the more 'normal' items can work in a way other than how you'd expect. For example, early on, Heels can grab a bag, enabling him to pick up objects. However, the bag has a hole in it, which means items are lost if Heels moves to a new room. "This was a method of keeping puzzles in a single room," explains Jon. "I decided on this tactic after playing a game where, like in *Head Over Heels*, you had a certain freedom regarding where you went. This game would have an item in one room that you needed in another, but

often you might come across the item long before you saw the puzzle, having no idea what it was for. You'd leave it behind and by the time you found the puzzle, you'd forgotten the item ever existed." And so for all of the lack of planning when creating *Head Over Heels*, it's clear there was plenty of fine-tuning, in order to produce the most optimal experience. "I used to have a development kit in my living room. Needless to say, friends would come round and want a quick go on the game; I would watch carefully, and anything that proved a major problem would be noted and changed," remembers Jon. "For example, I initially put physical and mental puzzles in the same room, but by watching others play, I spotted that they'd often suss what they needed to do – the mental part – but after failing physically a couple of times, they'd assume they were wrong and would therefore try something else. I realised I needed to separate the two puzzle types."

Luckily for Jon, he was able to concentrate on these important details, because he reckons that despite all of the game's complexity, puzzles and graphics, *Head Over Heels* wasn't a technical challenge: "Once I'd sussed the method, it was pretty damn easy and conversions to other Z80 machines, such as the Amstrads, was simplicity itself". The 6502 and 68000 conversions, however,
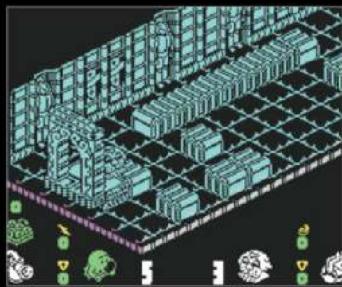
were programmed by others, although via a line-by-line translation that meant they even ended up with the same bugs. "The only major change for the 6502 version was to amend a couple of rooms that had particularly high item counts that strained the resources of the C64's weedy processor," says Jon. The only bleak coding moment Jon admits to was "putting off the scary bit of converting the *Batman* engine to handle the two characters". In the end, there was nothing left to do, and so he had to bite the bullet and get on with it. "Amazingly, it only took two hours," he says. "I was so relieved!"
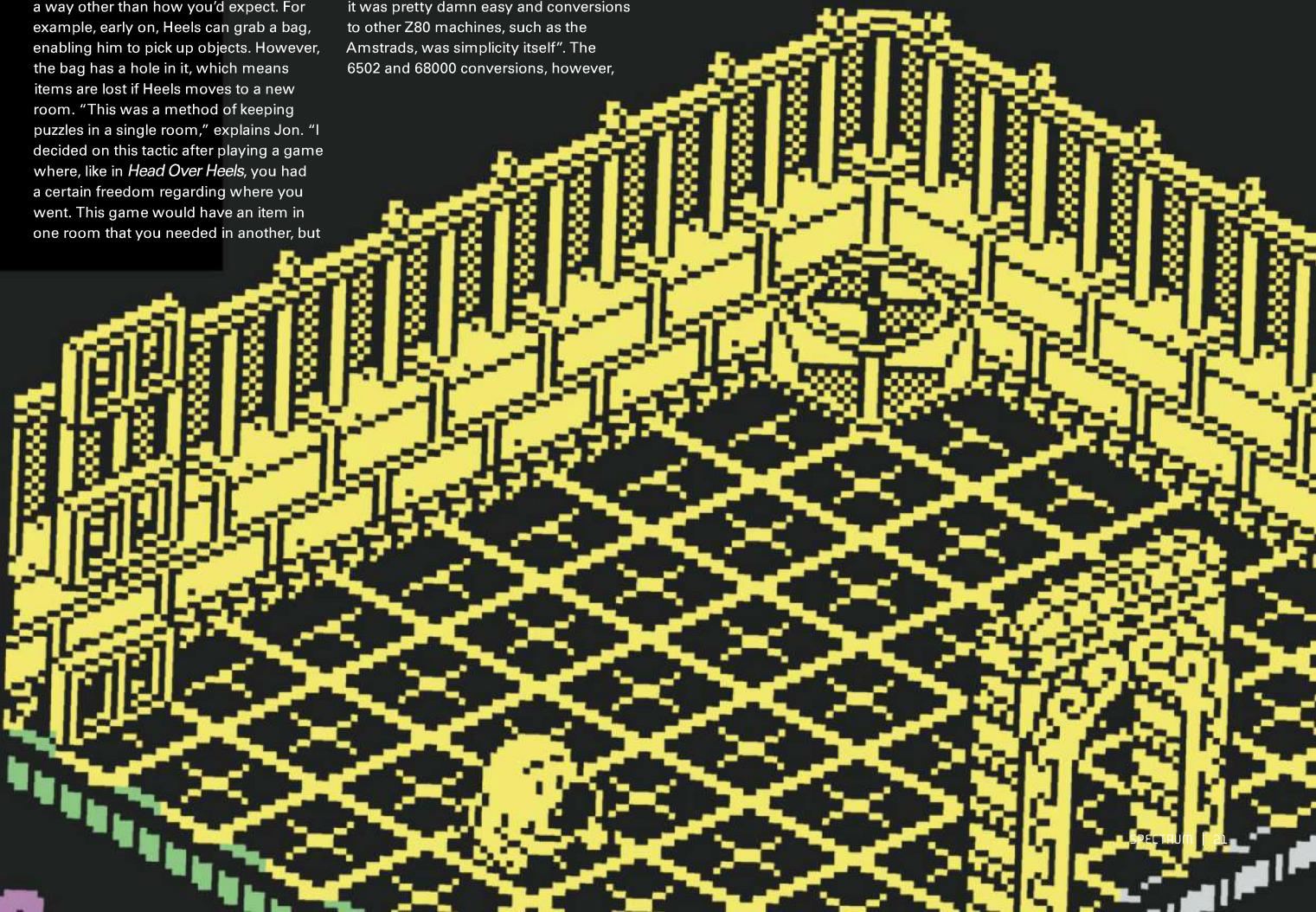
THE SPECTRUM LEGENDS

SINCLAIR'S ZX SPECTRUM WAS AN INCREDIBLY IMPORTANT HOME COMPUTER, WITH MANY CURRENT INDUSTRY DEVELOPERS CUTTING THEIR TEETH ON THE 8-BIT MACHINE. EAGER TO FIND OUT WHY IT MADE SUCH AN IMPACT ON ITS RELEASE, WE DECIDED TO TRACK DOWN SEVERAL CLASSIC SPECTRUM CODERS TO FIND OUT JUST WHAT MADE SIR CLIVE'S MACHINE SO WONDERFUL

Simon Butler

Jon Ritman

Bill Harbison

Andrew Oliver

Ste Pickford

Philip Oliver
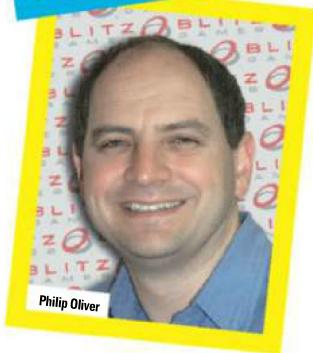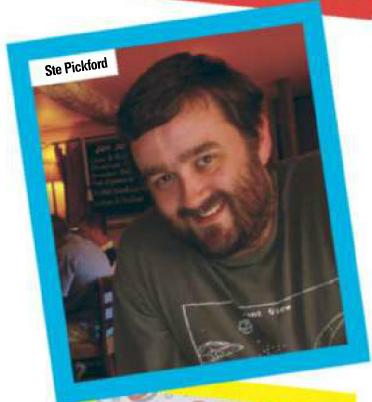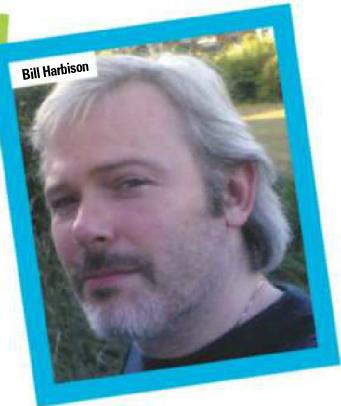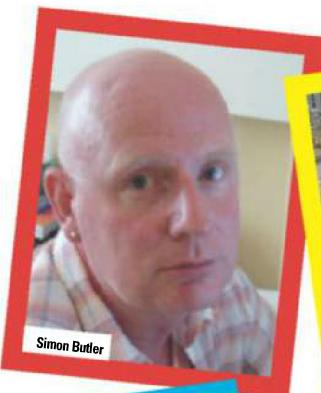
Q. What are your fondest memories of the days when the Spectrum ruled?

Simon Butler: There are almost too many fond memories from those days. Bargain games for a few quid that were better than a lot of the dross doled out these days. By 'better' I mean value for money, and enjoyment value. Also, making up the rules as we went along – that was fun. We had no one telling us how things should be done because no one had done it before. I suppose we were the 'avant-garde'.

Matthew Smith: The fact that arcades were flourishing gave home computer games a lot of their appeal. The newness of everything made us feel we could do things that weren't possible before.

Jon Ritman: That's a hard one. If I can only pick one moment, it has to be when I introduced my very first AI program to *Match Day* – a whole ten lines of code. The rules were a) If you haven't got the ball run at it and b) If you have got the ball kick it up the pitch. Bear in mind that I was bricking

it at the idea of writing AI, and you may appreciate my tears of relief when it scored against me in the first ten seconds.

Philip Oliver: Checking the charts each week as we always had games in the top ten! On a personal front... taking a gorgeous girl I'd just met into WHSmiths to show her what I did for a living. I took her to the Spectrum games shelf, looked for a *Dizzy* game and picked it up to show it to her. As I did so, a kid standing there said, "that's a great game, you should buy that". She's now my wife, but I'd like to think it's not down to that particular moment!

Ste Pickford: Probably before I started making games [1986], when I was just a fan, saving my pocket money up to buy the latest Ultimate game. The games that stick in my memory are those that managed to frighten you. That's something that doesn't happen in games these days, and perhaps can't happen with the level of detail and realism we've got now. There isn't space to use your imagination so much in modern

games, which is where the strongest emotions come from, in the same way that modern movies can never be as scary or spooky as old black-and-white films.

I remember being terrified by a head that appeared in a bush in *Tir Na Nog*. I'd been walking around for hours – getting nowhere in the game – when this floating head briefly appeared then disappeared. It scared me out of my skin. I never got to the bottom of it, and it might even have been a bug, but I felt I'd encountered a taste of the primal magic of the game world.

I remember a Hewson game called *Avalon* that had a similar effect. It was very ambitious in terms of the amount it tried to move around the screen and, consequently, a bit ropey, but its flaws added to its charm and I can remember fear as I ran between floaty walled rooms chased by monsters.

Elite was another game that had a strong effect on me where I was really caught up in the game world. Police ships were terrifying, and getting caught in witch space when going through hyperspace was a genuinely frightening experience.

Bill Harbison: My fondest memory was messing around with games that I had and changing the graphics. I remember typing out a *Donkey Kong* clone that was printed in a magazine and not being impressed with the graphics (basically guiding a mouse up ladders toward a piece of cheese). I decided to do my own, complete with chest-beating Kong. I even went as far as drawing the cover for the cassette box. I also hacked into *Rebelstar Raiders* and changed all the soldiers into space marines. It kept me off the streets.

PO: We developed a way of programming the Spectrum via an Amstrad CPC6128. The electronic device was called SPlink. It enabled us to write games for the Spectrum very efficiently. We had a disk drive for storage, had the source code stored and developed on the Amstrad and the object code running on the Spectrum and no cassette tapes – except when it came to mastering the final game.

SP: Many people have fond memories of *Feud*, but I enjoyed making the Amstrad

but I liked *Chuckie Egg* and *Tir Na Nog*, *Zombie Zombie*, *3D Ant Attack*. It's actually impossible to pick one game and say, 'this one is better than all the others'. We were spoilt for choice.

MS: *Elite*. Squeezing a galaxy into 48k is a remarkable achievement and I like the idea of flying my own ship. I've been an urban spaceman since I was allowed to stay up and watch the Apollo missions.

JR: Where do I start – I can't pick just one, so I will list a few: *Knight Lore*, *Spindizzy*, *Xeno* (I think it was called that) and *Ant Attack*. There were several more, but I suspect the brain cells that held their names died a decade or more ago.

PO: Once the Spectrum was out we spent most of our time coding, however, I do remember seeing the isometric 3D game, *Alien 8*, by Ultimate Play the Game and being amazed at what they had squeezed out of a Spectrum. We were leading coders at the time and just couldn't understand how they were doing it.

SP: Impossible to say – there were so many great games over the years. The games I played the most were *Penetrator*, *Elite*, *Knight Lore*, *Chuckie Egg* and *The Lords Of Midnight*, but there were dozens more.

» If only Head had a laser gun for destroying this wall. The game would have been a lot easier…

"PROGRAMMERS COULD TAKE RISKS BECAUSE THE MONEY INVOLVED WAS SO LOW" JON RITMAN

Andrew Oliver: Every month would see new types of games released. It was a big time for creativity and originality.

David Jones: Just being able to write code when I felt like it and not having to worry about schedules or bosses. Knowing that if I thought a particular feature was amusing that I didn't have to justify it to a producer. At the time I didn't realise how valuable these things were, but I've worked on teams since then and nothing that I've been able to write as part of a team has come close to the level of reviews I managed when I was writing on my own.

Q. What has been your greatest ever Spectrum triumph and why?
Chris Stamper: In the early days we did almost everything connected with making games for the Spectrum. One of the greatest challenges was trying to find space in our already cramped office to store the latest delivery of tapes. At one time we estimated that we had over a ¼ Million tapes stored in our offices in Ashby-de-la-Zouch; they were everywhere in every room, from floor to ceiling, and even up one side of the stairs. We consider the fact that we orchestrated everything in those early days, and weren't buried alive by a mountain of tapes, to be a triumph.

SB: Though I only did the backstory, the character design and the poster design, I enjoyed my time with *Shadowfire*. I got a kick out of *NeverEnding Story* and *Hunchback: The Adventure*. I enjoyed my solo days with Ian Weatherburn, annoying though he was. We were a good team until his companion Roy Gibson reared his head, and then things went pear-shaped.

JR: *Head Over Heels* because it was so well liked and I still get fan mail thanking me for it – it was a lot of fun to design as well.

graphics more than the Spectrum ones, so I can't say that one. I'd have to say the very first Spectrum graphic I ever drew for a game. It was my first day at Binary Design, aged 16, and I was assigned to a darts game that had just started. I was using my brother's 'sprite editor' program and I drew a large animated hand holding a dart based on my own right hand. The game, *180*, was good, and did well, and the animated hand was a unique to our game – other darts games used to light up each number or segment of the board in sequence, and you had to press a button to stop it on the number you wanted. Years later, I'd meet people in the pub who'd played *180*, and I only had to waggle my right hand at them for them to recognise it from the game.

BH: *Chase HQ* was the most rewarding game I worked on, simply because technically it was superior to even the Atari ST and Commodore Amiga versions. Myself and John O'Brien [*Chase HQ* programmer] even received a fan letter – just one – from a very nice chap saying how much he enjoyed the game and offering his congratulations to us for doing such a great job on the conversion.

AO: It has to be *Dizzy*, but more specifically *Fantasy World Dizzy*, the third in the series. It was the last we made by ourselves. It introduced the family, had more story-like puzzles and tasks, and went straight to No 1 and remained in the charts for over a year.

DJ: I was pleased with the Windimation system as used on *Knight-Tyme*. I'd built in all sorts of tricks and data compression to cram more in to the game and as a result I'd been able to keep most of the 128K features on the 48K version.

Q. What's your favourite Spectrum game?
SB: There are far too many to mention. Obviously the Ultimate classics are there,

LOADING DISC ONE…
The games that made the legends famous

HEAD OVER HEELS (JON RITMAN)
While Ritman and Drummond had impressed the gaming world with their take on *Batman*, it was their amazing follow up that everyone remembers fondly. Filled to the rafters with incredible level design, some devilishly tricky puzzles and beautifully designed sprites, it's easy to see why Ritman is so pleased with the final product.

180 (STE PICKFORD)
While Spectrum already had its share of darts games, none of them placed you in control of a wobbly dart-throwing hand – until Pickford's *180* came along. Filled with fun touches (special mention goes to the pissing dog) *180* is an enjoyable game that's a lot better than it has any right to be. After all, darts games are supposed to be boring, right?

DIZZY (THE OLIVER TWINS)
While *Dizzy* wasn't the brothers' first title, it's easily their most important. While a little rough around the edges, *Dizzy* proved to be an extremely popular game that soon spread via word of mouth. By the time *Treasure Island Dizzy* was released, interest in the character was so great that it instantly went straight to the number one spot in the multiformat charts.

SHADOWFIRE (SIMON BUTLER)
Shadowfire proved an interesting blend of genres, and was like nothing else available on Spectrum when it was released in 1985. An icon-driven experience, you controlled six characters each with their own strengths and weaknesses. Beautifully designed and with a tight 100 minutes *Shadowfire* shouldn't be missed under any circumstances.

THE SPECTRUM LEGENDS

» Harbison created his own version of *Donkey Kong* complete with a big ape that beat its chest with its fists. Classic.

BH: Favourite games would have to be *Elite, Match Day II, Hypersports, Highway Encounter* and *The Great Space Race* (only kidding – remember that one?).

AO: I was always fond of Ultimate Play The Game's back catalogue. Games like *Alien 8, Sabre Wulf* and *Knight Lore* were creative and very professionally put together.

DJ: That's a difficult question as I often spent more time writing than playing. I was writing assembly code before the Spectrum was launched so I didn't spend much time playing before I began writing for it. I played more games on my TRS-80 while I was learning to program. You might as well

MS: It placed a powerful machine in the hands of a wider audience than ever before. The rubber keys were an ergonomic boon.

JR: It was a period we'll never have again; programmers could take risks with game design just because the money involved was so low. Many unusual ideas were born.

PO: It was like a console, because it was cheap, standardised and very accessible, but it was a fully programmable computer. The combination got kids hooked on games and then many got curious and wondered what they could do with it. This became the starting point for many of today's games programmers and a great

"DEAD-FLESH KEYS GAVE YOU THE SCREAMING AB-DABS, BUT IT WAS THE PLAYSTATION OF THE TIME"

ask a plumber what his favourite plumbing installation is. Obviously I played all the well-known titles, but it was mostly to see what everybody else was up to.

Q. What did the Spectrum contribute to the gaming world?
SB: Creativity and enthusiasm that has all but disappeared from the industry today. It spawned a generation of coders and artists who have gone on to some dizzying heights while others have just disappeared. It generated thousands of gamers who were passionate about games in a way that is missing with today's console titles.

» Quite possibly one of the greatest Speccy ports ever created and it's all thanks to Bill Harbison.

deal of the UK's leading industry talent & figures including Phil Harrison, Head of Worldwide Game Studios for Sony.

SP: Invention. It was a time when the world of videogames wasn't dominated by licences and sequels. Developers were allowed to create videogames rather than merchandise and promotional items for Hollywood and major sports authorities. There was an incredible outpouring of ideas and concepts because of this, particularly on the Spectrum because of its more flexible architecture.

The Commodore 64 and the other American home computers had hardware features to help you make games – character screens, smooth scrolling, hardware sprites and so on. While on the face of it these features should make these computers better game machines, in practice they actually limited the range of games on those machines to only those suited to sprites floating over a scrolling character background.

Spectrum, on the other hand, merely had a bitmap screen and a processor. If you wanted to move a sprite or scroll the screen, you had to write the code yourself to do it. This had the advantage

» Bill Harbison looks back on the Speccy years fondly, and hacking *Rebelstar Raiders* kept him off the streets.

of filtering out the worst programmers – many of whom ended up on C64 in my experience – as you had to be of a certain standard just to be able to move a sprite around the screen. It didn't impose any particular style of game, because nothing was easier to write than anything else. Sprites were hard, scrolling was hard, star fields were hard, 3D was hard – everything was equally hard.

Consequently, there were a massive variety of game styles, genres and graphical systems in use. I don't think any games machine has such an original, varied and interesting back catalogue.

BH: It contributed cheap home conversions of established arcade games and gave young programmers the chance to introduce hybrid genre games like the *Dizzy* series and the *Gargoyle* series including *Tir Na Nog*. They also brought fully 3D-shaded games to the home market ten years before the big consoles made 3D the norm.

AO: It created an environment where hobbyists could write games and sell them – something that we've sadly lost now. And it put Britain ahead in game development, as places like Japan and America never really had the same easy route from hobby to job.

DJ: Because of the limited graphics capabilities it was an ideal platform for developing gameplay, which is something that was missing in the first machines that came after the Spectrum.

Q. What was the most frustrating element of working with the Spectrum?
SB: Roy Gibson. Apart from that, I never got frustrated with the Spectrum. I loved it and still do now. It was my favourite machine and it helped me get into WAP game graphics 20 years later. I learned what I know about animation while developing for it and it gave me many, many happy hours of gaming fun.

MS: None that I can think of. I had mine slaved to a TRS-80 so none of the inconveniences affected me. The

architecture of the machine was simple and well documented in the manual.

JR: Attributes!

PO: Cassette Tapes were very annoying! We always wished it was faster – but that's been the case of every computer in history! I wish Clive Sinclair had taken a royalty from all games produced like all consoles as this would have helped him stay in business and produce more cool games machines. Although the QL was flawed in so many ways – perhaps not!

SP: As an artist, the frustration was always with colour. Not only with the limit of only two colours per character square, but also with the limited palette of only eight colours – including black and white. All the other home computers could switch to more colourful modes, perhaps with bigger pixels but with more colours allowed in each character square, and a wider palette of colours. I used to dream of being able to draw something in orange. Another frustration about working on the Spectrum was using micro drives. The most unreliable storage medium ever invented. I used to have to draw every graphic in a game at least three times over the course of development because I'd lose files from the micro drives so frequently.

BH: The lack of colours on the screen and the low screen resolution. This meant that you were restricted creatively and unable to produce the quality of work you could visualise in your mind.

AO: Using the keyboard, and the tape drive. Generally people tried to write-to-write games on the Spectrum itself, which was very hard. If it crashed, you'd lose your work, and have to reload from tape. It was the few that hooked another computer to it. In our case, the Amstrad CPC, with decent keyboard and disc drive.

DJ: Very little. It had a very simple architecture and enough memory to write decent games. I'd be happy to write for it now if there was still a market for it.

"I WISH CLIVE SINCLAIR HAD TAKEN A ROYALTY FROM ALL GAMES PRODUCED AS THIS WOULD HAVE HELPED HIM STAY IN BUSINESS" PHILIP OLIVER

SB: I have nothing but fond memories of the Speccy. The colours, or lack of, was annoying, but overall it was my machine of choice when developing or gaming.

Q. And the most rewarding?
MS: Being able to produce high-res, colorful graphics was the best part, compared to other systems at the time. The first machine I saw was an Apple 2, which was out of the price range of most British people. It was also nice to know that Spectrum games did no harm to the Balance of Payments Defecit (British industry was collapsing at the time).

JR: Simplicity of dealing directly with the hardware and the freedom to avoid any sort of operating system.

PO: The success of the Spectrum meant so many people had games machines. Before the Spectrum only real geeks had computers; when the Spectrum came along even girls had computers!

SP: I used to work on multiformat games – for Spectrum, Amstrad and C64. The Spectrum version ended up being the main version – the version you wanted to play. Because of the technical difficulties

LOADING DISC TWO...
The games that made the legends famous

CHASE HQ (BILL HARBISON)
Along with *R-Type*, *Chase HQ* on Spectrum is one of the greatest coin-op conversions the machine has ever received. Boasting highly detailed visuals, wonderfully authentic gameplay and great speech (on the 128K version), *Chase HQ* proved that Sir Clive's humble machine was more than capable of mimicking a coin-op that cost thousands of pounds.

JETPAK (CHRIS STAMPER)
You never would have realised that this was the first game that the Stamper brothers released. Beautiful presentation, gorgeously detailed sprites and fast, frenetic gameplay all combined to create a dazzling debut that's still a dream to play today. Rumours persist of the game being updated and released for Xbox Live Arcade, but, so far, both Microsoft and Rare are keeping schtum.

KNIGHT-TYME (DAVID JONES)
While this is the third game in Jones' *Magik Knight* franchise, it just so happens to be the very best (especially if you can track down the superior Spectrum 128K version). Boasting plenty of new characters, a diverse range of locations and an amazing soundtrack by David Whittaker, *Knight-Tyme* is a title that no Spectrum owner should be without.

HIGHLANDER

» *Bonkers* was David Jones' first published game and was a clone of *Frogger*.
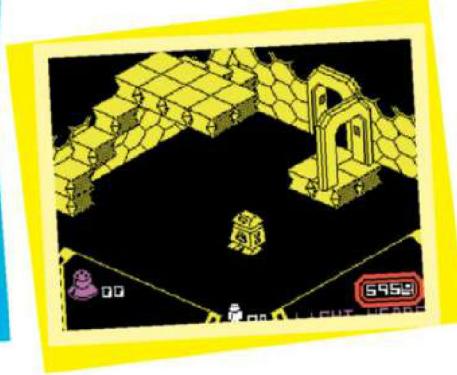
» Not every game Simon Butler worked on was amazing, as *Highlander* proves.

of working on the Spectrum, it tended to attract the better programmers, so that was one reason, but the Amstrad was too slow, and the C64 looked crap with its washed-out colours. The Spectrum also had the nicest keyboard for playing games on. So for all those reasons the Spectrum version of the games I worked on was always the one I played the most.

"FEW OF US WERE RICH ENOUGH TO OWN THEM ALL AS KIDS, SO THE HOME COMPUTER WE HAD WAS OUR FAVOURITE" STE PICKFORD

BH: Because there were limitations on the graphical output of the machine, it was all the more impressive if you managed to use the ink and the colour attribute to your advantage and create an attractive loading screen. I remember being in a computer shop when *Chase HQ* was released. I was stood behind two kids who were watching the game load in from tape and when the screen came up on the TV one turned to the other and said, 'Wow! That is one righteous loading screen.' That was funny and at least he could count.

AO: Getting things working really quickly. Although writing assembler is very slow, you could spend a day, and get something moving around the screen quite quickly. There were also lots of 'hacker' type tricks that would make things very fast. Things like 'self modifying code' – that really is a no-no, but in those days, if it worked, it was cool. And even in code, it felt innovative.

DJ: Well, there was plenty of money floating about for those of us who could write for it! Most rewarding though was seeing the reviews after I'd written something that I was pleased with and seeing that other people liked my efforts.

Q. Why do you think the Spectrum remains so popular with gamers?
CS: The gameplay. Once you got past the technical aspects of doing what you wanted and because the graphics, although simple, took a major effort to make them great, you simply honed the gameplay. What really made the games special was that a larger percentage of the overall effort went into this; it made for some truly great and imaginative games.

SB: Because it's British. I've no idea really. There just seemed to be a glut of games out there with hundreds more just waiting to be released every month. Crash was our bible and there never seemed to be enough space for all the reviews. With no Internet it was the only salvation if you needed a game tip or even better a map. It was small and black and sexy, and apart from the horrible dead-flesh keys, which gave you the screaming ab-dabs after

a while – it was the PlayStation of the time. It kicked ass over C64 as far as I was concerned. There was a certain pompous attitude about Commodore development. Even though I did graphics for many C64 titles I preferred the Spectrum. You drew something, and if you were a halfway decent artist then it looked like what you intended. C64 graphics? Although he's one of my all-time favourite sprites, just look at Bruce Lee. I rest my case.

MS: It can only be the rubber keyboard. Seriously though, modern games have a sameyness about them. This is just a phase, as the current push towards physics acceleration will open up new avenues.

JR: It isn't. Just a few odd people think it is.

PO: It kick started the UK games industry and was 100% British from the quirky but brilliant entrepreneur Sir Clive Sinclair.

SP: Hmm. Nostalgia, I guess. It seems a pretty even split among people I meet – Spectrum or C64, with the odd Amstrad fan, and I've re-enacted the playground arguments in the office a few times. Very few of us were rich enough to own them all as kids, so whichever home computer we had was our favourite.

BH: It's because the Spectrum played such a big part in the lives of a whole generation of kids growing up in the Eighties and Nineties. It was there when they were growing up and we always look back rapturously on our childhood and how the sun was brighter and the grass was greener. It wasn't, but that's how we recall it.

AO: It created so many new original gamers and started up the industry, certainly for the British.

DJ: It has to be the gameplay because it isn't the graphics. Well done Sinclair for putting it out there with the colour clash and everything though, because if they'd waited to develop a non-colour clash machine it might have missed the market and we'd all have been stuck with the Commodore 64. I could write 6502 code as

» The superb *Sabre Wulf*, easily one of Chris Stamper's finest gaming moments.

well, but I had the set up for Z80 so I'd have been behind on writing my games and might not even have got around to it.

Q. Do you think bedroom coders can still exist in the industry?

SB: They'll never get rich, but as long as they enjoy what they do, turn out quality product, and entertain people then that's all that matters. The bastards who wear the suits have all-but destroyed the UK game development scene and have ensured that the days of the bedroom coders or the cottage industry development teams are over.

MS: They can, and with the internet, there is no reason why they can't flourish, in my opinion. The mainstream media has a tendency to devote all its column inches and airtime to big PR stunts from the established giants, but the specialist press will always give independents a fair crack of the whip.

JR: While not actually programming in my bedroom, it's only a few feet away. There are a few left who tend to work on very small projects such as embedded games and mobile games.

PO: Very tough, but *Darwinia* is one of those rare exceptions that proves it's just possible. But what's better these days is that people can realistically choose making games as a serious career and there are many large professional companies that they can join to do so. And unlike the "bedroom coders" they don't need to be masters of multiple disciplines and risk everything!

SP: I hope so, as I've become one. I think the mainstream videogame industry has lurched too far toward making only slick, high-budget, blockbuster-type products, and hasn't encouraged enough original, lower budget titles to come through to provide the ideas for the blockbusters of the future. There are creative developers within the industry who can't express themselves as part of a 60-man team working night and day to draw a thousand new kits for *FIFA 2007*,

or to program the gearshift simulator for licensed car #37 in racing game #58. The only option for these people is to leave the industry to do something more rewarding, or to make games as an 'Indie'. So many developers are turning to Indie development that I think Indies and bedroom coders are going to become an accepted part of the world of videogames providing the stream of new ideas we used to get from regular games in the Spectrum days, but which seems to be missing from the modern videogame industry.

BH: In some ways it's easier for bedroom coders with the introduction of the Internet. People can get the tools and resources they need, they can get advice on programming for all the way through the project, and when completed they can sell it direct to the customer. I don't think it's enough to make anyone a millionaire, but it can be a good living.

AO: It's difficult. The tools and platforms aren't really in place for it. It doesn't feel cool, when the market has so many huge, flashy games around. The gulf between what you can achieve on your own and what's in the market place seems too big. But, people must try, and we'd like to encourage that spirit to return.

DJ: No. Well, maybe, but they'd have to be clever as they would need to develop a lot more code to even get a simple game going. Maybe a company could produce a series of supported libraries that include a decent renderer, a resource system, external chipset interfaces etc. The best bet I see for a potential bedroom coder is to use Direct X to write the best game demo software they can and then use that as part of their CV to get in with a small development team.

Q. What do you think of the Spectrum games that are still being released by the likes of Jonathan Cauldwell?

SB: Unfortunately, I don't play any Spectrum games these days. I know precious little about the current Spectrum games, but friends who are 'in the

know' tell me great things, so I suppose I should check them out.

JR: I haven't. I don't have a working Spectrum now but I do intend to get an emulator for my DS, and perhaps a GP2x

if the pennies stretch that far.

JR: I had no idea.

PO: Sadly I had little time to play Spectrum games in the mid-Eighties, now I have a company of 175 staff and a family – I'm afraid I don't have any time! But if Jonathan is looking for a rewarding long-term career in a stable, friendly company of like-minded, skilled game developers he should get in touch.

SP: No, I've not played any of them. I think it's insane. The Spectrum is a difficult machine to write for, and incredibly limited. Why put yourself through the pain of making a Spectrum game now when you don't need to? If you're talented enough to make a finished Spectrum game, then you're talented enough to make a game that other people might play. Why hide away on a dead format?

BH: I'd not heard of Jonathan so I decided to Google him. It looks like a lot of fun, but I'm not sure how popular it is.

AO: I haven't played any of them. Way too busy. I applaud people who make this kind of effort, and hope these people get jobs making games. Even though it's hard work in the games industry, it's cool going to work and being able to create

new games, and although some of the originality has been lost, there's many things like Live Arcade that should help bring it back. We're feeling very good about how the quality of games is getting better all the time, and we're being

"THE BASTARDS WHO WEAR THE SUITS HAVE DESTROYED THE UK GAME DEVELOPMENT SCENE; THE DAYS OF THE BEDROOM CODERS ARE OVER" SIMON BUTLER

compared more and more to Hollywood. But we can overtake films.

DJ: I wish them the best of luck with it and no, I haven't played them.

Q. What has been the defining moment of your career?

CS: With regards to the Spectrum, peeling the cellophane off the very first copy of *Jetpac* that we got back from duplicators, seeing it load, playing the game, and knowing that this was a real and saleable product was something I will never forget.

SB: I remember many years ago that Gary Bracey ran a computer store in Liverpool long before he became my lord and master at Ocean, and I called in with Ian Weatherburn to buy some blank

» *Batman* was the first game that Ritman worked on with friend Bernie Drummond.

» *Knight Lore* was Sabreman's first isometric adventure
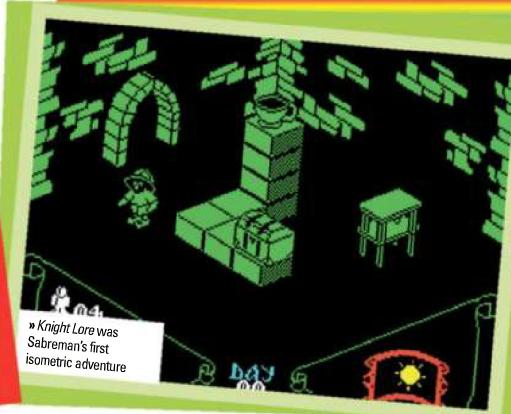
discs. Gary's shop was cram-packed with kids, and he got me to autograph some copies of *Shadowfire*. While far from 'defining', it stuck with me. It was one of the first times I met Gary, and although it embarrassed me somewhat being put on the spot like that it made me realise that kids really enjoyed what I did for a living.

I recently got a job with a mobile

"I THINK I'VE MADE EVERY MISTAKE IT'S POSSIBLE TO MAKE. I REGRETTED THEM AT THE TIME, BUT REGRET FADES" STE PICKFORD

games company working in France and the boss rattled off games I had worked on saying that I was one of the guys who was instrumental in him getting into the industry. Contrary to what my father always thought, maybe I haven't wasted the last 25 years of my life after all.

MS: It must be the excitement in the Bug Byte office when I brought in a half-finished *Manic Miner*, or maybe it was when I was in London receiving a Golden Joystick award. I have dabbled in other jobs, but nothing has ever

» A little game called *Match Day* proved the defining moment of Jon Ritman's shining career.

generated this kind of enthusiasm and appreciation.

JR: *Match Day* – six months after a brief conversation with David Ward of Ocean (that I barely recalled) he phoned to say, 'that football game you were going to write, did you do it?' I then confirmed it was a couple of weeks from completion

and he offered me a huge amount for it – well it seemed huge at the time.

PO: Yikes - that's a tough question. To be honest our success has come through lots of small steps over the last 25 years. Significant steps were getting hooked on *Pac-Man* ('81), Winning "The Saturday Show" ('83), Meeting the Darling Brothers ('85), as they were just starting Codemasters and *Dizzy*. After that we set up Blitz and everything has been planned and worked for, sadly no major lucky breaks, but we're still in the game! I guess we've been very fortunate to hire a lot of very talented and loyal staff that we now treat as "part of the family". More details of our early days can be found at www.OliverTwins.com.

SP: I hope it hasn't happened yet. I've never had a big hit game, and never made a lot of money, both of which I'm still working

on. *Laughs* I'm still making games, and learning with every game I work on. The Pickford Brothers' latest game – *Naked War* – is the best game we've ever made, and I'm confident that the next game we write after that will be even better. I'm looking to the future, not the past.

BH: I think it was being invited with a few workmates to the press premiere of *Jurassic Park* at Leicester Square – it was certainly an experience.

AO: Probably having over ten UK number ones with Codemasters, and then setting up our own company.

DJ: I don't know really. I have a number of different careers. Maybe I'll knock out some more games and have a defining moment some time in the future. However, finding out from a member of the Crash review team that *Finders Keepers* would have been a Crash Smash (90% or greater overall review score), but that they were told to knock the review down to 89 ½ per cent because Mastertronic didn't advertise with them was very interesting. Sort of a defining moment, as I hadn't realised until that point that there was a certain amount of 'massaging' of the review scores based on the level of publisher advertising. It meant that I knew my review scores were always accurate or lower than they should be, but it also meant that I could take other high reviews with a pinch of salt if that publisher had a lot of adverts in that issue of the magazine.

Q. And finally, what was the biggest mistake of your career, if any?
SB: Probably not learning one of the many 3D packages out there. I wouldn't

have bounced around the industry as much as I have, and would have had a lot more stability in my life. But I was a 2D guy back then and that's what I am today. I'm the last dinosaur.

JR: I should have started up my own company early and published myself.

SP: I can't really pick anything. That's not to say that I haven't made any mistakes – I have. I think I've made every mistake it's possible to make in this business. I regretted them at the time, but with hindsight the regret fades. Every mistake I've made has taught me something which has helped me later.

I'm pretty good at making games now, after 20 years, because I've learnt the hard way how not to make games. I've made mistakes in business and missed opportunities, but every mistake has led me to where I am today. Okay, I'm skint, but I'm making the best game I've ever made, and enjoying every minute of it, and I'm looking confidently to the future.

BH: Leaving the industry a few years ago after the local job scene dried up. I spent 18 months doing a proper job, and hated it. Thankfully, I'm back in the industry working at Rockpool Games in Manchester with a few of my old colleagues, some of whom I've known for over 18 years.

If there's one thing we've learned about retrogaming, it's that your money can stretch an amazingly long way. Granted, a mint copy of *Radiant Silvergun* is going to cost you a small fortune, but, trust us, there are plenty of worthy titles out there that can be picked up for less than a fiver. Hiring a mercenary or renting a rhino for the weekend can be a costly affair, we're told, so *Rex* makes a pocket-friendly alternative to both.

REX

» **SYSTEM:** ZX SPECTRUM
» **RELEASED:** 1988
» **PUBLISHER:** MARTECH GAMES
» **DEVELOPER:** THE LIGHT
» **EXPECT TO PAY:** A FEW QUID

It beggars belief that we still go out and buy games, when munificent websites such as worldofspectrum.org are providing titles like *Rex* for free (with permission, we might add). Quick, slick and stylised, *Rex* made enthralling playability on a simple machine look easy, nailing players to the joystick in a way that's seldom seen in today's wintry gaming climate. Oozing colour and detailed animation, The Light's combined debut and finale was a sure winner even before the addictive gameplay had you hooked.

Although the back story isn't as relevant now as it was in 1988 (we suppose environmentalism never goes out of fashion, but toward the end of the Eighties, even Mrs Thatcher pretended to care about the ozone layer), the anthropomorphic

» There are some gruesome looking enemies in *Rex*.

» The Living Tower is mighty high, and something unpleasant waits at the top...

» Got stuck in the catacombs? Try this code: 8980898909608208 (cheater)

eco-warrior took to his guns in order to prevent the oh-so-callous human race from making use of a megalithic, contaminating power station built on his home planet. Our horny hero enters in good assassin fashion through the underground catacombs that all denizens of wrong doing invariably build their 'impenetrable' fortresses upon.

Chocked-full of gun turrets and armed minions (despite heavy munitions and power stations being a volatile combination), *Rex* treks his way to the top of the tower via a variety of routes, depending on which direction tickles the player's fancy.

Whichever path is taken, rest assured the stalwart rhino will need a calm and analytical approach to thwarting the humans and their defences to make it to the tower, though hanging around in strategic contemplation is a sure way to get him shot. *Rex* is a most difficult game.

One of the most impressive features has rarely been reproduced with any alacrity: the rapid hit bonus. Shooting down an enemy soldier is fine, but keep piling the bullets in and he'll keep staggering backwards, being peppered like so much fillet steak until you finally let up on the trigger – as much fun as it is unnecessary. It does, however, exemplify the anguish and frustration *Rex* must have been feeling to embark on such a righteous mission – to save his planet from pollution.

As luck would have it, he came armed with enough firepower to, well... bring down a power station. By collecting 'power bubbles' left by bested enemies, his weapons output is granted progressively destructive might. Used in conjunction with a personal force shield (that depletes during use), he is more than a match for the towering fortress, assuming the player is bold enough of character to endure the mammoth task.

The game is split nicely in two (originally making use of side B on the tape): the mines that lead to the base of the structure, then the ascension of the tower itself. This second level, of sorts, was accessed by an ingenious 16 digit anti-cheat code that told the game engine in what condition you had completed the first phase (how many lives remained, etc). Despite following the same style of invigorating gameplay, the new enemies and vastly different architecture on Side B flavoured the proceedings in a whole new way, adding immensely to *Rex*'s longevity.

All in all, *Rex* is a truly superb Spectrum blaster that really needs to be experienced by everyone, regardless of their 8-bit preference, while its pick up and play nature remains timeless. You are not allowed to call yourself a platformer fan until you've at least seen the tower in this marvellous monster mash.

» Game over; world saved. Don't you just love it when a plan comes together?

THE TRAP DOOR

THERE IS SOMETHING DOWN THERE...
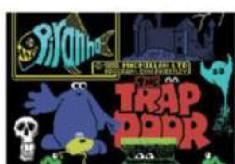
» **PUBLISHER:** PIRANHA
» **RELEASED:** 1986
» **GENRE:** GRAPHIC ADVENTURE
» **FEATURED HARDWARE:** ZX SPECTRUM
» **EXPECT TO PAY:** A FEW QUID

HISTORY

Berk's aghast expression says it all really. The Thing who lives upstairs has called for a can of worms, causing chaos down in the basement. Berk opens the trap door to release some worms, only for an evil spirit to escape from the depths below, while Drutt, Berk's spider-like pet, starts eating the damn worms, sucking them into his mouth like pieces of spaghetti. Meanwhile, beneath the trap door, a cast of weird and wonderful characters are waiting to emerge, including a fire-breathing robot and a bug-eyed thing with a penchant for stamping on stuff. "A joke's a joke," as Berk once said in the animated TV show on which the videogame is based, "but this goes way beyond the realms of light entertainment..."

I don't remember much about *The Trap Door* TV series. When it first aired in 1984 I was still in short trousers and a lot of the warped humour whizzed right over my head. Don Priestley's game, on the other hand, made a much greater impression on me and I can clearly recall certain scenes in glorious Specnicolor: Berk boiling 'slimies' in a cauldron; Berk filling a vat with oversized eyeballs; Berk chasing after a freaky purple bird, trying to catch falling eggs in a frying pan. While the various puzzles were devilishly inventive, it was the super-sized graphics that made the game so memorable. Don Priestley used this bold visual style before and after *The Trap Door*, but never to better effect. In terms of looks it's as close to the TV show as you could ever hope to see on the Spectrum.

Going back to the game today is a slightly shocking experience, not because it hasn't aged well, but because it's actually better than I remember it. Thanks to its great graphics, smart gameplay and superb presentation, this quirky classic still manages to leave me open-mouthed – a bit like poor old Berk.
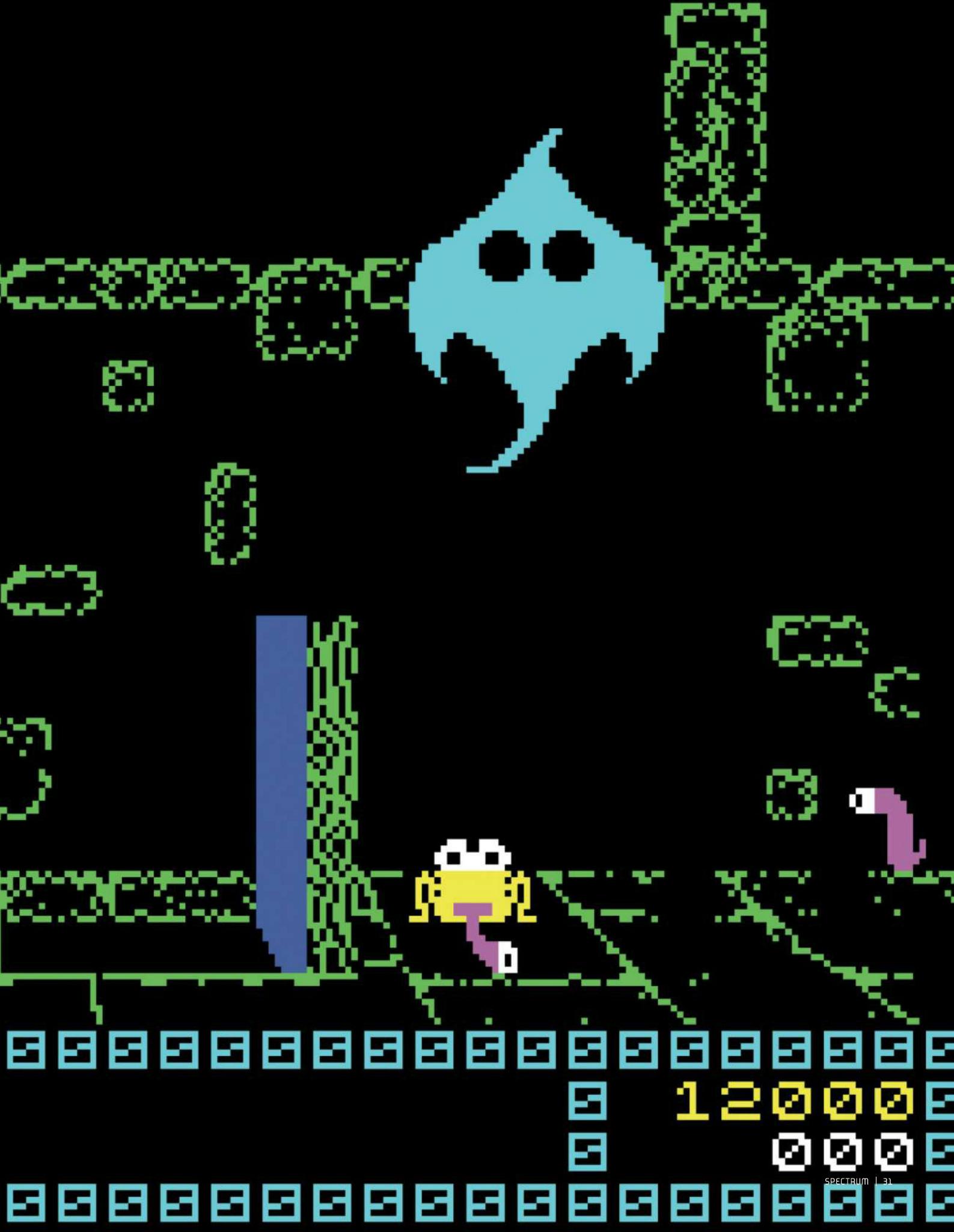
When it comes to Spectrum success stories, no developer was as big, or as respected as Ultimate Play The Game. Based in Ashby-de-la-Zouch, its founders, Tim and Chris Stamper started off in the arcade industry, before plying their trade on the ZX Spectrum. The results were some of the finest videogames to ever appear on the machine, ranging from the arcade thrills of Jetpac, to the ground-breaking visuals of Knight Lore. Now known as Rare, it has worked for both Nintendo and Microsoft, and remains an important developer. This is its story…

IN BRIEF

Originally formed in 1982 by brothers, Chris and Tim Stamper, Ultimate is one of Britain's videogame success stories and is still thriving 30 years later. Initially creating games for the ZX Spectrum, Ashby Computers & Graphics Ltd (as it was then known) later became Ultimate Play the Game, and finally, Rare. Along the way, the Twycross-based developers formed a close partnership with Nintendo and had a string of hit titles across a wide range of its consoles. Now owned by Microsoft, Rare is currently working on Kinect and new Xbox 360 titles.

Ultimate Play The Game

If you owned an 8-bit computer in the Eighties, then chances are you had at least one game that boasted the famous blue and green logo of Ultimate Play The Game on its loading screen. If you owned any of the Nintendo systems from the NES up to the N64, chances are you played more than a few games bearing the Rare logo. And if you're one of the lucky few to nab an Xbox 360… well, you see where this is going.

Most developers are lucky to rise to the top in one era of gaming without stumbling or being swallowed by a faceless rival. And while Ultimate may now be a part of the Microsoft empire, the company still retains its own identity and acclaim. But, as with most of these stories, things began on a much smaller scale. It was 1980 and the 21-year-old Chris Stamper, then studying physics and electronics at Loughborough University, was bowled over by the emerging world of micro technology – and in particular the way that computers could be used to control things on the screen.

With off-the-shelf home computers still a pipe dream he assembled his own from a kit – the RCA CDP1802 – the fastest machine around at the time. Teaching himself how to program, Stamper created a traffic light management system and was hooked. Quitting his degree course, he took a job working on the circuit boards of early arcade machines, converting *Space Invaders* into *Galaxian* and fixing bugs. When the ZX80 arrived on the high street, he snapped one up and spent two years mastering the intricacies of games programming. Finally convinced he had a handle on how to create better games than the

early commercial efforts, Chris joined forces with his younger brother Tim, his girlfriend (and later wife) Carole Ward, and an old college friend, John Latchbury. They even had some transatlantic connections thanks to their arcade work, with Joel Hochberg of Miami-based Coin-It Inc as their American contact.

With these basic pieces in place, in 1982 the group formed Ashby Computers & Graphics Ltd. Funding their early growth by selling pre-made arcade conversion kits, they worked in the house next door to their parent's newsagents in glamorous Ashby-de-la-Zouch, before beginning trading under the title Ultimate Play the Game. Chris and John concentrated on the programming, while Tim and Carole handled graphics. It was a small but efficient set-up. In an interview with Keith Ainsworth's Retrogamer fanzine, the Stamper brothers looked fondly back on these formative years.

"They were great times. When we had deliveries we would store goods in the toilet, on the stairs, in our bedrooms. We had no money - when bills came in we all chipped in. The electricity one was always huge but we made sure that was paid first."

After six months of mounting debts, in May 1983 Ultimate struck gold with its first commercial release – a single-screen shooting game for the ZX Spectrum called *Jetpac*. In an era when computer owners gobbled up any new software, as much for the novelty as for playability, *Jetpac* delivered both in spades. Fast, furious and enormous fun, it played more like the arcade machines Chris had worked on as a young man than a first effort on a new format, and it set a high benchmark

» *During the 8-bit era Ultimate's talent was unmatched.*

» *Underwurlde continued the adventures of Sabreman.*

» *Tranz Am* **was an interesting racer from Ultimate.**

JETMAN'S TRAILER PARK

As far as gaming urban legends go, it's up there with the gigantic space dredger in *Elite* and nude Lara in *Tomb Raider*. The loading screen and inlay artwork of *Lunar Jetman* clearly shows the moon buggy towing a trailer – yet it doesn't appear in the game. Or does it?

An anonymous player – some still point the finger at either Chris or Tim Stamper – sent a screenshot into *Crash* magazine showing the buggy hooked up to the legendary trailer, thus sending thousands of gamers scurrying to spend agonising hours exploring every inch of the freakishly tough game looking for the space caravan. Debate raged in letters pages and playgrounds across the UK, as gamers boasted that they'd seen it themselves.
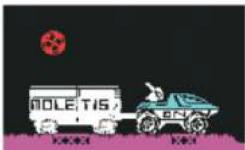
So did it exist?

Er, no. An enterprising soul disassembled the entire game code and found not one trace of a trailer among the sprite files, thus conclusively disproving the myth. But did you know about the helicopter in *Sabre Wulf*? That's real. Honest. We've got pictures and everything…

for the other nascent British software houses to match. Selling over 300,000 copies, *Jetpac* ensured that with only one game to its credit, Ultimate already had a turnover in excess of one million pounds.

Its experience in dealing with arcade companies in the US and Japan meant that unlike many of the emerging UK developers, Ultimate combined a passion for technology with shrewd business sense. At a time when many games were still written in BASIC, Chris and Tim were beavering away in Z80 machine code, making their games faster, slicker and more compelling than their competition. While the image of the naïve bedroom Speccy coder prevailed – no doubt inspired in part by the eccentric professor appearance of Sir Clive himself – the Stampers were already thinking ahead, and building a business plan for the next generation of games hardware.

But in the meantime they kept servicing the existing market, and within two months of *Jetpac's* launch they'd added another three games to the Ultimate portfolio – the ozone-destroying pesticide game *Pssst* hit in June, with *Tranz Am* and *Cookie* following in July. As 1984 dawned, Ultimate's output was beefed up to take advantage of the 48k Spectrum and the *Jetpac* sequel, *Lunar Jetman*, and *Atic Atac* made the most of the new processing muscle. *Lunar Jetman* introduced scrolling gameplay, as Jetman tried to get his Moonglider buggy back to base, but *Atic Atac* in particular left rival titles in the dust. A vast maze game, it was one of the first titles to feature a multi-level game map, with stairs leading up and down, secret doorways linking rooms and trapdoors plunging you down to the level below. You could even choose one of three heroic characters, and the choice actually impacted the gameplay by determining which hidden passageways you could use. The aim of the game was simple – find the three pieces of the ACG key (a cute nod to Ashby Computers & Graphics, of course) and escape from the front door of the castle. However, the sheer size and complexity of the game made it a mammoth undertaking for players.

1984 also saw the computer magazine trade take notice of the

rising popularity of games, with many of the existing technical titles introducing a more gamesy slant, and the launch of *Crash*, a magazine that shoved the serious side of computing out of the way and appealed directly to the growing number of kids and teens hunched over their rubber keyboards. *Crash* scored both *Atic Atac* and *Lunar Jetman* highly, awarding *Atic Atac 92*% and *Jetman 95*% (with a staggering 100% awarded for Value For Money). Thus began a long and fruitful relationship between Ultimate and Newsfield's mag. In an exclusive 1987 interview for *Crash*, Tim Stamper admitted that Ultimate had a soft spot for the Ludlow-based publication.

"CRASH always gave us fair reviews," he told editor Roger Kean, "but with some of the other magazines, if we didn't advertise, the product got a bad review – and I was actually told by a few of the other companies that they thought the problem existed as well. So we steered clear of speaking to anyone, and if they liked the product great, and if they didn't I wasn't bothered, because if the sales were there people were buying it."

Already the mystique surrounding these gaming alchemists was growing, cementing their reputation as a company that followed its own rulebook. They didn't do exclusives, they didn't do interviews or press visits and they sent out review copies to all the mags at the same time, usually right before the game went on sale. This veil of secrecy wasn't deliberate – at least not at first. It was simply because the team was small and incredibly busy, so dealing with journalists was not a priority. As time went by though, Tim and Chris realised that the air of mystery was actually beneficial to the company – giving them a sort of Willy Wonka meets Stanley Kubrick allure, the reclusive geniuses of the Spectrum world.

Between the best-selling games and the almost complete lack of information about the people who made them, Ultimate became one of the first games companies to not only earn brand recognition, with gamers looking forward to the next release because of the company rather than the concept, but also one of the first developers to have a

» Too many cooks spoil the broth!.

"KNIGHT LORE, THE SEQUEL TO SABRE WULF, TOOK THE FUZZY, FEATURELESS LOOK OF EARLY ISOMETRIC PIONEERS LIKE ANT ATTACK AND TURNED IT UP TO ELEVEN"

The ending of *Underwurlde* featured three exits from the castle, each bringing up an ending screen highlighting one of three planned sequels in the Sabreman saga. The first, *Knight Lore*, we all know about – it revolutionised 8-bit gaming. A second sequel, *Pentagram*, followed in 1985, but what of the promised third Sabreman game, the cryptically titled *Mire Mare*?

As well as being trailed at the end of *Undewurlde* and *Pentagram*, it was briefly mentioned in *Sinclair User's* June 1987 issue where they stated that "US Gold knows nothing about it and Ultimate is, as usual, locked in a bunker and not talking to anybody." Other than those tantalising hints, the existence of the game slowly slipped into the realms of myth.

However, a recent interview with a conveniently anonymous ex-Ultimate employee on the Ultimate Appreciation website claimed that the game was not only pretty much completed (before *Gunfright* came out, no less) but that it was held back because Chris and Tim Stamper wanted it to be the big Spectrum finale for the Ultimate brand. But by that point Ultimate was in the hands of US Gold and the Stamper's were – allegedly – so unimpressed with the large corporation's desire to focus on budget re-releases rather than investing in new titles that they pretended *Mire Mare* wasn't even close to being finished, just to keep it out of US Gold's clutches. Everyone moved on and the code for *Mire Mare*, so painfully close to completion, was damned to an eternity in limbo.

Fact or fiction? Well, frankly the story reeks of rampant fan speculation or industry rumour mongering, as nothing in Chris or Tim's history suggests the sort of people who'd let a great game, months of work and a sizeable profit sink into oblivion just for the sake of a petty grudge, but who knows? Maybe one day some completed code will bubble up from out of the online soup and we will know the truth for sure…

bona-fide fanbase. And if Ultimate kept the press at arm's length, the opposite was true of the people who played their games.

"We could have expanded, like some companies did, with a large fan club and giveaways and posters to buy" Tim told *Crash*, "And we could have said, 'If you like Ultimate, buy the games, buy sweatshirts,' but in fact we gave them all away. If anyone asked us for a sweatshirt or a cap we said 'well, you can have it'. We were just interested in seeing the software out there and getting fair reviews."

The games kept coming, and so did the innovations. *Sabre Wulf* was the first Spectrum game to abandon the traditional £5.50 price point, leaping to a then unimaginable £9.95. The idea was to try and stop people letting friends tape the games, assuming that if people paid more for something, they'd be less willing to let someone else swipe it for free. The price hike didn't harm *Sabre Wulf's* sales though, and higher prices soon became standard for all Spectrum software.

It was their next release that truly defined Ultimate for many gamers though. While 3D graphics weren't completely new *Knight Lore*, the sequel to *Sabre Wulf*, took the fuzzy, featureless look of early isometric pioneers like *Ant Attack* and turned it up to eleven. With large, bold sprites and intricate room designs, it isn't overstating the case to say that *Knight Lore's* Filmation graphics engine did for gaming what sound did for the movies. It opened up the gameworld, allowed gamers freedom of movement in all directions, and gave designers the chance to devise ever-more fiendish challenges. It's safe to say that without *Knight Lore*, there'd be no *Tomb Raider*, and modern gaming would look very different. And yet, amazingly, *Knight Lore* was finished before the 2D action of *Sabre Wulf*. Showing their now customary business acumen, the Stamper's realised that the market wasn't yet ready.

"If we released *Knight Lore* we wouldn't have sold *Sabre Wulf*", Tim told *Crash*, "There was a little bit of careful planning in there. We just had to sit on it because everyone else was so far behind." And so it came to pass that a defining classic of the 8-bit era sat on the shelf until the time was right.

Once the 3D floodgate was opened, there was no stopping Ultimate. *Alien 8*, *Nightshade* and *Pentagram* all used the same viewpoint to great effect. By the time the western adventure *Gunfright* came around in 1986, reviewers were starting to express misgivings about Ultimate's reliance on their Filmation technique, and Chris and Tim were realising that they'd pushed the Spectrum as far as it could go. While most of the Britsoft publishers saw their future in the imminent arrival of 16bit computers like the Commodore Amiga and Atari ST, the Stampers had their eyes on a different prize. Thanks to their arcade contacts, Chris and Tim had been following the development of consoles coming out of Japan. In fact, as far back as 1983, when *Jetpac* was state of the art, they were tinkering with a NES console, and figuring out how to make games for it.

"We knew a market was going to boom in Japan and America, and we set Rare up to handle that", said Tim in 1987, "Obviously we didn't want to give too much away because we needed time to develop our associations before they really became aware of it."

For a company seen as quintessentially English, it was a bold but shrewd move for the pair. Retaining a stake in Ultimate, they sold off the label to US Gold and moved over to their new company – Rare. And as Ultimate withered away, offering only the *Collected Works* compilation as a farewell, for most British gamers the secretive whiz kids seemed to vanish from the scene.

In actual fact, having convinced Nintendo to allow it official access to the NES development circuit, Rare was incredibly busy – turning out dozens of titles for the console, and licensing them to American publishers. Going from being the toast of the town in the Spectrum market to an anonymous code factory for a weird Japanese toy probably seemed like lunacy to their rivals, but by 1989 Rare was pumping out 17 titles a year rather than the five or six they used to produce as Ultimate. From major TV and movie tie-ins, to original concepts, Rare kept delivering products on time, on budget and racking up impressive sales for their US paymasters. It didn't take long

» *Sadly, Pentagram wasn't Sabreman's adventure.*

» Ultimate's first Filmation game: *Knight Lore*.

» *Nightshade* was fun, but samey.

"IT WAS CLEAR THAT DESPITE THEIR PHILOSOPHICAL COMMON GROUND, NINTENDO'S FUTURE IN THE HARDWARE MARKET WAS SHAKY AND RARE COULDN'T AFFORD TO KEEP ALL ITS EGGS IN THEIR BASKET"

ULTIMATE HOMEBREW

Given their iconic status in the minds of most retro gamers, and the fact that ROMs of the originals are strictly forbidden, it's no surprise that the Ultimate games are well represented on the homebrew remake scene. *Jetpac* leads the way, thanks to its simple gameplay, with dozens of variations. Most capture the charm and fun of the original, but some go that extra mile. *Jetpac* 2003, available on Remakes.org, delivers 3D graphics and varied levels while *Super Mario Pac* (www. hermitgames.com) combines the water-squirting fun from *Mario Sunshine* with *Jetpac* gameplay to hilarious effect. *Lunar Jetman* receives similar treatment in *Looney Jetman* over at www.retro-games. co.uk, in a game that finally includes the infamous trailer.

A gorgeous looking update of *Knight Lore* can be downloaded from classic-retro-games.com, and while it doesn't add anything beyond modern graphics, the sheer size of the game is impressive. *Atic Atac* fans can choose between a straight remake from MinionSoft (www.minionsoft. com), or *The Burps*, an *Atic Atac* inspired title that features a rather dubious sheep obsession. Get that curio from www.ovine.net. *Sabre Wulf* is well represented by Sandwell Software (www.dexfx.pwp. blueyonder.co.uk) whose remake is spookily accurate – but retains the flaws of the original as well as its plus points.

And finally, the swarthy gents at RetroSpec (retrospect.sgn.net) offer up groovy new PC versions of *Jetpac*, *Lunar Jetman*, *Cookie* and *Pssst* with their usual aplomb. RetroSpec is also currently working on a remake of *Sabre Wulf*.

for Nintendo to realise that the UK company was a valuable asset, and a strong working relationship developed between the two. Having clocked up a staggering 41 NES games in four years – plus Game Boy conversions – Rare was well-placed for preferential treatment when the next generation consoles rolled off the production line.

And if the rivalry between Nintendo and Sega was fierce over the Master System and NES, it got positively bloody with the Genesis/ Mega Drive and SNES on the shelves. Despite having a powerful console, Nintendo couldn't compete with Sega's edgier image, and the SNES struggled to make its mark. Enter Rare. It had been working on a way of transferring the hi-res graphical output of their Silicon Graphics workstations to the new SNES system, and impressed Nintendo's Genyo Takeda when he paid them a visit. "We decided to show him a demonstration of a boxing game we had created using rendered graphics on a Silicon Graphics workstation", Chris Stamper told the Screenager website, "He was very impressed and asked what it would look like on a SNES, so into the evening and the next day we had two of our engineers work on taking the 24-bit true colour imagery and converting it to SNES." The result was enough to earn Rare unprecedented freedom to deliver a killer app for the Japanese giant's struggling console. With Mario off-limits, Chris and Tim looked for another Nintendo character everyone would recognise. One name stood out above all others – Donkey Kong. Back in the day, the grumpy monkey had been the star with Mario reduced to supporting status, but by 1993 he'd dropped so far off the radar that his last appearance had been years earlier in an educational title for the NES. Rare had found its new hero.

The resulting game, *Donkey Kong Country*, not only turned around the fortunes of the SNES, it put Rare in the development spotlight. UK gamers at last discovered what the minds behind Sabreman had been up to all these long years. Such was *Donkey Kong Country's* prowess – from the astonishing graphics to the impeccable game design – it not only held Sega at bay, but many also credited it with sinking the likes

of 3DO and the Atari Jaguar. Why splash out on an unproven new console, the reasoning went, when Nintendo's 16-bit machine can deliver gameplay and graphics like this? Needless to say, Rare was now one of Nintendo's key developers, and it worked on the Donkey Kong brand, and Game Boy conversions while the technology geared up for the next technological shift.

1996 saw the launch of the Nintendo 64, with Sega and console newcomer Sony already head-to-head with CD-based 32-bit machines. As usual, Nintendo did things its own way and opted for a cartridge-based 64-bit system. While many saw Sony gobbling up market share with its enormous investment in hundreds of titles, Chris and Tim Stamper were happy to stay loyal to Nintendo, finding kinship in their preference for quality over quantity.

"I think Sony has a wonderful brand name and they have a very good machine", Chris told *Edge* magazine in 1997, "but at the end of the day I think that if it's quality that you're looking for, I think that you have to pick the N64."

"It's kind of getting like the old budget market in the UK in the Eighties, when there was a rush of substandard software", Tim agreed, "I mean, we're in the industry and I couldn't tell you what all the PlayStation games are like. If you gave me a list of the 300 or so titles released by this Christmas, I just wouldn't know what they're like. And how anybody else, a mother, a father, or brother or somebody who's got a machine – i s going to know which game to buy unless they're specifically told is beyond me."

The reason for the Edge interview was the launch of yet another Rare classic *GoldenEye*. Although the brothers were wary about taking on a major license for a high profile console, their reputation allowed them the sort of creative freedom that would allow them to deliver a superb game, and a great adaptation. Such was this freedom that Rare was able to deliver a Nintendo game that included violent death, something of a first for the squeaky clean company.

GoldenEye was an international smash, earning awards and plaudits

HANDHELD WULF

In 2004 Rare made one of its, well, rare forays into its closely guarded back catalogue by producing a *Sabre Wulf* game for Nintendo's Game Boy Advance. Naturally, many retro fans drooled in anticipation at the prospect of a portable version of the beloved classic, but Rare had other plans. Rather than an updated jungle maze romp, the resulting title was more of a traditional platformer – with a small smattering of adventure elements – as Sabreman travelled from village to village solving puzzles and going on quests. The meat of the gameplay involved finding and using a variety of friendly creatures (such as Blubba the bear) to get past obstacles. At the end of each level was the item you were after, as well as the angry 'wulf' of the title. He then chased you back through the level, leading to some breathless last-minute escapes. It was actually a charming and innovative game, and received favourable reviews, but sales were elusive. For fans of the franchise, the fact that it clearly wasn't the *Sabre Wulf* of old was a turn off. For everyone else, the *Sabre Wulf* brand just wasn't popular enough to stand alongside the likes of *Pokémon* and other gaming juggernauts. Rare continues to plug away at the handheld market though, with *Banjo Pilot* being another recent update of a past hit for the portable player.

» *Jetpac was a fun, fast-paced shooter.*

» **Loading screens often looked amazing.**

across the board. Rare went on to deliver another N64 hit in the shape of *Diddy Kong Racing*, a standard kart racer that marked the first time the Rare name was used to publish a title. More N64 games followed, but as the format battled in vain to catch up to the PlayStation, inventive and entertaining titles like *Jet Force Gemini*, *Conker's Bad Fur Day* and *Banjo-Kazooie* found limited audiences. The *GoldenEye* team's second offering, *Perfect Dark*, wowed those who played it in 2000, but without the money-making Bond license it just wasn't enough to pull the N64 out of its nosedive. It was clear that despite their philosophical common ground, Nintendo's future in the hardware market was shaky, and Rare couldn't afford to keep all its eggs in one basket. Rumours of a buyout flew, as publishers sized up the company's potential. Somebody would buy it, that much was obvious. But who?

In 2002 the mystery was solved. Rare was absorbed into Microsoft Game Studios to produce titles for the Xbox. It was a shaky start for Rare though, with many expecting them to simply churn out the say quality they had for Nintendo. Aside from *Grabbed By The Ghoulies*, Rare only produced a remake of its excellent N64 hit *Conker's Bad Fur Day* for the Xbox, due to other titles getting pushed back for Microsoft's Xbox 360. *Perfect Dark Zero* and *Kameo: Elements Of Power* launched on Xbox 360 and showed that Rare had lost none of its technical skills, while *Banjo-Kazooie: Nuts & Bolts* and two *Viva Piñata* games, proved that Rare was still a force to be reckoned with when it came to creativity and innovation in games. Recently however, there's been a significant change in the company, particularly since the Stampers left the company in 2007.

Rare is now heavily involved in developing tech and new software for Microsoft's popular Kinect peripheral, with *Kinect Sports: Season 2* being its most recent release. It's unclear what the future holds for the company, but, unlike so many other once-great Britsoft legends which got lost in the swamp of corporate ownership, Rare still operates much as Ultimate once did. Press is limited, secrecy is paramount…and gameplay is king.

SOFTOGRAPHY

1983
Jetpac (Spectrum, BBC, Vic 20) - Ultimate
Atic Atac (Spectrum) - Ultimate
Pssst (Spectrum) - Ultimate
Tranz Am (Spectrum) – Ultimate

1984
Alien 8 (Spectrum, Amstrad, BBC, MSX) – Ultimate
Entombed (C64) - Ultimate
Cookie (Spectrum) – Ultimate
Knight Lore (Spectrum, Amstrad, BBC, MSX) - Ultimate
Lunar Jetman (Spectrum, BBC) – Ultimate
Sabre Wulf (Spectrum, C64, Amstrad, BBC) – Ultimate
The Staff of Karnath (C64) – Ultimate
Underwurlde (Spectrum, C64) - Ultimate

1985
Blackwyche (C64) – Ultimate
Nightshade (Spectrum, C64, Amstrad, BBC, MSX) - Ultimate
Pentagram (Spectrum, MSX) - Ultimate

1986
Outlaws (C64) – Ultimate
Cosmic Battlezones (BBC) – Ultimate
Cyberun (Spectrum, Amstrad, MSX) - Ultimate
Dragonskulle (C64) - Ultimate
Gunfright (Spectrum, Amstrad, MSX) – Ultimate
Imhotep (C64) - Ultimate

1987
Martianoids (Spectrum) - Ultimate
Bubbler (Spectrum, Amstrad) – Ultimate
Slalom (NES) - Nintendo

1988
The Collected Works (Spectrum) – Ultimate
R.C. Pro-Am (NES) – Nintendo
Wheel of Fortune (NES) – Gametek
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Anticipation (NES) - Nintendo

989
Marble Madness (NES) - Milton Bradley
World Games (NES) - Milton Bradley
WWF Wrestlemania (NES) – Acclaim
Sesame Street 123 (NES) - Hi Tech
John Elway's Quarterback (NES) – Tradewest
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1990
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Jeopardy! 25th Anniversary Edition (NES) – Gametek
The Amazing Spider-Man (Game Boy) – LJN
Captain Skyhawk (NES) - Milton Bradley
Pin Bot (NES) – Nintendo
Snake Rattle 'N' Roll (NES) – Nintendo
Super Off Road (NES) – Tradewest
Wizards & Warriors X: Fortress of Fear (Game Boy) - Acclaim
Narc (NES) - Acclaim
A Nightmare on Elm Street (NES) - LJN
Super Glove Ball (NES) – Mattel
Cabal (NES) - Milton Bradley
Time Lord (NES) - Milton Bradley
Arch Rivals (NES) – Acclaim
WWF Wrestlemania Challenge (NES) – LJN
Solar Jetman (NES) - Tradewest

1991
Digger T. Rock (NES) - Milton Bradley
WWF Superstars (Game Boy) – LJN
Battletoads (NES, Game Boy) – Tradewest
Beetlejuice (NES) - LJN Super
R.C. Pro-Am (Game Boy) – Nintendo
High Speed (NES) – Tradewest
Sneaky Snakes (Game Boy) – Tradewest
Sesame Street ABC & 123 (NES) - Hi Tech
Pirates! (NES) - Ultra Games

1992
Wizards & Warriors III (NES) – Acclaim
Beetlejuice (Game Boy) – LJN
Indy Heat (NES) – Tradewest
R.C. Pro-Am II (NES) - Tradewest
Championship Pro-Am (Mega Drive) - Tradewest

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Battletoads Double Dragon (NES, SNES, Mega Drive, Game Boy) - Tradewest
Battletoads in Ragnarok's World (Game Boy) – Tradewest
Battletoads in Battlemaniacs (SNES) – Tradewest
X The Ball (Arcade) - Capcom/Brent Walker/Tecmo
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1994
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Donkey Kong Country (SNES) - Nintendo
Killer Instinct (Arcade) - Williams

1995
Donkey Kong Land (Game Boy) – Nintendo
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1996
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1997
Blast Corps (N64) – Nintendo
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Diddy Kong Racing (N64) – Rare
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1998
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1999
Conker's Pocket Tales (GBC) – Rare
Jet Force Gemini (N64) – Rare
Donkey Kong 64 (N64) – Nintendo
Mickey's Racing Adventure (GBC) – Nintendo

2000
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Donkey Kong Country (GBC) – Nintendo
Mickey's Speedway USA (N64) – Nintendo
Banjo-Tooie (N64) – Nintendo

2001
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2002
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2003
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Kameo: Elements of Power (Xbox 360) - MGS
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Viva Piñata (Xbox 360) MGS

2007
Diddy Kong Racing DS (DS) Nintendo
Jetpac Refuelled (Xbox Live Arcade) MGS

2008
Viva Piñata: Trouble In Paradise (Xbox 360) MGS
Viva Piñata: Pocket Paradise (Xbox 360) THQ
Banjo-Kazooie: Nuts & Bolts MGS
Banjo Kazooie (Xbox Live Arcade) MGS

2009
Banjo-Tooie (Xbox Live Arcade) MGS

2010
Perfect Dark (Xbox Live Arcade) MGS
Kinect Sports (Xbox 360) MGS

2011
Kinect Sports: Season Two (Xbox 360) MGS

IN THE KNOW

» **PUBLISHER:** OCEAN

» **DEVELOPER:** DENTON DESIGNS

» **RELEASED:** 1986

» **GENRE:** ISOMETRIC ADVENTURE

» **EXPECT TO PAY:** A FEW QUID
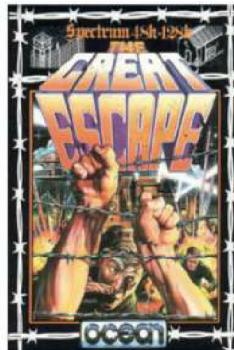
THE GREAT ESCAPE

On its release the Spectrum magazines showered The Great Escape with medals – a Crash Smash, a Sinclair User Classic and a Your Sinclair Megagame. High honours indeed, but just how groundbreaking was the game? Martyn Carroll goes under the fence to find out.

When Ocean announced in 1986 that it was releasing a game based on the classic WWII film *The Great Escape* it hardly called for a victory salute (except possibly of the one-fingered variety). After all, Ocean had already dragged to market some appalling licensed products – *Street Hawk* and *Knight Rider* spring to mind – so there was every chance it'd make a mess of the much-loved movie.

Thankfully it wasn't to be, as the game was not a product of Ocean's in-house production line. Instead it was created by Denton Designs, the highly-respected team behind *Shadowfire*, *Frankie Goes to Hollywood* and the Spectrum version of *Spy Hunter*. And it was merely "inspired" by the movie rather than based directly on it, so there was no Charlie Bronson digging tunnels or Steve McQueen jumping over fences on a motorbike. Denton took the basic plot of a gutsy prisoner caged in a German POW camp

and built around it one the 8-bit era's most memorable titles.

Rather than a series of levels, *The Great Escape* features a single stage (the camp) which runs on a strict daily routine. To view the monotony of camp life you don't have to do anything; relinquish the controls and your character will go about his daily business. He'll get out of bed when prompted, then attend morning roll call in front of the German officers, before reporting to the canteen for breakfast. In the afternoon the prisoners

» This is your humble abode, complete with bed, table, and secret tunnel entrance. Very handy that…

"THE GREAT ESCAPE IS DEFINITELY ONE OF THE BEST GAMES EVER SEEN ON THE SPECTRUM"

CRASH ISSUE 35

DEVELOPER HIGHLIGHTS

SHADOWFIRE
SPECTRUM/AMSTRAD/C64 (1985)

FRANKIE GOES TO HOLLYWOOD
SPECTRUM/AMSTRAD/C64 (1985)

WHERE TIME STOOD STILL
(PICTURED)
SPECTRUM/PC-DOS/ATARI ST (1988)

are allowed time in the exercise yard, before attending evening roll call and returning to their huts at the day's end.

In the privacy of your hut you can start to explore your surroundings. There's a stove in the corner, which, when pushed aside reveals a secret tunnel. It's too dark to explore though – you need a torch or something similar. There's nothing else here, so you step outside, taking care not to get caught by the search light that sweeps the camp at night, and sneak into the neighbouring hut. There are no secret tunnels here, but you do find a bottle of poison. Maybe you could use that to deal with the dogs guarding the perimeter fence? For now though you need to get some shut-eye to keep your morale up.

When the next day dawns you begin to suss out your surroundings. After roll call, instead of going straight to the canteen, you try a couple of nearby doors. One is locked (need to find a key…) but the other is open, leading to a small room containing the Red Cross parcel. One of these arrives each morning and it's used by the allies to sneak items into the camp. On day one it contains a rather pointless bag of coins, but on day two a pair of wire cutters are waiting for you. That's more like it. Other items are hidden around the camp, including: a torch, so you can see where you're going in the tunnels; a spade, just the job for unblocking a caved-in tunnel; a useful lock-pick; and best of all, a German uniform which lets you explore restricted areas without arousing suspicion.

With what seems like 101 useful items for escaping a prison camp at your disposal, you'd think you'd be on your way back to dear old Blighty by the end of day two. But naturally it's not that simple. There are the German guards to contend with for a start. They patrol set routes and operate on a basic line-of-sight principle, so it's possible to sneak past them when they turn away. It's

certainly not an exact science however, and there's a degree of randomness about being caught, which only serves to increase the tension. There's arguably nothing more heart-stopping in any 8-bit game than trying to pick a lock or cut a hole in a fence (which takes around 10 seconds) while the alarm bell is blaring and the guards are after your blood.

If you do get caught, the items you're carrying will be confiscated and you'll spend a morale-sapping night in solitary. And if your morale hits rock bottom, control is relinquished and your character will shuffle around the camp like a zombie, following the daily routine. Busting out really is the only option and there are several avenues of escape, all of which require careful planning and the correct equipment. A bit of good fortune comes in handy too.

The Great Escape's non-linear gameplay was a breath of fresh air back in 1986, particularly in this genre, and the game's isometric graphical style was just as innovative. For the camp's interiors the game adopts a familiar static approach, much like Ultimate's 3D adventures, but outside the player is treated to a scrolling isometric view. Being able to explore the camp without having to flick between multiple screens really builds a sense of 'being there' in a perfectly realised location. The speed at which the

viewpoint scrolls is also impressive, at least on the original Spectrum version (the Commodore 64 and Amstrad CPC ports are sluggish in comparison). Presentation is also spot on, with your morale depicted by a flag, which rises and falls, and your score displayed as a row of war medals.

Like the film on which the game is not based (it's "inspired", remember), *The Great Escape* is an 8-bit classic that has stood the test of time. Even if you've managed to escape several times before, getting the right gear together and breaking free is still a thrilling experience. Okay, so if you're playing via emulation then you'll want to crank up the speed a little, but the sense of atmosphere and the spirit of adventure remain tangible to this day.

» The tunnel is not just a sneaky way of travelling around camp, you can also hide goodies in it.

» It's a good job there was no CCTV, otherwise you'd end up in the German version of When Good Prisoners Go Bad.

» When you're caught in the spotlight the guards will be attracted like moths around a light bulb. Make sure you're not spotted!
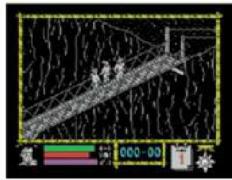
TURN BACK TIME

Following the success of *The Great Escape*, Denton began work on a follow-up that would utilise the same isometric graphics system but feature a completely new scenario. The result was *Where Time Stood Still*, a sprawling adventure for the Spectrum 128k that took place in a primitive world, pitting a party of plane crash survivors against cannibals, carnivorous animals and various other things that wanted to eat you. This pseudo-sequel is much more linear than *The Great Escape* – you simply have to guide the party from A to B – but there is an emphasis on teamwork and resource management, as you have to switch control between the four characters to solve a series of tricky puzzles. *WTSS* is an epic adventure and a perfect companion piece to *The Great Escape*. It's kind of fitting that the staff at Denton were involved in Imagine's infamous 'mega-games', because with *WTSS* they ultimately created a game that truly deserves that title.

THE GREAT ESCAPE'S NON-LINEAR GAMEPLAY WAS A BREATH OF FRESH AIR BACK IN 1986, PARTICULARLY IN THIS GENRE AND THE GAME'S ISOMETRIC GRAPHICAL STYLE WAS JUST AS INNOVATIVE
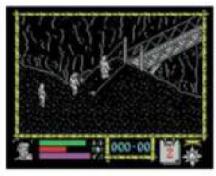
HOLY MOLY: THE STORY OF

Monty

MOLE

Craig Grannell charts the progress of everyone's favourite videogame mole, from coal thief to superhero, with the help of co-creators Pete Harrap and Tony Crowther, ex-Commodore coder Jason Perkins, and SID chip virtuoso Rob Hubbard

Ian Stewart, managing director at Gremlin Graphics, was once into double letters for initials, remembers Tony Crowther: "There had been *Potty Pigeon* in 1984, and then he came up with the name Monty Mole and asked me to write a game using the character." At the time, Tony was fixated on creating scrolling games on the C64, such as *Son Of Blagger*, and he thought he could do something better with the knowledge he'd since gained.

Through experimentation, Tony got a larger and faster scrolling platform game working: "Getting the tech right was a big challenge, but I had a crude sprite running around the map, and integrated a randomly generated maze, which at the time I was fascinated with." Once the *Monty Mole* name was decided, the game was moulded to suit. Tony recalls that with the game being designed on a big map, anything that didn't fit was dispensed with, and he aimed to include as much variety as he could. "I did have issues with the maximum number of sprites, with only eight allowed on the same line," he adds. "So the design worked around the number of available sprites, and also motion: I wanted to make as many moving parts as possible, with conveyer belts and crushers."

In a curious case of parallel development, Tony's game wasn't the only one in the works. Pete Harrap was given the same loose brief, but his target platform was the ZX Spectrum. With the Speccy lacking the hardware tricks necessary for full-screen scrolling, Pete unsurprisingly came up with something very different, inspired by *Manic Miner*. "That was the type of game I enjoyed back then – a mix of humour, simplicity and 'how do I get up there before I run out of time?' puzzles," he says.

DOWN THE PIT

In Pete's hands, Monty's Spectrum debut also took on a political bent. Pete placed Monty in a coal mine, making a daring raid to grab enough fuel to see himself through a long, cold winter. This was played out against a backdrop of

IN THE KNOW

PUBLISHER: Gremlin Graphics
DEVELOPER: Gremlin Graphics/ Core Design (*Impossamole*)
PLATFORM: Various
RELEASED: 1984–1990
GENRE: Platform
EXPECT TO PAY: £1+ per game

DEVELOPER HIGHLIGHTS

THING ON A SPRING
1985 | C64, Amstrad

JACK THE NIPPER (pictured)
1986 | Spectrum, C64, Amstrad, MSX

real-world industrial action in the UK, with coal miners striking, urged on by National Union of Mineworkers leader Arthur Scargill, who makes a brief appearance in the game, in caricature form. These elements rewarded Pete's game with a television appearance and led to promises by Gremlin to make a donation to a miners' charity.

"The miners' strike angle was because my dad was a coal-face worker, annoyed that he never got a vote on the strike," explains Pete. "Miners used to be very democratic, and it wasn't fair for my dad to be made to strike to satisfy the ambitions of Scargill, no matter how right he was about mine closures. He treated the miners as though they were stupid and couldn't decide for themselves."

This being the Eighties, Pete didn't create a typical mine for Monty to explore. Although it included a trip on a mine cart, dangerous falling debris and, of course, coal, it was also populated by all manner of surreal and dangerous foes, including demons and leaping sharks. "The visuals were fun, based on items that could be used in a mine, scare you, or make you laugh," he says. "My favourite was the dripping candle, although you wouldn't get a naked flame in a real mine!" It was also decided that the Spectrum version should be a flick-screen adventure rather than aping *Manic Miner*'s single-screen approach, to "allow the player more choice on where to go next". Having started with what later became the game's second screen, a mine entrance, Pete worked up maps and figured out how they linked together, which determined the types of platforms that were required. The game was very rapidly put together, taking about three months in all.

» *Monty On the Run* on the Spectrum lacks Rob Hubbard's stunning C64 tune, but is still great fun.

» Helpful tip: don't fall down a mountain and get eaten by a yeti!
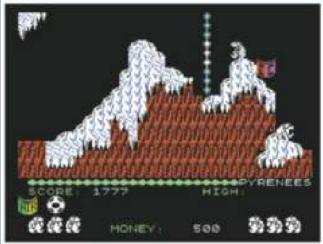
VICIOUS STREAK

Although Tony and Pete mostly worked in isolation – Tony recalls that his game was pretty much done by the time the Spectrum version was started, but Pete says the first he knew about the C64 version was when his game was almost finished – there was still time before shipping to swap a few ideas.

According to Pete, a couple of changes were demanded by Ian, who considered the Spectrum version to be "lacking a little oomph". Pete duly pilfered Tony's coal-crushers and added them to his game, then made them more vicious: "I was the one who made their movement in the Spectrum version random… guilty!"

Since Pete had decided on the game's hero stealing coal, that component was added to Tony's game. Additionally, Ian felt both games needed some kind of opening screen, and so Pete devised a scene where Monty sneaks up to a miner's house and grabs

his coal bucket, before making a break for the mine, pursued by an angry miner and dodging massive acorns dropped by a crazed squirrel. A variant was added to the C64 version, but Pete took the added step of making all the coal in the Spectrum game invisible if you didn't first collect the bucket. "I guess I'm a bit cruel," he laughs. "But I felt it was obvious. How can you collect coal without a bucket?"

With *Wanted: Monty Mole* complete, Pete was satisfied, and while he'd have liked more screens and sprites – he explains that he never found a suitable spot for a digital version of his head – no grand plans were cut. "In hindsight, I'd give you a bit of warning on the crushers and clues about what might kill you – I was too cruel sometimes," he muses. "But I remember standing in WHSmith, looking at my hard work on a shelf, when a nine-year-old walked up and said, 'I want that one,' which was a proud moment." And on the varying versions that ended up being produced? "Tony's game was excellent, making full use of the C64's hardware, and, if I'm honest, it worked better than mine

LIFT

would have if directly ported. But mine was best. I'm biased!"

GOING IT ALONE

With a second game starring Monty having failed to trouble the charts (see 'Monty Is Innocent'), Pete was asked to design a sequel more in keeping with his original. "Since he'd escaped prison, Monty was on the run," he says of the basic concept and name of the follow-up, Monty On The Run. But while Pete was keen to retain the style of Wanted, he was adamant that it shouldn't just be the same game with more screens. "I'd been disappointed with Jet Set Willy on that score," he says. "It lost a lot of detail when compared to Manic Miner, presumably to make the extra screens fit. I thought Manic Miner was the better game – more creative and fun."

With a mantra that adding screens at the cost of creativity was the wrong direction, Pete let his imagination drive Monty On The Run's development. The map, while still broadly linear, offered more scope for exploration. New features were added, including teleporters, a somersaulting Monty, and lifts – one of which abruptly crashes, crushing the hero. Additionally, although most of the game remained a traditional platformer, two sections were very different: one found Monty piloting a

jetpack; the other had him driving a C5. "The somersault was because I liked Impossible Mission on the C64 and wondered how it would look if I borrowed that for Monty," admits Pete. But other new map-oriented features were to force gamers to explore: "The 'porters are there because I'm a Trekkie, but I also wanted to create short cuts around the map, and areas you could only get into one way and then have to escape from. As for the broken lift, the first one was to discourage you from taking a perfectly good short cut later on. Did I mention I was cruel?"

Pete remembers when Ian bought a C5, explaining its presence: "I thought: 'Nice, a washing machine with wheels – I can use that!' I wanted to make it do wheelies, but couldn't fit the animations in, so I was stuck with it jumping." The jetpack, meanwhile, was a tribute to Ultimate. "Plus I thought strapping a jetpack to a mole would give you a fun new control method to get used to right in the middle of the game."

Monty On The Run sometimes frustrated – there were abrupt deaths and a pre-game 'Freedom Kit' that made areas impassable if you'd selected the

> ## The broken lift discouraged you from taking a short cut later on. Did I mention I was cruel?

wrong item. "I loved throwing spanners back then," chuckles Pete, noting that kit items were specifically chosen to appear useful. But the game was nonetheless far more playable and balanced than Wanted. "It's my favourite, because I feel I got almost everything right," affirms Pete. "It played exactly how I wanted, with just the right amount of humour."

CONVERSION CAPERS

This time, instead of a wildly different C64 version, it largely matched the Spectrum's, which Pete recalls was down to fan demands and sales figures: "The C64 game didn't do as well as the Spectrum release, so Ian decided to make the games more similar."

Also, Tony had left Gremlin, leaving Pete entirely in control of the game's direction, which was defined by the Spectrum's capabilities. Even so, the games didn't turn out identical, due to the C64's masterful Rob Hubbard soundtrack (see 'Number-one score') and some graphical additions, which Pete says were

MOLEY CHRISTMAS

THE LAST CLASSIC Monty Mole game appeared as a Christmas gift for readers of Your Sinclair. Issue 25's covermount was the exclusive Moley Christmas, boasting six single-screen locations into which the essence of Monty On The Run had been distilled. The game had an ever-decreasing energy meter, so demanded fast reactions and quick thinking to solve puzzles and progress through the Gremlin Graphics HQ, mastering and duplication plants, the M1, and the offices of Your Sinclair. The final location finds Monty delivering the mag to a newsagent while braving traffic on a busy road – a cute riff on Frogger.

"We did the game as a favour to Ian and kept it quite simple, because it was to be given away on a mag," recalls Pete. "But we certainly still wanted to

give value to the Monty Mole concept. The limited amount of time we had to develop the game was what led to more having to be done per screen. But that also meant we got more time to spend tweaking each location, even though the total development time was much less than for previous Monty Mole titles."

» Monty attempts to thumb a lift on the M1 in Moley Christmas.

» Why Monty can't settle on this sunny island at the start of Auf Wiedersehen Monty, we'll never know.

» Shark in the mine! Health and safety's going to have a field day.

"absolutely what I'd have chosen myself" and made the conversion "the better of the two *On The Runs*."

The conversion was done by Micro Projects Limited, set up by Jason Perkins (now director of Curve Studios), Tony Clarke and Mark Rogers. Jason remembers how Pete gave the team level designs and artwork, including printouts of Spectrum sprites, which were meticulously re-created on the C64, pixel by pixel. Data dumps were provided for background tile sets, but these needed amending, as Jason explains: "One advantage the C64 had over the Speccy was its 40-character display, compared to 32 on the Sinclair machine. This meant a straight port would have left blank areas at the side of the screen." The solution was mostly to centre the 32-character screens of the Spectrum version and fill the remaining space with additional artwork. "We also made a number of original objects – plant pots, wine bottles, traffic cones – that we could place anywhere on the screen to help disguise areas where the duplication of rows looked a bit obvious," he adds.

This approach might seem a bit 'bare minimum', but Jason remembers that Gremlin had given Micro Projects only four weeks to complete the conversion. Also, the decision to go with high-res Spectrum-style graphics came after experimentation.

"We tried using the C64's twin-pixel multicoloured mode, but it was difficult to get anything looking good, and the deadline meant redoing all of the art wasn't really an option," says Jason. Although the team had the C64's extra memory, it lacked time, and so ambitious plans to code a full-scrolling C5 section had to be abandoned. "But, to be honest, the Spectrum game was in such good shape when we got involved that it was a fairly straightforward development to get it up and running on the Commodore," considers Jason. "And we were very happy with the finished game, which was reflected in the reviews. We knew it was good."

MINI MOLE

Jason also worked on another *On The Run*, this time for the C16. "That could have been a great home computer, but Commodore released it without hardware sprites. And with the hardware flopping in the US, the company dumped it in Europe, meaning there were loads of units around," grumbles

Jason, who tells us that Commodore sent him, out of the blue, a free machine and disk drive, hoping he'd develop games for it. Ten C16 titles were sold to Gremlin by Micro Projects, but the company closed by the time the *On The Run* order arrived, and so Jason teamed with Terry Lloyd, who he remembers was "a big fan of the *Monty Mole* series and a great graphics artist and level designer".

With no hardware sprites and only 16K of RAM available, the game had to be stripped back, without losing its essence. "We established that we could only have four moving sprites on the screen at once, including Monty, so went to work filleting the existing levels and reducing the overall content," explains Jason. "We felt as long as we kept the main control system for Monty, maintained the frantic dodging of moving objects and kept the crushers, the conversion would be possible."

The team used the same trick as with the C64 version, stretching the edges of the map to fill the 40-character screen, although major redesigns perhaps made that less necessary; elsewhere, other than Monty, it was determined that all moving objects would only travel horizontally or vertically. "It was a simple process to pre-pixel-scroll the moving characters at the start of each screen," says Jason.

Although simpler than the other 8-bit versions, the C16 conversion was lauded by the press, with *Commodore User* awarding it a

NUMBER-ONE SCORE

THE C64 VERSION of *Monty On The Run* was an impressive, great-looking conversion, but it was Rob Hubbard's soundtrack – often considered the C64's best – that really set it apart from other games of the day. "It was based on a tape Gremlin sent me [of *Devil's Galop*] and they asked me to do something similar, so I expanded it as much as I could and added some additional parts," recalls Rob. "The solo in the middle was the result of a pitch-bend routine I'd added to the player, and everything was 6502 assembler and hard coded in '.byte' statements. I basically coded a guitar-type solo I worked out on a piano until it approximated what I heard in my head, as it were! There was also a third section at the end, which was a frenetic build-up to the climax, before the music looped. Add in the sound effects and the whole thing was less than 5KB!"

Screen Star and declaring it the "definitive C16 platform game". Jason remains happy with the conversion, which was completed on time, in just a few weeks. More importantly, it captured the key gameplay elements of the *Monty Mole* series: "The C16 community was happy as, for once, a publisher was taking the machine seriously and

at least, it rated highly, but *Zzap!64* slammed the C64 conversion, arguing that "even the most ardent of *Monty* fans is likely to be disappointed".

Pete isn't quick to defend his creation. "We overworked it," he admits. "We tried to do a lot more with *Auf*, and quite a lot of it worked, but there were not enough genuinely new ideas and they felt a bit forced." He recalls enjoying creating the map – "We got a lot more screens in, with a nice representation of real European locations" – and liked the sticky platforms that Monty could walk on, upside down. But the drunk mode? "Yeah, that was contrived… The entire game was a bit like how *Jet Set Willy* felt to me – it lost a bit of fun and originality in trying to add too much."

Still, Pete at least gave Monty some breakdancing lessons. "That was due to Ben [Daglish] doing such a popping tune.

outing so at odds with other *Monty Mole* games that it barely qualifies as an entry in the series ('*Impossamole*'), our bug-chomping chum has been silent for two decades, but Pete plans to resurrect the character. "I have two *Monty* games in my head. One is a full-on original, with all-new content. The other is a tribute to my favourite – *On The Run* – with tweaks to omit things that now irritate me," he reveals. Some changes are to be minor – ditching the cloud lift in the second screen, for example – but others should prove very interesting: "There will be achievements and different ways of playing the same map, including training maps and a multiplayer mode that might include *Thing On A Spring*-style slippers."

The game is slated for a 2012 release on iOS (see **harrap.net** for progress reports), and Pete's experimenting with control methods to ensure that Apple's buttonless device doesn't lead to myriad dead moles: "Imagine touching Monty and sketching where he goes, tapping to make him jump. Another method involves gesture-based swipes and flicks. Both are intended to be intuitive." And, as you might expect, this is a labour of love for the veteran games designer: "I'm doing it because I enjoy it. It won't cost much, and hopefully it'll bring a smile to players, old and new. My grandson keeps asking when it'll be ready, and he's only four!"

To close, we ask why Pete thinks Monty's so fondly remembered, especially considering how frustrating some of the screens in his games are. "I hope it's because they were fun to play," he begins, "but, for me, it's because where else can you do somersaults as a fat, one-eyed mole with a coal fixation? Now, where's me jetpack?"

> » *Monty On The Run* was one of the best games in the series, and remains an entertaining platformer.

> » And we always thought the Eiffel Tower was taller than a dozen upright moles…

"Where else can you do somersaults as a fat, one-eyed mole with a coal fixation?"

developing a well-respected franchise for it, rather than releasing a pile of old crap to make a quick buck."

GOODBYE, MONTY
Back on the Spectrum, the final commercially released *Monty Mole* title Pete worked on was *Auf Wiedersehen Monty,* presumably intended, given its title, to be the character's swan song. The game took the basic blueprint from *Monty On The Run*, but tasked Monty with exploring Europe, his aim being to earn enough cash to buy an island. This was achieved by picking up money carelessly left lying about, along with pilfering objects and selling them on. The opaque puzzles combined with irritating new features – an annoying in-game arcade sequence where you attack a biplane with your craft's propellers; control-reversing wine pick-ups; icy areas where Monty randomly slides about – resulted in a game that lost the purity of its predecessor. On the Spectrum,

I looked at the graphics we'd done and thought they could be strung together into a dance. When I tried that, I couldn't stop laughing, so they stayed." He says game development can be like that, and you should never be afraid to deviate from the plan and try something for the fun of it. "One reason I stopped coding ten years ago was the restrictions placed on us by 'producers', one being 'thou shalt not deviate from the schedule'." Should *Auf Wiedersehen Monty* have perhaps had more deviations? "Well, maybe more time. It's not a game too far, but a game too early," considers Pete. "It needed longer before we created it, for it to be more original. But then I also stand by the principle that appears as true for games as films: never watch the third of a trilogy, because all the best stuff was used in the first two!"

IMOLE
Bar an appearance on a covermount (see '*Moley Christmas*') and a Core-designed

IMPOSSAMOLE

GREMLIN'S FINAL CRACK at a *Monty Mole* game arrived in 1990. Created by Core Design, *Impossamole* had the odd nod to earlier games in the series – crushers, a mine cart in the first level – but the gameplay was far closer in feel to Core's own *Rick Dangerous*. Also, Monty had the ability to kick his foes' faces off and was, at times, armed to the teeth. Monty with a bazooka is a far cry from an insectivore scrabbling around for a bit of coal to keep warm.

The result was a title that divided opinion, between those who enjoyed the lush graphics and challenge and those who didn't care for its sluggishness, excessive difficulty and lack of innovation. Pete wasn't impressed by what he saw: "I never played it

and didn't like the idea." Still, he admits that "there might be a cape power-up in the iOS *Monty On The Run* multiplayer maps".

> » Monty forlornly looks on in *Impossamole,* the mine cart reminding him of better times.

BATTY

THE BEST FREEBIE EVER?

» **PUBLISHER** HIT-PAK
» **RELEASED:** 1987
» **GENRE:** PUZZLE
» **FEATURED HARDWARE:** ZX SPECTRUM
» **EXPECT TO PAY:** A FEW QUID

HISTORY

Imagine picking up the latest console magazine and finding the latest AAA hit attached to it. Believe it or not, that's exactly what happened one evening in 1987 when I wandered down to my local newsagents with my best mate, Paul, and picked up the latest issue of Your Sinclair. The game in question was called *Batty*, and to Paul and myself it appeared to be little more than a bog-standard clone of Imagine's recently released *Arkanoid* – how wrong we were…

While *Batty* looked and played similarly to the classic coin-op hit, it boasted plenty of smart extras that elevated it above Imagine's full-priced effort. The actual visuals were big bold and chunky and very colourful. The game's many aliens actually retaliated by dropping bombs on you and there were plenty of cool power-ups that ranged from extending the size of your bat, to a handy set of jets that would conveniently boost you to the next, tougher level.

For all its solid level design, bold visuals and gripping gameplay, there was one element of *Batty* that lifted it above all other similar games and made it untouchable – the amazing simultaneous two-player mode.

Rather than take turns, each player simply guarded one half of the screen and shared a set number of lives between them. Whilst this cleverly stopped you from getting your bats mixed up (although it limited the amount of power-ups you could collect) it didn't help the poor sod who was unfortunate enough to let *Batty*'s ball slip past his defences, as he normally got a mouthful of abuse from his team-mate.

Batty didn't stay exclusive for very long as it eventually appeared on a compilation, and at a budget price. While it lasted though, lucky Spectrum owners were treated to something very special indeed. And to think Elite turned down the opportunity to publish it…
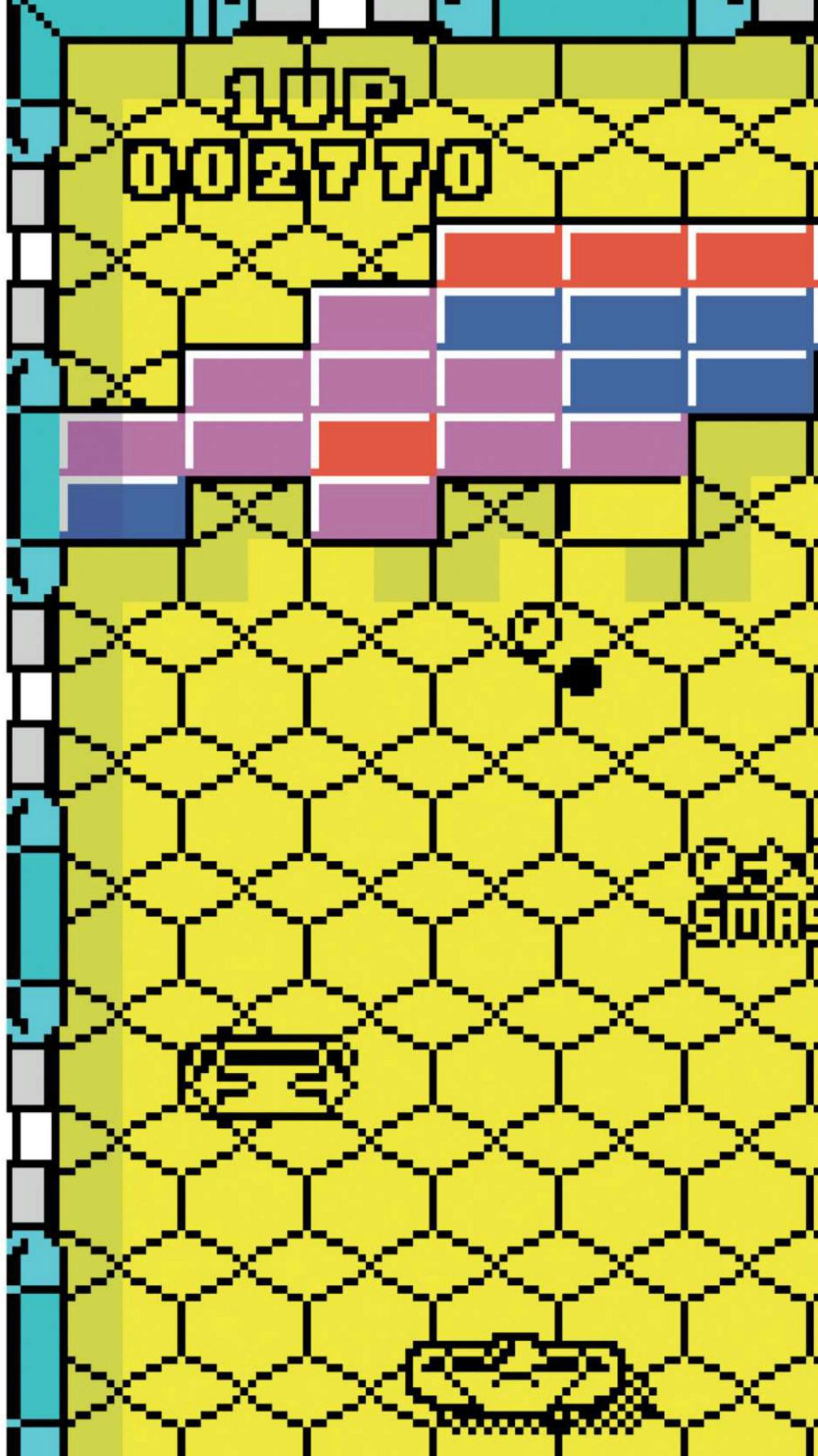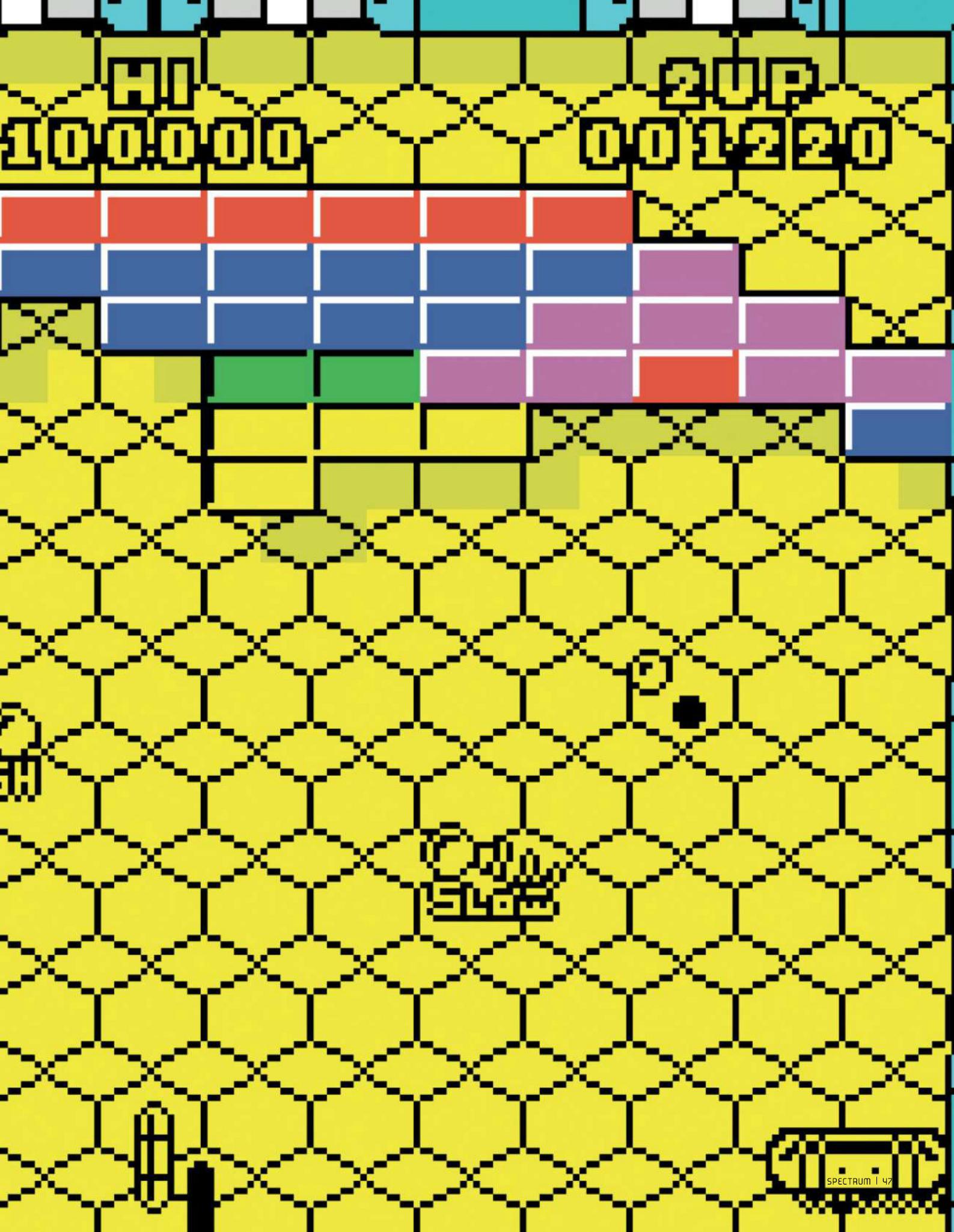
THE MAKING OF…
TURBO ESPRIT

Before Grand Theft Auto III there was Driver, and before that there was Turbo Esprit, the 8-bit classic that skidded onto Sinclair's Spectrum more than 26 years ago. Martyn Carroll talks to Durell's Robert White and Mike Richardson about the game that has spawned many a monster hit.

IN THE KNOW
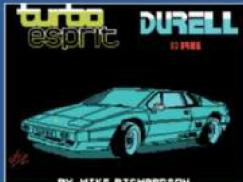
» **PUBLISHER:** DURELL SOFTWARE
» **DEVELOPER:** IN-HOUSE
» **RELEASED:** 1986
» **GENRE:** DRIVING/STRATEGY
» **EXPECT TO PAY:** A FEW QUID

Turbo Esprit **is not a typical driving game. There's no clock, track or chequered flag. If that sounds plain wrong then maybe you were expecting to read about** Lotus Esprit Turbo Challenge**, Gremlin's similar-sounding Amiga racer that was ported to the Spectrum and other 8-bits.** The games may share a Lotus license but they couldn't be more different. Unlike the Gremlin game, Turbo Esprit was not born from the almost impossible desire to replicate seat-of-your-pants racing on the Spectrum. If anything, Durell founder Robert White was aiming even higher.

"Fundamentally I wanted to create a game where you could drive through a city in real time," he says, before revealing that the initial inspiration for the game was somewhat, erm, sterile. "Prior to starting Durell I worked for the Oxford Regional Health Authority where we did hospital design. We used an integrated model in which you inputted design data and it would generate 3D maps of hospital wards. The idea was that you mapped the data once and then you could visualise it in different ways, and this was where the basic idea for Turbo Esprit came from."

TAKING THE WHEEL

With the concept in place, Robert handed control to in-house programmer Mike Richardson. Mike joined Durell in 1984 when he was 26-years-old and was responsible for several of the company's early hits, including Harrier Attack for the CPC and Scuba Dive

» Mike (left) looks on as Robert demos software on his trusty Oric-1 that he bought when he first founded Durell.

» Mike relaxing at home, contemplating the final few weeks of work on *Harrier Attack II*.

"FUNDAMENTALLY I WANTED TO CREATE A GAME WHERE YOU COULD DRIVE THROUGH A CITY IN REAL TIME" ROBERT WHITE
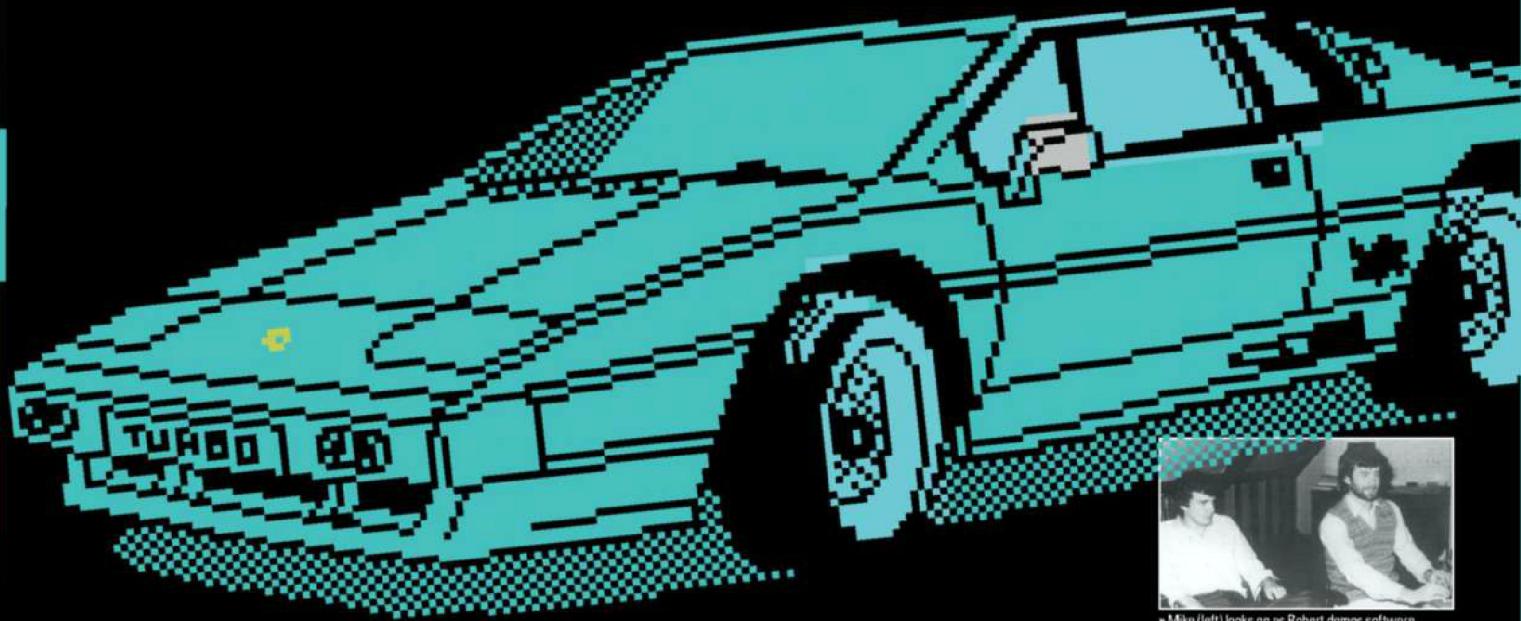
for the Spectrum. "I had a huge amount of confidence in Mike," reveals Robert. "He was such a good programmer that I could outline an idea to him and he would take it from there. He added all the fantastic little bits and pieces like people walking down the street, pedestrian crossings, traffic lights and things like that. As with everything he did it turned out brilliantly."

Robert is full of praise for Mike's obvious talent but the man himself is surprisingly self-effacing. His softly spoken recollections of *Turbo Esprit*'s development suggest an almost workmanlike approach in which the game slowly but surely came together. "*Turbo Esprit* was the game I spent the longest on," he says. "It took about ten months in total to complete, but I was never under any pressure to rush to finish the game. I felt that Robert trusted me to do a good job in reasonable time and I guess there wasn't a huge marketing department gearing up for a particular date like there often is these days."

Mike spent the first few months developing the 3D system that would give

Speccy owners the impression of being behind the wheel of a turbo-charged sports car. He'd already created one 3D-style game – the helicopter sim *Combat Lynx* – but having to build a large inhabited city, with roads running north, south, east and west, was an entirely different proposition. "It was a bit of a feat," he says. "All of the 3D was done from a lookup table, so there was no calculation of points in 3D at all. Any point on a building always occurred at a certain line in the lookup table rather than by calculation. Obviously if you tried to calculate 3D on a Spectrum you'd be there all day."

Mike succeeded in getting the game running at a decent pace, but one particularly neat feature had to be sacrificed

for speed's sake. "The display original had a rear-view mirror which I had to scrap. It wasn't difficult to do but it meant rendering the scene twice which would have slowed everything down too much." The keen-eyed amongst you may like to note that the rear-view mirror can be seen in the screenshots used on the game's original packaging and advertising.

JUST SAY NO
With the technical groundwork completed Mike began to piece the gameplay together. The first consideration was the back-story and this was shaped by an all-powerful influence – the boss's wife. "She was against violence in games so we had to be careful with blood and stuff," he smiles. "There

BOX OF TRICKS
To help speed up the development process, Mike shunned the Spectrum's feeble keyboard and tape-save system in favour of a more practical alternative. "I bought an Epson CP/M machine which had two 5.25in floppy drives and 256Kb of RAM – 64Kb was used for the operating system and the rest formed a handy RAM drive. I upgraded the memory to 1Mb by plugging in different RAM chips, modified the motherboard and slightly re-programming the OS. Then I soldered together a cable to connect the Epson printer port to an add-on parallel interface on the Spectrum. I could work on the Epson, using a proper keyboard and the RAM drive for compilation, then download the compiled code to the Spectrum in seconds. Inside the case it all looked a bit Heath Robinson but it worked amazingly well."

» As with many Durrel games, the Spectrum version was superb, and much better than its 8-bit peers.
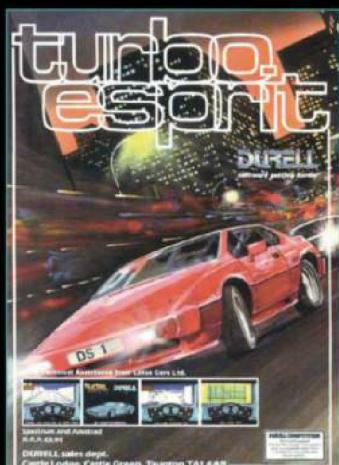
» Squint at the screenshots on this ad and you'll see the rear-view mirror that had to be scrapped during development.

THE MAKING OF…
TURBO ESPRIT

DEVELOPER HIGHLIGHTS

HARRIER ATTACK
SYSTEMS: ORIC-1, SPECTRUM, CPC, C64
YEAR: 1983

SABOTEUR
SYSTEMS: SPECTRUM, CPC, C64, C16, PLUS4
YEAR: 1986

THANATOS
SYSTEMS: SPECTRUM, CPC, C64
YEAR: 1986

» You can stop the no-good drug dealers by either shooting their vehicle or ramming them into submission.

» The mission is complete when the armoured car submits, but the fight against drugs never ends. There are more cities to cleanse, more suppliers to stop…

» The Spectrum version features a sparse menu system. "I'm not interested in fancy front-ends," says Mike.

was some discussion in the office as to what the game could be about and we arrived at drug dealing and trying to put a lid on it, as it where. You were a good guy, which went along with the non-violent thing. There was no blood – it wasn't ugly in that respect."

The 007 comparisons are obvious, as you play a secret agent driving a Lotus

» The Big 4 compilation marked the first appearance of *Turbo Esprit* on the C64. Celebrations were understandably muted.

Esprit, complete with onboard machine guns, but there's much more to the game than speeding around one of the four cities shooting smugglers. Robert refers to each city as a chessboard and this is a fitting analogy as you must watch the map and plan your strategy while the players make their move. Mike provides a programmer's commentary: "The idea is to park up around the corner from where the drugs exchange will occur. The is usually near the city centre – you can find out the precise position by observing the behaviour of the four smugglers' cars as they will circle the drop-point waiting for the armoured drug car to arrive. If you're parked too close to the drop-point the exchange doesn't take place, so you must watch the map, wait for the exchange to happen, see which way the cars are heading for a second and then give chase."

To score maximum points you must stop each of the four smugglers from escaping with the drugs and then apprehend the armoured car before it too leaves the city. It's significant that the gameplay does not pause when you view the city map, as this allows the action to play out in real time. This is particularly effective when you're closing in on a target, as you must keep glancing at the map as you tear through the city. Taking your eyes off the road even for a split second could be deadly, with you running red lights, slamming into oncoming traffic or mowing down hapless pedestrians attempting to cross the road.

The game does not turn a blind eye to dangerous driving – there's a penalty meter that clocks each of your traffic offences. Cause enough mayhem and you're invited

» The map not only shows you the position of enemy cars but also highlights petrol stations.

to enter your name in the hall of shame, and it goes without saying that this was an attractive proposition to many gamers; rounding up bad guys was fun but killing innocents was fantastic! Mike reveals that this was no accident: "I planned it because that's the sort of stuff I personally liked to do best. To actually attempt the mission takes effort and brain power, and some people don't like doing that, so I added a few extra things to see and do." We assume that the boss's wife never found out about this gruesome little sideshow.

Surprisingly, one of the last things to be added was the Lotus branding. Originally you were driving a generic set of wheels, but late on in the development one of Durell's advertisers had the bright idea of approaching Lotus. "The Lotus link came right at the end," explains Robert. "We had an advertising agency based in Norwich, not far from the Lotus factory. We asked for permission to use its name and Lotus agreed, as it was free advertising for its

» With so many bad drivers around those little men up ladders never stood a chance.

"TO ACTUALLY ATTEMPT THE MISSION TAKES EFFORT AND BRAIN POWER, AND SOME PEOPLE DON'T LIKE DOING THAT, SO I ADDED A FEW EXTRA THINGS TO SEE AND DO" MIKE RICHARDSON

flagship model. It wasn't a money deal or anything like that – things were a lot more innocent back then."

Rather than slap the Lotus brand on and be done with it, Mike spent time updating the game graphics to fit. "We went and visited Lotus," he recalls. "It wasn't of any technical use but we did come back with some pictures of Lotus cars. The car on the outside was certainly modelled on an Esprit, or as much as I could do with a few pixels. The dashboard in the game was hardly a perfect replica," he laughs, as modest as ever. Closer inspection reveals that the in-game dashboard is spookily similar to an Eighties model Esprit, with all the gauges in the right places and the speedometer registering the correct top speed of the real car. The devil's in the detail, as they say.

PAVING THE WAY
Thanks to its expansive city setting, genre-mashing gameplay and open structure, *Turbo Esprit* is widely acknowledged as a forerunner to games like *Driver* and *Grand Theft Auto*. It's ironic then that its far-reaching influence is completely lost on Mike who is no longer an avid gamer. "I haven't played a game properly since *Tomb Raider* on the PSone about 10 years ago," he admits to us. "I just don't find myself with any spare time these days."

Robert, on the other hand, is more aware of the game's impact, even though Durell pulled out of the games market 20 years ago (the company now develops database software). He has no regrets about not capitalising on *Turbo Esprit* however, merely pointing out that the industry has always gorged on itself to survive. "With *Turbo Esprit* I think we were the first to come up with the idea of mapping a city and then driving through it. But then our first game, *Harrier Attack*, was just a side-on shooter like *Scramble*. We sold around 250,000 copies of *Harrier Attack* and it generated most of the development money for the next three years, so games like *Turbo Esprit* were all thanks to *Harrier Attack*, which was

basically a rip-off of someone else's idea. I guess that's the way it works."

Turbo Esprit didn't come close to matching the success of *Harrier Attack* – Robert estimates that it sold a respectable 50,000 copies, although the total would be higher if you included the game's inclusion on compilations and its later re-release on Elite Software's budget label. Debuting in Spring 1986, the original Spectrum release was the best selling version, thanks to excellent reviews from gaming mags (it earned a Your Sinclair Megagame, a Sinclair User Classic and was just two per cent shy of a coveted Crash Smash). A passable Amstrad CPC port followed in the Summer, while the C64 version spluttered onto the scene at Christmas as part of the *Durell Big 4* compilation alongside *Saboteur*, *Combat Lynx* and *Critical Mass*. It's hardly surprisingly that the C64 port was not granted a standalone release as it's a real car crash of a game.

We wrapped things up by asking Mike if the Spectrum hardware simply lent itself better to 3D-style games like *Turbo Esprit*, and for the first time in our company he sings his own praises. "I'd like to think it was better on the Spectrum because of my expertise, if that's okay with you."

That's perfectly okay with us Mike.

TURBO ESPRIT 2?
There was no talk of a *Turbo Esprit* sequel in the Eighties – Mike preferred to work on original projects like *Thanatos* and *Sigma Seven* – but there's a chance we may yet see some kind of follow-up. Mike developed a PC sequel to *Harrier Attack*, working under the Durell Games banner. A quick visit to the website (www.durellgames.com) reveals lots of information about *Harrier Attack II*, and there's a poll where visitors can vote for which old Durell game Mike should update next. At present *Turbo Esprit* is easily topping the poll with almost twice as many votes as the game in second place, *Scuba Dive*, so if the voting continues in this way a sequel could very well be on the cards. Sadly, *Harrier Attack II* wasn't a success, so we might not ever see a sequel.

» Seven cars on screen at once! That's more that you see in the *Grand Theft Auto* games.

» The exchange has been made and you're stuck waiting for some old fool to cross the road!

spectrum games

OF ALL TIME

SINCLAIR'S SPECTRUM MAY HAVE BEEN SMALL IN SIZE, BUT IT WAS BIG IN HEART, BOASTING A MASSIVE NUMBER OF GENUINELY FANTASTIC GAMES THAT STILL PLAY BRILLIANTLY TODAY. WE REVEAL THE FAN FAVOURITES THAT EVERY SERIOUS SPECTRUM OWNER SHOULD GET A CHANCE TO EXPERIENCE
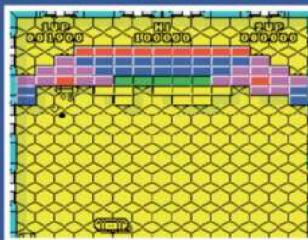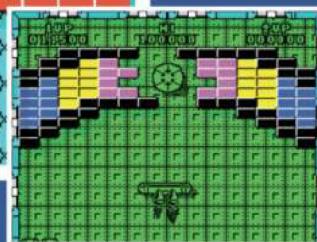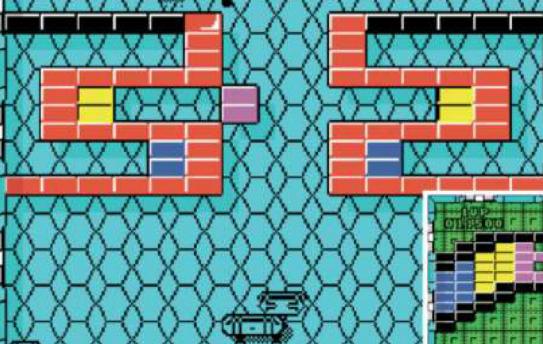
Batty

■ **Year:** 1987

■ **Publisher:** Hit Pak

25 *Arkanoid* may have received an extremely polished conversion on the humble ZX Spectrum, but it couldn't compete with this monumental epic from Hit Pak.

Each level has been beautifully constructed, there are huge amounts of power-ups that include a bog-standard laser, your typical extender and a handy level warp, and there are also a variety of different options, including a wonderful co-op mode that effectively splits the bottom of the screen into two parts. You monitor one side of the screen, while a friend manages the other.

Add in some fiendishly well-put-together levels, some bold, cartoon-like visuals and some hellishly addictive gameplay and the end result is one of the best *Breakout* clones of all time. The fact that it was initially given away for free with *Your Sinclair* is absolutely staggering.

Cybernoid

■ **Year:** 1988

■ **Publisher:** Hewson Consultants

24 Raffaele Cecco's wonderful *Cybernoid* harks back to the good old days when game testing was solely the responsibility of the developer, shoot-'em-ups were one of the most popular genres around and games required pixel-perfect timing in order to proceed.

Cybernoid is possibly the toughest game in our top 25**.** It requires insane levels of concentration, dextrous keyboard and joystick skills and the patience of a saint. Despite this, *Cybernoid* always pulls us back for one more go and remains so polished you can almost see your face in it. What makes it so essential is its jaw-droppingly vibrant visuals, intricately designed levels and spot-on controls (it has the sort of pixel-perfect precision normally seen in platformers). It's not for everyone, but it's an experience that shouldn't be missed under any circumstances.

Nebulus

■ **Year:** 1988

■ **Publisher:** Hewson Consultants

23 There's a veritable deluge of brilliant platformers and puzzle games available on the ZX Spectrum, but very rarely are these two rather distinct genres successfully combined.

Nebulus – which is also known as *Tower Toppler* or *Castelian* depending on whereabouts you live – is a wonderful example of this combination of genres and sees you guiding a cute bipedal alien named Pogo to the top of several towers. Once at the top, these towers must then be detonated.

Working against a tight time limit, you're required to use lifts and handy doorways to zip back and forth through the cleverly rotating towers – a graphical feat that still manages to impress today – in order to avoid the tower's numerous enemies. As challenging to play as it is gorgeous to look at.

Fantasy World Dizzy

■ **Year:** 1989

■ **Publisher:** Codemasters

22 Ever since Philip and Andrew Oliver's ovoid creation appeared in the *Ultimate Cartoon Adventure* we've always had a soft spot for Dizzy. *Fantasy World Dizzy* is not only Dizzy's greatest 8-bit adventure, it's also the very last 8-bit *Dizzy* adventure from the Oliver twins – development duties for the game's sequels were handed over to Big Red Software.

The brothers certainly left on a high though. *Fantasy World Dizzy* is a huge, beautifully crafted adventure that features well-thought-out, and far better-balanced, puzzles, a new *Magic Knight*-style interface, the introduction of the Yolkfolk and a surprising amount of humour.

You may not be able to make an omelette without breaking a few eggs, but by not damaging their mascot the Oliver twins certainly proved that it was entirely possible to create an excellent arcade adventure.

> "CYBERNOID IS POSSIBLY THE TOUGHEST GAME IN OUR LIST, REQUIRING INSANE CONCENTRATION, DEXTROUS JOYSTICK SKILLS AND THE PATIENCE OF A SAINT"

spectrum games
OF ALL TIME

RoboCop

■ **Year:** 1989

■ **Publisher:** Ocean

21 After churning out cheap-and-cheerful licensed dross like *Transformers, Knight Rider* and *Highlander,* Ocean turned a corner and began releasing quality movie tie-ins.

RoboCop remains one of the best examples, and by using the template of the incoming Data East blaster and juxtaposing the action with clever mini-games, such as rescuing hostages and putting face IDs together, Ocean created a tie-in that few other developers (Ocean included) were able to improve upon.

The mostly monochrome visuals do a great job of capturing the spirit of the original film, and while the action is a little more pedestrian than we remember, it nevertheless remains great fun to play. Film and TV licences were ten a penny on the 8-bit computers and it's a testament to both Ocean's development skills and RoboCop's enjoyable gameplay that it's the only example to make our list.
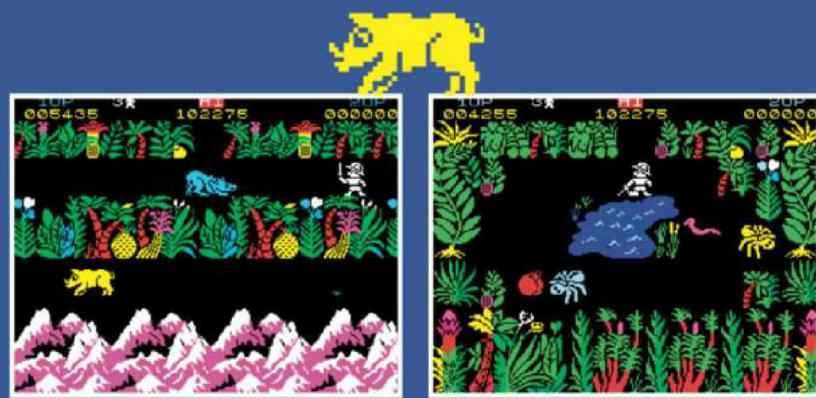
Sabre Wulf

■ **Year:** 1984

■ **Publisher:** Ultimate: Play the Game

20 We've been playing Ultimate's brilliant *Sabre Wulf* for 28 years now and we still haven't been able to collect all four pieces of that sodding amulet. Not to worry, though, it simply allows us to appreciate what a staggering game Sabreman's first outing actually is.

Taking place over an absolutely humongous 256 screens, you're required to do nothing more than explore the vast and varied jungle to recover the four aforementioned missing pieces of a precious amulet. Of course, as you would probably expect, this is much easier said than done, and Sabreman has to contend with some rather angry natives, the titular Sabre Wulf and all manner of horrible jungle critters before he's able to complete his lofty goal.

With its gorgeous visuals, fast-paced gameplay and massive environment, *Sabre Wulf* is typical of the care and attention to detail that the Stamper brothers put into all of their early Spectrum games, so don't be too surprised if you see a few more Ultimate games before our top 25 Spectrum games feature is finally complete.
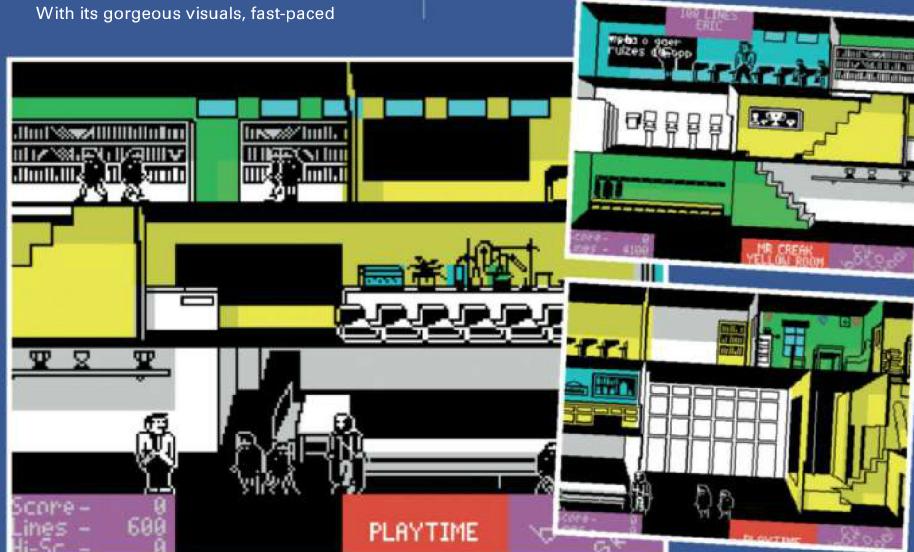
Back To Skool

■ **Year:** 1985

■ **Publisher:** Microsphere

19 After wowing Spectrum owners with the brilliant *Skool Daze,* David Reidy and Keith Warrington returned a year later with a sequel that was even more ambitious.

You were once again cast in the shorts and blazer of the mischievous Erik, but this time he was able to get up to even more mayhem and mischief. A new girl's school increased the playing area. Erik also had access to stink bombs and water pistols as well as his trusty catapult now, while it was even possible for the little scamp to catch mice and frogs (of which the former could be released in the girl's school). Other improvements to the original included the ability to ride a bike and the handy option of opening desks in order to discover what was hiding inside them.

Back To Skool still proved hard going for those used to being hand led through their games, but it still managed a level of interactivity that few other Spectrum titles have ever been able to match.

Ant Attack

■ **Year:** 1983

■ **Publisher:** Quicksilva

18

Predating *It Came From The Desert* by a good six years, Sandy White's *Ant Attack* remains a game of stark beauty and cunning gameplay. Taking control of either a young girl or a young boy – don't worry they control in exactly the same way – your task is to venture into the abstract walled city of Antescher in search of your missing beau.

While the first level is relatively easy – a quick hop, step and a jump over the wall and you're practically done – later stages are anything but, and it's here where White's true genius becomes apparent. Initially coming across as little more than a pile of hastily assembled Lego blocks, the city of Antescher soon reveals itself to be a deadly maze, where ants can jump out at you at any time.

Granted, you've got 20 grenades to take them on with, but the claustrophobia quickly sets in, and later levels became a frightening race against time as your ragged nerves deal with five or six ants, a missing loved one and a constantly ticking timer. Truly terrifying.

The Lords Of Midnight

■ **Year:** 1984

■ **Publisher:** Beyond Software

17

You'll never forget the first time you played Mike Singleton's *The Lords Of Midnight*. With its lavish packaging, accompanying overlay card and distinct gameplay, it proved that there was more to the Spectrum than simple platformers and arcade conversions, and it remains a very atmospheric title without equal.

What impresses most about *The Lords Of Midnight* is its flexibility. While the main objective is to lead your four adventurers on a quest to destroy the fabled Ice Crown, it's possible to forget the task completely and just concentrate on amassing a huge army. If that doesn't take your fancy you can just as easily combine the two into an epic adventure that few other 8-bit games could match.

Massive in scale – the pseudo-3D graphics display over 31,000 different views – and rich in atmosphere, *The Lords Of Midnight* is a Spectrum title that everyone should experience. If you're familiar with it, go back and play through it again. A true classic.
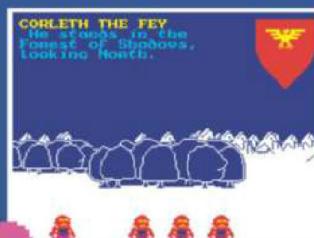
Turbo Esprit

■ **Year:** 1986

■ **Publisher:** Durrell

16

Turbo Esprit, not to be confused with the Gremlin game with a very similar name, is a criminally great sandbox game from the makers of *Harrier Attack*.

This sublime little gem had you taking to the mean streets of Wellington, Gamesborough, Romford and Minster and indulging in a spot of covert stakeout-type drug busting.

Boasting bustling cities crammed with Durell's signature ant-looking denizens, staggering AI and a novel feeling of freedom, *Turbo Esprit* would later go on to become a major influence on Rockstar's *Grand Theft Auto* series.

And while the game probably would have benefited from a slightly punchier title, such as '*Turbo Elite Cokehead Apprehender*', playing the game was still like being in your own episode of *Miami Vice*.

Quite simply there's nothing quite like it on the Speccy and so, for that reason, it's in.
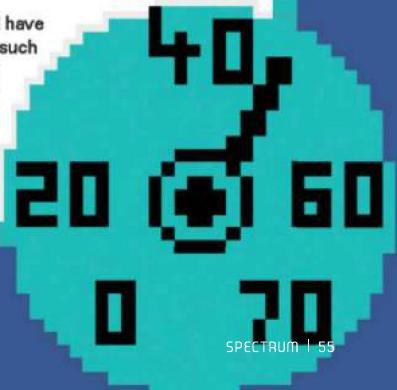
Jet Set Willy

■ **Year:** 1984

■ **Publisher:** Software Projects

15

We've all been there, the morning after the night before. In this case, a house party, probably the outcome of a careless exchange on a popular friendship website, has meant that Willy's mansion, after being packed to the rafters with beer guzzlers and winos, has now been alcoholically decimated.

And to make matters worse for Willy, his lardy housekeeper has put her stomping foot down and is preventing poor Willy from going to bed, recharging the old batteries and promising to do something about the mess in the morning.

Matthew Smith's second house of pain was a sublime and simple platforming jaunt that built on the brilliance of *Manic Miner.*

Jet Set Willy was released into a swathe of high expectancy, both by gamers, preying that it would be as good, if not better, than the original, and by its publisher, who was hoping to make a shed load of cash – which was the reason that the game came packed with an annoying copy protection card.

Jet Set Willy's quirky and colourful palette, warped imagery and surrealist humour captured perfectly the irreverence of videogames of the time. And as it was built with the Spectrum in mind, it is widely considered to house the finest version of the game.
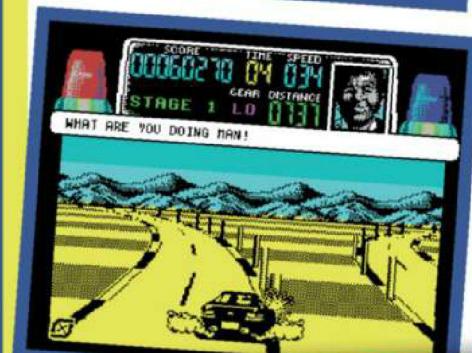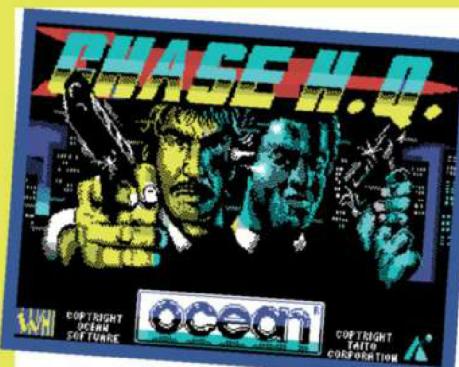
Chase HQ

■ **Year:** 1988

■ **Publisher:** Taito

14

Taito's wonderful pursuit racer still gets a lot of play in the **Retro Gamer** offices. While we would lovingly hand the best conversion accolade to the Amstrad for its colourful finesse, the Spectrum's offering does feel fractionally more fluid, especially when you're belting across *Chase HQ*'s quasi-3D tarmac, screaming, "Let's go Mr Driver!"

The Speccy has been blessed with some truly brilliant racing games in its lifetime, but *Chase HQ* showcases a real eye for detail and technical ability from Ocean. An almost impractical chasm sat between the arcade machine and the ZX Spectrum, and yet, somehow, Ocean managed to rev the Porsche 928 to pretty much clunking-out point before flicking a nitro switch and jumping that gorge magnificently.

Chase HQ was blessed with an almost perfect home arcade port – easily up there with the likes of *Sega Rally* and *Buggy Boy*. It is the quintessential Spectrum racing game and was massively popular with Speccy owners back in the game's heyday… so popular, in fact, that *Your Sinclair* readers went on to vote it the best Spectrum game of all time.

> **"JET SET WILLY'S QUIRKY AND COLOURFUL PALETTE, WARPED IMAGERY AND HUMOUR CAPTURED THE IRREVERENCE OF VIDEOGAMES OF THE TIME"**

Chuckie Egg

■ **Year:** 1984

■ **Publisher:** A&F Software

13

Nigel Alderton's classic platformer is so ingrained in the minds of BBC owners that it's easy to forget it started off life as a Spectrum title (see **RG 40** for details). Based on some of Alderton's favourite coin-ops, such as *Donkey Kong* and *Space Panic*, *Chuckie Egg* is an insanely fast platformer that sees hero Hen House Harry going up and down ladders and leaping across platforms in search of eggs, while avoiding the angry hens.

Unlike other platformers of the time, which were more methodical and slower-paced, '*Eggy Kong*' (as it was originally known) dashed along at a cracking pace and really felt like it had escaped from your local arcade. It may have only had eight levels, but they were fiendishly designed and it wasn't until several loops had passed and the huge caged duck had been released that you began to appreciate just how expertly crafted they were.

It's not one of the Spectrum's most original platformers, but there's no denying that it's one of the most polished. A classic in every sense.
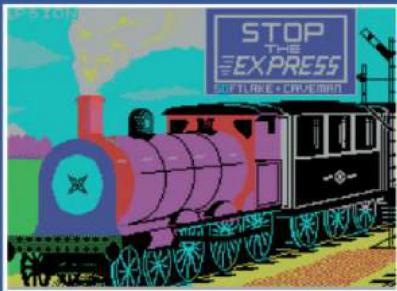
Stop The Express

■ **Year:** 1983

■ **Publisher:** Sinclair Research Ltd

12 If we're honest, 12th seems a little meagre for this sublime Hudson title, but the reasoning is this: there really is an abundance of top-notch games on the Spectrum.

Chunky arcade-style graphics, quirky premise and compulsive playability sum up all the factors that make a classic retro game, and *Stop The Express* succeeds in ticking all those boxes.

Playing a shaggy-haired blonde chap in green pyjamas, it was your job to stop a train by fighting your way from one end to the other. Trying to put a leaf on your track were 'train gangsters' who could be felled by grabbing and kicking 'snake birds' at them. Brilliant.

After you'd traversed the first ten carriages from the rooftops, the game put you inside the train, where you had to avoid more dagger throwers and the ectoplasm of trundling ghosts.

Stop The Express is a simple and beautiful Speccy game. We believe a "Congraturation! You sucsess!" is firmly in order here.

Starquake

■ **Year:** 1985

■ **Publisher:** Bubble Bus

10 Stephen Crow's *Starquake* may share many similarities with a typical Ultimate release – brilliantly drawn visuals, engaging gameplay, strong main character – but extended play soon reveals it to be something quite different.

Essentially a cross between a shoot-'em-up, platformer and an adventure game, *Starquake* is a fun title that casts you in the form of BLOB (Bio-Logically Operated Being) who must find the missing parts of his crashed spaceship.

Fortunately, in order to make traversing the huge – 512 screens – planet easier, BLOB has a number of handy abilities. As well as being incredibly fast – the game pelts along at a cracking pace – he can create platforms, which last for a limited time, to reach out of the way areas, or he can simply jump on to a nearby hoverboard (although this makes it impossible for him to pick up items). There are even handy teleports to use, therefore making the gigantic world far more manageable.

With its beautifully drawn visuals, clever mishmash of genres and addictive gameplay, *Starquake* manages to deliver an experience that's quite unlike any other Spectrum release. Visit the World Of Spectrum website today to discover its magic for yourself.

TLL

■ **Year:** 1984

■ **Publisher:** Vortex Software

11 If you're the sort of Spectrum owner who's constantly hounded by C64 and Amstrad owners, show them Vortex Software's amazing *TLL* and watch them shut up faster than a superglued clam.

Created by Costa '*Deflektor*' Panayi, *Tornado Low Level* (to give it its full title) is an insanely slick looking title that features some of the smoothest and flicker-free scrolling you're ever likely to see on Sir Clive's humble 8-bit.

Taking control of a Tornado jet, you're simply required to fly around and participate in strategically placed missile strikes. There are no actual enemies and nothing to shoot at; it's just your fighter, a constantly dropping fuel supply and plenty of hazards – trees, houses, telephone wires – to avoid.

It sounds simple, boring even, but this couldn't be further from the truth. *TLL* requires a cool nerve, insane gameplay skills and a hefty pair of balls – you have to fly dangerously close to the ground to bomb your targets – and is not for the faint-hearted.

Those feeling the need for speed, however, will discover a title that's not only graphically amazing, but, more importantly, has the actual gameplay to back it up. Stunning. Simply stunning.

spectrum games

The Great Escape

■ **Year:** 1986

■ **Publisher:** Ocean

9 This hazy movie tie-in by Denton Design proved to be a very surprising hit for Ocean when it was released on the Spectrum. *The Great Escape* plonked the player into a peculiar monochrome ritual of breakfast, roll calls and wily absconding.

It was a brilliantly designed game that brimmed with a stellar cast of innovative ideas – it offered various different escape routes from the camp and your hero would automatically adhere to the camp's routines if you left him to his own devices for too long. *The Great Escape* proved to be a trailblazing Spectrum classic that benefited from the computer's small colour palette by coating the game in a tense cheer-destroying bleakness.

It also helped to give movie tie-ins some credibility, dragging the much-reviled genre out of solitary confinement and proving that it could fit in with the rest of the law-abiding game genres that existed at that time.
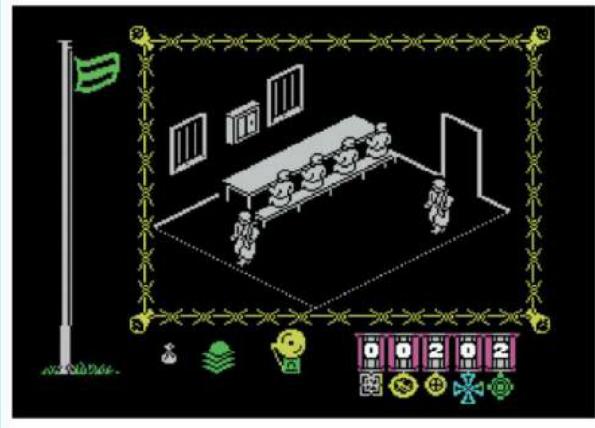
R-Type

■ **Year:** 1988

■ **Publisher:** Electric Dreams

8 It's been 24 years now and we still can't work out how Bob Pape and Mark Jones pulled off this stunning conversion (if you're reading guys, we'd love to hear from you).

Anyway, *R-Type* on the Spectrum is a thing of beauty and is easily the best arcade conversion to grace the machine. The graphics are incredible, with huge, brightly coloured sprites, very little colour clash, insanely smooth scrolling and amazing looking bosses. Level layout throughout is virtually identical, with many classic scenes from the arcade original being instantly recognisable, making for a wonderfully authentic experience.

It wasn't just *R-Type*'s gob-smacking visuals that impressed, as its gameplay was just as finely honed. The force might not have been as responsive as its arcade parent, but that's our only niggle, everything else – enemy placement, movement and structure – is near identical, meaning that many of the tricks can be pulled off perfectly. An astounding conversion that proved to Amstrad and C64 owners that the Spectrum was still a force to be reckoned with.

Knight Lore

■ **Year:** 1984

■ **Publisher:** Ultimate

7 Sabreman returns, but this time he's gone isometric! After wowing gamers with titles such as *Jetpac*, *Sabre Wulf* and *Pssst*, Ultimate ushered in a new era of Spectrum visuals by dressing up Sabreman in some brand new isometric clothing.

Granted, an isometric Spectrum game was certainly nothing new – take a bow 3D *Ant Attack*. However, Ultimate's new 'Filmation' engine pushed the unique-looking style to previously unseen levels and delivered a title that was both stunning to look at and an absolute joy to play through.

After receiving a wolf bite at the end of *Sabre Wulf*, Sabreman has to explore the enormous castle and create the potion that will help to free him from his lycanthropic curse. Along the way he also has to deal with some incredibly fiendish puzzles that require critical timing, fast reflexes and plenty of skill. Oh, and did we mention that the poor blighter turns into a werewolf every evening?

Constantly imitated (most notably by Ultimate itself), but very rarely bettered, *Knight Lore* is a gloriously fun adventure that not only helped to cement the Stamper brothers as a force to be reckoned with, but also proved that Sir Clive Sinclair's humble 8-bit machine still had the ability to pleasantly surprise.

Target Renegade

■ **Year:** 1988

■ **Publisher:** Imagine

What do you do when you release a hit conversion of a popular arcade game that's never been blessed with a proper sequel? If you're Imagine Software you simply release your own unofficial spin-off that's even better than the arcade original.

With its bold, cartoony visuals, incredibly violent gameplay and frantic two-player action, Imagine's *Target Renegade* instantly captured the hearts of those arcade gamers who were obsessed with Technos' *Double Dragon* and delivered a home experience that no other fighter of the time was able to match.

Never mind that the plot's flimsier than a house of cards and has the disgraced gangs trying to redeem their honour by killing the renegade and his identical twin brother – *Target Renegade* was all about the action and Imagine did not disappoint. Punches, vicious knees to the groin and flying kicks were just a few of the moves the brothers had access to, while weapons like hammers, chains and even pool cues could be used to dish out additional hurt to your hapless foes. Excellent stuff.

Manic Miner

■ **Year:** 1983

■ **Publisher:** Bug-Byte

5

For further insight into the nutty world of *Manic Miner* head over to page 64 and read our in-depth 'Making of'. *Manic Miner* created many imitators, but none quite reached the heights of the original. It is the Spectrum's best platformer and a stunning example of the genre.

Despite being only 20 screens long – although it would take you some time to finish – *Manic Miner* proved to be the crowning jewel of Smith's short-lived career and delivered an experience that, if we're truly honest, Smith never had a fair chance of succeeding. Indeed, it's very much platform perfection.

Every enemy is well placed, the structure of each platform feels almost organic, while the pixel-perfect jumping will never – for the most part – test your patience. With its jaunty opening, boot-stomping ending and bizarre enemies, Smith's game proved to be a masterpiece that, 25 years later, still manages to impress.

An utterly ingenious piece of programming that shows just how far you can go with sheer talent and a very healthy imagination.

Elite

■ **Year:** 1985

■ **Publisher:** Firebird Software

4

We came extremely close to leaving *Elite* out of our top 25 list altogether, mainly due to its heavy association with the BBC home computer. However, after giving it a little bit of thought, we suddenly realised that there's no other Spectrum game out there that offers the same kind of unique experience as *Elite*.

With Firebird owning the rights to a glut of new systems and David Braben and Ian Bell busy at work on other conversions, it was left to another developer, Torus to handle the highly anticipated Spectrum conversion of the hit game. Fortunately though, the end result was a highly accurate re-creation of the original BBC release that not only offered the same sense of wonder and astonishment that the BBC and Acorn outings had delivered a year earlier, but even added a few original touches of its own.

Armed with nothing more than a Cobra Mk III and 100 credits, the universe of *Elite* is literally your oyster and you're given a real sense of freedom that is incomparable in other Spectrum releases. It might be a little more sluggish when compared to its BBC counterpart, but the same gripping and absorbing gameplay remained, and Torus even had the foresight to include several new missions that had never actually appeared in the BBC and Acorn originals. Ultimately though, for all its cosmetic changes, this was *Elite* through and through and it instantly received rave reviews from popular magazines such as *Crash* and *Sinclair User*.

With its sandbox gameplay, moral dilemmas – did you always play as the good guy, or occasionally go after some easy bounties? – and beautiful – if rather stark – wireframe visuals, *Elite* remains a true classic that no self-respecting gamer, Spectrum or otherwise, should go without experiencing at least once in their lives.

"R-TYPE ON THE SPECTRUM IS A THING OF BEAUTY AND IS EASILY THE BEST ARCADE CONVERSION TO GRACE THE MACHINE"

Head Over Heels

■ **Year:** 1987

■ **Publisher:** Ocean

3 After the arrival of *Knight Lore* in 1984, virtually every videogame publisher began jumping on the isometric bandwagon, desperate to cash in on what was becoming a rapidly popular genre. Despite many fine efforts – the majority of them usually being from Ultimate – none have ever come close to the sheer brilliance of John Ritman's utterly sublime *Head Over Heels*.

After cutting his isometric teeth on the thoroughly enjoyable *Batman*, Ritman's next project would be far more ambitious and included more devious puzzles, many, many more screens to explore, and, in a twist that was highly original for the time, two distinctive characters for the player to control; each with their own special abilities.

Head was a large-nosed… well, head… with a pair of stubby wings that enabled him to make mighty jumps and also glide for short periods, while Heels was an adorable puppy-like creature whose huge feet allowed him to quickly move through Bernie Drummond's surreal-looking environments. Originally known as 'Foot & Mouth' the duo are not only insanely cute (no easy task when you're dealing with a limited amount of pixels), but instantly recognisable to anyone from the 8-bit era.

Initially trapped in the bowels of Blacktooth Castle, your first task is to actually escape. These early screens are not only filled with some brilliantly conceived puzzles, but also act as the perfect tutorial for both Head and Heels' skills. Of course, once you've struggled through these first 40-odd rooms and managed to escape, your adventure not only truly begins, but Ritman also plays his masterstroke by revealing that the two odd-looking fellows can be combined to create one super-being.

It's not only a brilliant touch, but also enabled Ritman to create even more devious puzzles, as you were now forced to tackle rooms in a variety of different ways, with many of the later screens requiring a considerable amount of head scratching before you could finally move forward.

Spread across a total of five huge planets (each with its own distinct themes), and populated with some truly wacky sprites – Bernie Drummond created everything from a Prince Charles-headed Dalek to staircases made out of puppies – *Head Over Heels* is an unmissable adventure that's not only filled with enough charm to sink a battleship, but proves that two heads (okay, a head and heels) really are better than one.

Chaos

■ **Year:** 1985

■ **Publisher:** Games Workshop

2 Julian Gollop lent his brain to some of the finest strategy games to appear on the 8-bit micros. His greatest works include: *Laser Squad*, *Lords Of Chaos*, and the sublime *Rebelstar*.

Set on the planet of Limbo, *Chaos* was a very early and deceptively deep strategy game. If you've ever wondered why Games Workshops still seem to inhabit the high streets, or considered taking that plunge into the 'strat-'o'-fear', then you should really make *Chaos* the next game you boot up and play. But be warned, set aside a quiet afternoon because it's annoyingly addictive.

Beginning with a series of questions to help you create your hero and set you on course for the wonderful world of wizard duelling, the game then gave you the keys to a messy magical melee against up to seven other wizardly foes.

Okay, the graphics looked crude, and it wouldn't do much to impress any of your C64 and CPC chums, but its rudimentary look made getting a head around all the spells and rules of engagement more accessible.

After you had created your wizard, he would be blessed with a random collection of spells to help you vanquish your opponents.

The most innovative feature about *Chaos* was the fact that during play, being that your spells were purposefully temperamental little buggers, there was no guarantee that they would actually work.

The more potent the spell, the higher the risk of seeing it seize up on you. So while the Giant Rats were reliable, trying to persuade your Speccy to let you have access to one of *Chaos*'s bashful Golden Dragons would prove a little trickier.

To improve your odds you could cast some of the smaller spells to influence the laws of the game board and make opting for the stronger enemies less of a gamble, opening up a world of tactical possibilities.

3D Deathchase

1

■ **Year:** 1983

■ **Publisher:** Micromega

Now if you're a tree hugger, tree surgeon or a puppet you might want to avert your eyes, because this is a game that will more than likely cause you to grab the closest chainsaw and stick it into the nearest available hunk of wood.

Yes, this game does absolutely nothing for relations between humans and trees, but tons for the Speccy, 9K and gamer dealings. Now there really is only one word to describe *3D Deathchase* and that word is: trees.

So, out of the billion or so Spectrum titles that were ever released, why should *3D Deathchase* be considered the zenith of the machine? After all, many magazines of the day weren't overly kind towards the game when it was released. *Sinclair User* awarded the game a measly 60% and the oracle of Spectrum gaming *Your Sinclair*, weren't massive fans of the game either. It took Stuart Campbell to right past wrongs when he compiled and wrote the magazine's Top 100 Speccy games of all time list and reserved the number one spot for this brilliantly simple game.

Admittedly, the game is blessed with the most inanimate of enemies: trees. So yes, to some it might sound like a profoundly stupid idea in principle, and with a lot of green, blue or black – depending on whether you were on 'night patrol' – permeated with plenty of lofty orangey thick lines, it would be fair to say that it didn't really look all that fantastic neither.

We would have loved to have been in the room when Mervyn Estcourt pitched his idea to Micromega though…

"So then Mervyn, just so I'm 100 per cent clear on this. You want to make a pseudo-3D *Space Invaders* game about driving a bike through a forest. Oh, okay, so what do you have to fight? Other bikes, okay, and these bikes, they can fight back right? They can't fight back, okay, right, so where's the actual threat, where are the enemies in your game? The trees you say, as in the green leafy things outside? And these trees, you're giving them guns right?"

Playing a futuristic bounty hunter, *3D Deathchase* found you swerving through bountiful forests of ever-increasing density to chase and blow up two brightly coloured motorcyclists. Your enemies rely on astonishing driving abilities to draw you into groups of trees, with the hope that the Ents dish out some tree-hurt.

The greatest aspect about *3D Deathchase* was the sheer simplicity of the thing. The whole principle of the game was to avoid and invade. And the game occasionally threw in mothership-style bonus targets that allowed you to earn extra points.

Star Wars fans would probably find appeal from its peculiar similarity to the speeder bike chases in *Return Of The Jedi*, and wannabe Jedis would lovingly replay the scenes by booting up the game in tandem with a rather rich imagination.

The game also featured brilliantly swift scrolling and, with the trees on the later stages coming at you at breakneck speeds, an ingenious and visually fathomable difficulty curve was brought to the game. And when the game switched from day to night, the menacing dark sky would cause the pursuit to become a shade twitchier and destroying those skittish bikes that extra bit harder. It was all in your head though and, secretly, you knew it. You could never get angry at *3D Deathchase,* though. With all of the game's win/lose elements so clearly defined, unwittingly becoming one with nature was always of your own doing. A genius game, with a genius concept… quite simply: genius. *3D Deathchase*, we salute you.

Trashman

Cyclists

Watch out for cyclists pedalling down the pavement. Get struck by one and the collision will cause Trashman to temporarily limp, slowing him down.

Cars

Despite taking place in a leafy suburb, the streets are surprisingly full of speeding fools, all driving identical-looking cars.

Dustcart

Slowly making its way up the road is the dustcart, which is where Trashman must deposit the garbage. He has to be quick, though, as it won't wait around.

Trashman

Our hero, the hard-working Trashman, might be working to an incredibly tight schedule, but he still has to make time for his customers.

Customers

If Trashman clears a bin without standing on their grass, the owner will invite him in for a nice chat. It's all a bit *Confessions Of A Dustman*.

Dustbins

These are the objects of your desire. With each street you have to clear a mandatory number of bins before you can proceed to the next.

Proving that you could make a great game out of pretty much any subject if you approached it in the right way, *Trashman* was anything but a load of old rubbish. As a lowly refuse collector, it was your job to clean up the streets, literally, by clearing up the garbage of little computer people and being careful not to get killed by speeding lunatics, bitten by crazed dogs or crashed into by idiot cyclists. Stuart Hunt likes to get down and dirty.

WHY IT'S A CLASSIC

Good clean trashy fun

Thanks to the likes of *Manic Miner*, *Monty Mole* and *Paperboy*, working class heroes were well represented in videogames during the Eighties, but none of those classic titles captured the spirit of their associated job as successfully as *Trashman*. The little touches, humour and impressive attention to detail in its sedate gameplay made it such a joy to play. Graphically it ticked all the boxes too, with its top-down viewpoint providing the perfect overview of its colourful streets. It's a unique game with timeless gameplay, and that's why it's a classic.

A BLUFFER'S GUIDE

Man at work

If you're wondering how *Trashman* managed to take a laborious job and turn it into an entertaining computer game then allow us to explain. With each street you are given a requisite number of bins to empty. Once collected from the customers' front gardens, you must carry the bins to the dustcart, empty them out and then return them. You have to be mindful of busy traffic, cyclists and dangerous mutts, but mostly of a depleting bonus score, which is also your time limit. Fortunately, you can earn more time by stopping to chat to the snitching bozos to earn tips.

MAGIC MOMENT

Kissing goodbye to a busy week

Our favourite moment in *Trashman* has been when completing a week's work, earning a diploma and finishing the game. It's not easy to do. The final street has you collecting a staggering 12 bins, and when you empty the final one its owner will invite you in for a quick drink. Take up the offer and Trashman will emerge from the house as Trashedman, completely sozzled and unsteady on his feet. It provides a funny close to the game that sees you helping the staggering hero slowly saunter to the end of his route in one piece. You can decline the drink, but you'll be missing out on a nice tip.

BEST ASPECT

The little things

Fusing elements of *Frogger* with *Paperboy*, what makes *Trashman* so entertaining is its design. Its gameplay essentially boiled down to helping Trashman avoid dangers to clear enough rubbish in an allotted amount of time. While this probably doesn't sound all that interesting on paper, the well-realised streets are what bring the whole experience to life. *Trashman* is full of nice little ideas that make it more involving, from naming your dustman and having your bonus time docked for trampling on well-tended lawns, to getting a peek behind the curtains of the bizarre lives of your customers.

BEST GAG?

The old ones are the best ones

A strong part of *Trashman*'s charm is its quintessential British humour. There are a number of game references smattered throughout – from Trashman's delight at receiving a free Spectrum from a concerned mum, to a reference to creator Malcolm Evans' earlier hit *3D Monster Maze* when one customer offers him a copy. By far the most edgy gag in the entire game, though, occurs when Trashman is knocked down by a speeding car. Spelling the end of our hero, a news flash reporting on his death pops up on screen, and in the same story tastelessly mentions the favourite for the 'Trashman of the year' awards.

THE SEQUEL

Dustman's holiday

After working his socks off, our hero took a busman's holiday for the sequel. *Travel With Trashman* saw the binman take his refuse-collection talents around different places on the globe. With elements of a business management sim, given that you must earn and manage your cash to buy tickets to each exotic destination, the sequel had our hero collecting up rubbish in some pretty unusual situations. A trip to Spain finds him collecting bouquets in a bullring, while the outside of a Parisian café is the setting for an outbreak of frogs. It's an entertaining sequel but not a patch on the original.

IN THE KNOW

» **PUBLISHER:** NEW GENERATION SOFTWARE
» **DEVELOPER:** MALCOLM EVANS
» **RELEASED:** 1984
» **GENRE:** ACTION
» **EXPECT TO PAY:** A FEW QUID

What the press said… ages ago

Crash, 83%
"*Trashman* is an immensely playable game that is very addictive at first, but I think that quality might wear off after a while. Nevertheless, it's the best game that New Generation have produced yet."

What we think

It's an unusual game that has aged brilliantly. Indeed, if you've never played this evocative classic then we urge you to do so immediately. You won't regret getting your hands dirty.

THE MAKING OF...
MANIC MINER

Sat at the very desk where it was written, Matthew Smith watches Miner Willy leap through all 20 screens of his Spectrum masterpiece. Paul Drury holds the ashtray and takes notes

CENTRAL CAVERN

"This was the test screen, the first of everything," begins Matt. "The collapsing floors, conveyor belts, the jumps, the colour clash. Using two colours in the bricks of the solid platforms and then when you jump up on to the first platform, that's all testing for colour clash. It has one of all the difficult jumps in, too." How was difficulty determined, we ask. "From the end of the conveyor belt to the higher platform counts as a difficult jump… but I put in a safety net. I plotted it out on graph paper: two pixels and then a parabolic, acceleration down until you hit terminal velocity, at about four pixels a frame, then you started falling straight down. I'd do all the testing and see where you'd land." And what about the clockwork baddie on the conveyor belt? "Oh, just something I'd drawn. There's a bit of Yellow Submarine in him – that's where the mouth in the belly came from. The original sketches I did had water instead of conveyor belts. There were going to be streams of water and I was thinking about making it impossible to go backwards. That would make it more of a puzzle – working out how to get somewhere without going upstream – but by the time I started coding, they'd become conveyor belts."

THE COLD ROOM

Matt stares intently at the 'keys' on this level. "They're snowshoes. Well, tennis rackets." He then starts tapping the screen before we gently remind him it isn't a touchscreen. "Mmm, oh, right. I was just thinking about tweaking a pixel. I'm not sure if it would be better light or dark. I must have tried it both ways back then." Ever the perfectionist. And what about the shuffling birdies? "Everyone knows penguins are fully signed up members of the funny animals union." As Willy slowly descends the 'chimney', Matt chirps up, "For disintegrating platforms, I used the video memory of the Spectrum. It was the first machine I had with a bit mapped screen." We note that the Cold Room level is considerably easier than the previous one. "Oh, I didn't do the screens in order. No, I did the first screen first and then I think I made some attempt to sort the rest out and give a graduated gameplay. That's why the first screen is disproportionately hard, because it wasn't part of that scheme."
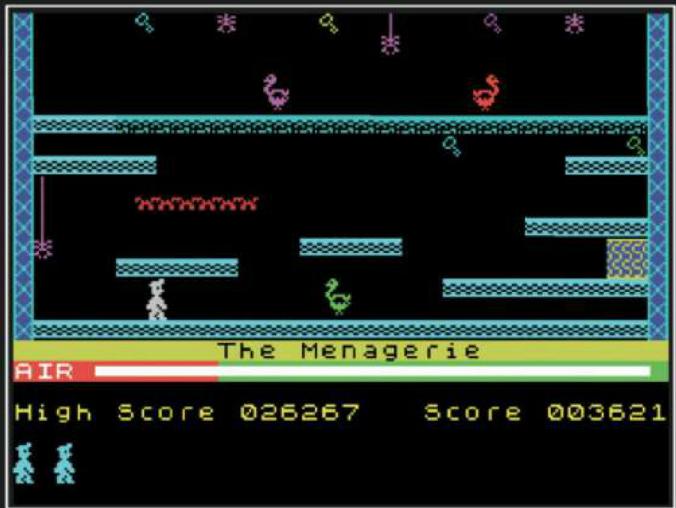
THE MENAGERIE

Matt scans the collection of creatures on screen. "Here we've got spiders, emus, well, ducks or something. Yeah, they're flying! Well, their feet are coming off the ground. They're having a go! Hang on; there are only two kinds of animal in there. That's a bit lame. There should be at least three before you call it a menagerie!" Matt's French may be questionable, but we wonder if the birds do signify another sort of love, that of a man for his footy team? "Yeah, you could see it as a tribute to Liverpool FC. They're not far off being liver birds and I'm definitely a red shirt."

ABANDONED URANIUM WORKS

Matt denies this is a comment on the nuclear paranoia of the Eighties, though it did play on a very real fear. "It's a room full of difficult jumps and you have to go across it more than once. It was supposed to be scary, about testing your confidence." He starts to contemplate the nature of death. "Miner Willy is two characters high and if you fall four characters you're dead. Two, you're safe and three… hang on, was two deadly? Oh, I can't remember…" His memory works better when recalling how he coded Willy's famous leap. "The first two frames, you go four and four pixels, that's one whole character, then it's 3, 3, then 2, which makes eight pixels and another whole character. Then 2, 1, 1, 0, 0, -1, -1, -2, -2… it's a smooth curve rounded to the nearest integer." He grins and inhales deeply. And the performing seals? "Oh, I think that was because I had a six pixel rotating ball and thought, how am I going to make this into a character? I know, I'll stick a seal below it!"

EUGENE'S LAIR

So to the memorable snapping bogs of Level 5. "I was telling my little brother Anthony about the toilet monster that reaches up and grabs you. Yeah, he really believed there was a green monster that lived down there," chuckles Matt maliciously. Not a comment on fellow coder Eugene 'Wacky Waiters' Evans' career going down the pan, then? "I'd met Eugene a few times. We were passing acquaintances. He'd hit the press before me and he played the media darling far more thoroughly than I did. Must have been jealousy, because he was working for the 'other' company, Imagine and I was still aligned with Bug-Byte when I was doing this. And they were buying flash cars first and writing good games second. Actually, I'd have got more trading in a smashed up sports car than I've had from any residuals." Are those gold bars Willy is collecting? "Nah, they're supposed to be stacks of credit cards. I had a choice of putting in a line to show they're stacked."

PROCESSING PLANT

An obvious homage to the arcades of Matt's youth. "Yeah I used to play *Pac-Man* at the Unit 4 cinema in Wallasey." ("Don't look for it, it's not there any more" – *Spinal Tap*, ed). The addition of legs was a feeble attempt to avoid copyright infringement, perhaps? "Oh, I think we were all relying on the American 'Fair Use' provision, though thinking about it, that didn't actually exist in British law at the time. No, there were spare pixels free at the bottom. It had to be ten pixels wide to make it scroll smoothly and because it's round, it's got to be ten high, when everything else is 16, hence the legs." We note the level requires some tricky traversing along platforms with restricted headroom. "Yeah, I was designing routes by this time. I usually tried to get you to go across the screen as many times as possible, which makes things more interesting," cackles the evil genius.

THE VAT

Given Matt's on-off relationship with money over the years, we wonder if this is a reference to the Inland Revenue? "Nah, just a huge block of collapsing floors," he assures us. "Pure aesthetics really and no extra code needed. These collapsing floors were supposed to be one thing and I was seeing what else they could be. That's serendipity, that." And what of the kangaroo connection? He exhales and ponders for a while. "Erm, kangaroo meat? Dog food factory? Dunno… could be… random thoughts." With all the disintegration, it must have been an awkward screen to test? "With The Vat, I had my route and tested it over and over again. I didn't really know if there were any other routes. Some of these levels I've only ever done once, to this day. Same principle with the Banyan Tree in *Jet Set Willy*. There's no random numbers in the game. Every time you go into a level, you get the same start positions and speed, so if I can do it once then it's going to be a bit difficult for the good players." That's something of an understatement, Matt. "Quality control," he winks back.

MINER WILLY MEETS THE KONG BEAST

Another nod to the New Brighton arcades he frequented as a lad. "Barrels, bananas… I should have put hammers in and it would have been a complete tribute to *Donkey Kong*," he notes. It includes some testing jumps – "Yeah, some fives on this," Matt confirms, referring to the width of the gap in characters, "and they had to be pixel perfect." – and the first appearance of switches, though flipping both wasn't obligatory. "Maybe that was a mistake," muses Matt. "Maybe you were supposed to flick it to finish the level and I just completely forgot to test it." Then he has an epiphany. "Ah, no! The only violence in the game is completely optional! That's for if you feel a pathological compulsion to kill the Kong Beast. I think I was just being a hippy…" He adopts a 'Neil from *The Young Ones*' accent, which is not hugely different from his real voice. "You don't have to kill the monkey, man!"

WACKY AMOEBATRONS

"Yeah, a straight horizontal grid, innit," observes Matt of one of the game's more traditional levels. But are those bog brushes on wheels? "Ah, because your collisions with the sprites are pixel perfect, here I was testing what shapes you could clear. Willy was always 16 pixels high, but different widths at different points during a jump. I was testing the limits, so I made it as tall and thin as possible. I think I was going to make it go up and down so you could only jump over it at certain times, but then I worked out that even at the full height a sprite could be, you could still get over it if you timed it right – this was the level where I was finding that out." It's also the first level to undergo a change when *Manic Miner* was re-released through Software Projects. "Yeah, the amoebatrons were originally the Bug-Byte logo, so I changed them when I left. Didn't need any legal advice on that one!"

ENDORIAN FOREST

Those creatures look uncannily like Ewoks, Endor was their home planet and *Return Of The Jedi* was released the same year as *Manic Miner*. Let's take a wild guess and say you were a *Star Wars* fan, Matt. "I was that week! Went to see it, came home and stuck this screen in. Would I be a Jedi or Sith? Oh, Jedi! In fact, I put that on the last census as my religion." At this juncture we suggest a pause to replenish the Guinness and empty the ashtray as we're on screen ten and so halfway. "Nah, this is screen nine," Matt protests. We assure him we've reached double figures. "Oh, sorry. I always start counting from zero." You can't take the hex out of the boy…

RETURN OF THE ALIEN KONG BEAST

Alien because of the pulsating head we assume, Matt. He squints at the screen. "Yeah! It is going in and out!" Matt simulates the throbbing with his hands and this seems to trigger the memory of a little coding quirk. "I gave all the screens literal numbers, so like, if you were using one of those editors that came out, this screen would always have to have a Kong Beast in. Every screen had to share the same code – I couldn't do 20 different programmes – so I'd have flags and if it was one of those screens and another test was passed, whatever it was, Kong, Eugene or whatever, would go to the bottom of the screen and stay there." We watch Willy plunge to collect the final banana before landing safely in the exit. "Do you have to get there before Kong does? No? Oh, I suppose I was playing with you a bit with that," grins Matt.

ATTACK OF THE MUTANT TELEPHONES

The title is a reference to fellow coder, Jeff Minter. "I met Jeff a few times, when we won Golden Joysticks. We got on alright. Talked about music and stuff." We recall you said you liked this screen during your appearance on Iain Lee's TV documentary *Thumb Candy*. "Those phones are probably my favourite. Do you wanna see a photo of the actual phone they were modelled on? A BT 300 series." Matt goes upstairs but returns empty-handed. Quite a busy screen, this. Was there a limit to the number of enemies you could include? "Yeah, four going up and down and four going left and right. Hang on, I think you could change that to eight going up and down or left and right. I think I did that on certain screens. The Skylab Landing Bay… But yeah, eight was the limit. Due to memory. And speed. There's only so much you can draw before everything slows down. So make eight a constant and you don't have to worry about it!"

ORE REFINERY

"Are those lumps of ore? Probably," says Matt. "And you'd imagine a skull and crossbones not to be the target, but it is!" Despite Willy holding one over his shoulder on the cover of the second edition of the game, this level has one of only two ladders that appear in the game. It also has a lovely blinking eye. Any significance, Matt? "Oh ore!" he cries, cryptically. We admire Willy's well-timed, 'no going back' dash to the exit. "Oh yeah, you could've played for ages and get it wrong with that. Ha! I'd draw the platforms on graph paper and put arrows in where… No, no I didn't," he says, correcting himself. "I didn't use graph paper for *Manic Miner*. I wrote an editor on the Tandy for it. I wasn't using graph paper for level design, I was painting them in and playtesting them. I'd do a bit and see if it was possible to get past that. Then I'd add the next bit." And so his masterpiece evolved…

THE MAKING OF…
MANIC MINER

SKYLAB LANDING BAY

This level was always our undoing. The random falling objects instilled such panic in our young fingers. "Nope, it's all in a set sequence," Matt explains. "If you tape record this screen, it should be the same on every version. You can learn the pattern." His mind moves on to higher things. "Skylab was launched the year before and it crashed and burned… for the usual reasons. I don't know what they're going to do with the international space station when they can't afford to refuel it. I reckon they'll send it off into a higher parking orbit when they're finished with it… too big to crash and burn." Erm, and the keys on this screen? "Oh, they're computer chips." I notice Matt's fingers are twitching and then he starts making plinky plonky noises, while indulging in some inspired 'air gaming.' He still loves his baby…

THE BANK

We both smile at the rubber cheque on this screen. "Oh, cheques bounce," says Matt, ruefully. The ladders are back, too. "Yeah, that's a trellis. Left and right are the same character. I think you could only use eight different characters on each screen. Or was it four? *Jet Set Willy* was four, I think. That was even more primitive in some ways. The keys were stored separately. Were they? I can't remember. No, no they weren't. You could have a room full of 'em. The ladder was made from reusing a trellis character. There's no flipping in this – the line has to be up the middle. If they're flipped, they have to be stored twice in memory. You bit flip it and it's a completely different number. Flipping is an expensive operation on the Spectrum. Well, horizontal flipping is. Vertical is okay. That's just a memory location." We nod and hope you coders followed all that.

SIXTEENTH CAVERN

"I'd run out of names. Or maybe I was thinking in hexadecimal and thought it didn't need one," says Matt. And what are those enemies? "Flag bugs! In the code. If flag bug equals…" He thinks for a while. "Did they do anything special? No? Perhaps they were meant to. The graphics weren't saved as files, it was done by numbers. I was putting it into video memory. I laid out the levels using the editor but I was doing the graphics on graph paper. I didn't have BOUGIE (Byte Orientated Universal Graphics Interactive Editor) then. A thing I wrote that let me run through four frames of animation, forwards or backwards. Skylab is an exception. They have eight frames for the explosion, but the normal was four." And the keys? "That was an attempt at credit cards," he says. We note the need of collecting the key nearest the exit last, lest poor Willy is trapped with a depleting air supply. "It's not good to have tricks like that. Sometimes you can't resist it," he beams.

THE WAREHOUSE

"This was another experiment that I thought was so impossibly hard it would do nicely as a killer… a boss level!" he explains with a malevolent cackle. "I only ever completed this once [Pedants note, last time we met he confessed to never having completed it]. "Now I've had more practice maybe I could do it in half a dozen goes. With moving things and collapsing floors it's very hard to measure whether something is possible. Because everything is pre-determined, if it's possible once, it's possible for everyone. That's the only way you can really know that you're not on a bum steer." The lawn mower threshers on this level changed into the Software Projects 'Impossible Triangle' logo at the same time the Bug-Bytes were ditched. Or at least, that was the plan…

AMOEBATRONS' REVENGE

The tentacles are back in a reprise of Level 9, though they now seem to resemble the invaders from *War Of The Worlds*. "I thought they were jellyfish but yeah, maybe they have evolved into a higher life form," muses Matt. The difficulty has also grown. "This screen has all the different speeds the enemies can move at, up to four pixels a frame. I did the same sort of thing in *Jet Set Willy* for the Kitchen, but split it over two screens."

THE FINAL BARRIER

We're almost home. And with the sun setting romantically over the lake, it never looked sweeter. "Yeah, I'm playing around with colour clash here. The graphics are sort of better. I had more freedom because there wasn't any interaction. If you're on screen 20, put the title screen graphics on the top half and you don't have to worry about 'em. I did do this screen on graph paper, then cut it up into characters and worked it out in hex in my head. No art packages or scanners back then!" Is that a lucky horseshoe signifying the final exit? "Nah, it's omega – the end!" And the fish and dagger that rewarded the heroic few? "Oh, just things I'd drawn that were only eight pixels high and 16 across and I hadn't used in the game," he says casually. But Matt, at the Screenplay Festival a few years back, and admittedly after a few beers, you went on about its religious connotations, that it was your attempt to give gaming a "little bit of folklore"? He takes one last drag of his roll-up. "It might have," he smiles. "You'll find out in my next broadcast…" Ah, if only…

SOLAR POWER GENERATOR

Was this a sign of your growing environmental awareness then, Matt? He has a wild, far-off look in his eye. "No more than any other rational person. I'm worried about the environment, man…" he answers in that Neil voice. "I think this is one of the brightest backgrounds. Up till now, I think I'd only done one of the four dark colours. Mainly black." Nice solar-ray effect. Was it tricky to create? "Ooh, highly technical," he laughs. "Nah, just a little bit of code. Easy enough to program. One character wide, go down and if it hits something, go that way – always at a right angle. The Spectrum can only do right angles in colour. Get it bouncing around. They'd call it artificial intelligence now. Doesn't kill you but it sucks your air down when you're in the beam. It's sort of complicated and you do run out of air, but it's not a particularly hard level." We can't be the only ones to strongly disagree…

A FAIRY TALE BEGINNING THAT ALL ENDED IN TEARS. WHO COULD HAVE IMAGINED IT?
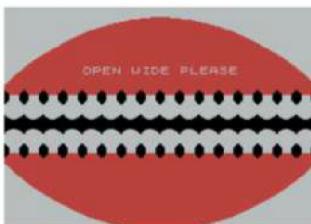
Among the whiz-kid software houses from the halcyon days of 8-bit home computing was the popular Spectrum developer Imagine Software. It lived fast and died young, spectacularly going bust right in front of a BBC TV film crew. Humble beginnings, pioneering, often ambitious computer games, debonair lifestyles and a dramatic climax, Imagine Software did it all inside of just 18 very short months

Mark Butler (a salesman) and Dave Lawson (a programmer) met at the increasingly successful Liverpudlian software company Bug Byte, which also nurtured the talents of Manic Miner creator Matthew Smith. Not long after beginning their tenure, a divergence from managerial policy prompted the pair to leave Bug Byte and start their own software house known as Imagine. Lawson had already put together a game that would be used as Imagine's launch title: an addictive space-based shooter for the Spectrum 16K and Commodore Vic 20 that was entitled Arcadia.

With the proceeds from the outstanding success of Arcadia and the subsequent Spectrum titles making headway on the good Imagine name, earnings rapidly skyrocketed, prompting the new industry hot-shots to relocate into professional premises, whilst taking on staff and pouring funding into new projects. Their former boss, Bruce Everiss was brought in as a general manager, allowing Lawson and Butler the time to indulge themselves in the flamboyant, playboy lifestyles they had been building towards.

Back in the early days, many were the software developers that easily entered the market due to their technical expertise, but quickly suffered from a lack of business and marketing proficiency; not unlike the tornado of 'dot com' companies in recent years. Imagine, however, did not struggle with the task of spreading its good word, and deftly, if occasionally unscrupulously, played the media game to win.

A teenage employee who had proven himself as somewhat of a programming prodigy had taken an in-house job at Imagine and was the subject of an ingenious marketing ploy to increase the public profile of his impetuous employers. His name was Eugene Evans, and 'somehow' the tabloids got hold of his remarkable success story.

The Daily Star carried the headline '£35,000 WHIZ KID'; referring to rumours that Evans was on such a salary at Imagine when only 16-years-old. It was suggested that he already owned a flashy sports car despite being too young to drive it. This entire media buzz was a ruse that was designed to improve Imagine's standing in the software developers' community and ease any concerns that distributors might have about dealing with such fledgling programmers.

And its unconventional marketing strategies didn't stop there. After the gaping void in the availability of computer games in 1982, developers were bustling and ready for the following holiday season. 1983 was set to see the most savage competition the UK games market had ever seen, and Imagine was determined to come out of it smelling of green.

IN (PUT) FLAGRANTE

Another potentially lucrative deal with publishers Marshall Cavendish also caused perturbing chest pains for the increasingly troubled company. Imagine had taken a £200,000 advance for supplying games to accompany its new computer-based partworks publication, Input.

The deal was for fortnightly multi-format cover tapes containing computer games, but Imagine was late in delivering the reportedly substandard goods. Marshall Cavendish demanded that its advance payment be returned, which left a gaping hole in Imagine's already Swiss-cheese finances. A statement by Imagine in Sinclair User stated that Marshall Cavendish had requested 'average' games, while the ones supplied were just too good, so the deal was called off!
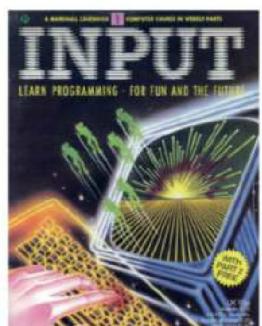
In brief: Retro Gamer recounts the playboy lifestyle of the ill-fated, dynamic, renowned Liverpool software house, Imagine, and its spectacular collapse right in front of a TV film crew. Formed by Mark Butler and Dave Lawson (above), Imagine appeared to have it all. As time progressed, the arrogance and extravagant lifestyles of its two co-founders cost the company dearly and it eventually closed its doors within two years of the company forming. Its story remains a valuable lesson for software companies the world over.
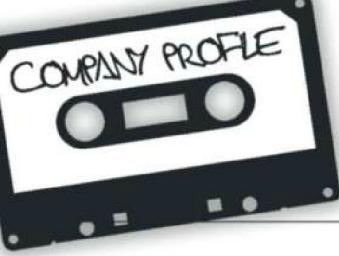
IMAGINE SOFTWARE

NOT SO JOLLY

In an attempt to reduce its burdens, marketing rights to Imagine's back catalogue were sold to London based publishers, Beau Jolly, which then distributed the newly acquired titles through Mastertronic's budget range and in compilations. In an interview for Crash magazine, Beau Jolly's Managing Director, Colin Ashby, admitted to not being very happy with deal.

He was also under the impression that the agreement included investment in new developments, most notably, the mega games.

Dave Lawson and Ian Hetherington had been putting together a lifeboat for themselves in the shape of a new company called Finchspeed, however, that was concentrating on completing the mega games and putting them out for the forthcoming Sinclair QL computer. These were developments insinuated to be part of Imagine's resuscitation deal with Beau Jolly, but apparently that was never the intention

» One of the compilations Beau Jolly managed to release after buying up some failing Imagine property.

» It might be ostentatious, but the golden Alchemist tape is a collectors dream.

FINEST HOUR

ALCHEMIST

An enthralling blend of action, adventure and role-playing that not only captured the... well, imagination of the players, but provided an inspiring showcase of the Spectrum's abilities for the generations that followed. A special edition ostentatious 'gold' cassette was even released, which is well worth hunting down on eBay.

MEGA GAMES, MEGA PROBLEMS

In an unprincipled attempt to stymie rival developers in the run up to Christmas '83, Imagine booked up all the cassette duplication time at Kiltdale, the largest tape duplicator for the software industry at the time. Since games stayed in development right up until the eleventh hour, it would be impossible for Imagine's rivals to make the Christmas rush. This was an ingenious idea that hinged on one minor point: for the conspiracy to pay off, Imagine had to achieve unprecedented sales during, and after, Christmas 1983. This was just in time for the global software industry to begin crumbling, and Imagine was forced to hire an entire warehouse to store all its unsold cassettes.

Whether or not Imagine's ploy to ground rival house's duplication requirements was successful is difficult to say. The boom was far greater than expected, with literally hundreds of different software titles flooding the shelves, causing serious concerns that despite the massive sales figures, profit was spread so thinly that many software developers were unlikely to survive the winter.

By the time the Imagine team was established and the plush offices stocked from floor to ceiling with the highest of high-tech, it was time for the Lawson and Butler Show to begin work on the masterpiece they had envisioned from day one. They believed that the limits of the cassette-based systems had been reached, and the only way forward was in the shape of their 'mega game' concept. The launch titles, *Psyclapse* and *Bandersnatch*, would be vastly superior games to anything that had come before as they would be supported by additional hardware packaged with the game.

On average, an 8-bit computer game at the

time cost around £7, while the mega games were set to retail between £30 and £40, assuming Imagine could afford to order the massive quantities from the Far East required to get the manufacturing costs down. Coupled with the extended software development times and additional manpower necessary to get the two proposed projects off the ground, the software hot shots were going to need some serious financing.

In 1983, the BBC began filming a series of programmes called 'Commercial Breaks', the new documentary was to follow the trials and tribulations faced by various companies and individuals that were trying to introduce new products to the high street. One of the BBC's concepts was to closely examine the burgeoning software industry, and Imagine was picked out as suitable candidates for the cameras to stalk.

At first, Imagine's management team were more than a little reluctant to allow the film crew into their studio, saying there were far too many sensitive projects under development to allow filming. However, once it was discovered that Ocean was also taking part in the program, Imagine's vanity won through and it agreed to take part. Dave Lawson saw it as the opportunity to record the birth of the next-generation of computer

"BY THE TIME THE IMAGINE TEAM WAS ESTABLISHED AND THE PLUSH OFFICES STOCKED FROM FLOOR TO CEILING WITH THE HIGHEST OF HIGH-TECH, IT WAS TIME FOR THE LAWSON AND BUTLER SHOW TO BEGIN WORK ON THE MASTERPIECE THEY HAD ENVISIONED SINCE DAY ONE"

games for posterity, and indeed it would capture a unique event in the life of the British software industry, though it was not quite the one Lawson might have hoped for.

FINANCIAL ALCHEMY

Imagine's tape replication ploy certainly didn't pan out as it had hoped and the thousands upon thousands of extra copies it had ordered to deliberately congest the duplicators now had to be shelved – and money was rapidly running out.

Imagine was already beginning to topple behind the scenes, even while the BBC camera crew was being installed and opening shots of plush offices swollen with expensive hardware and management arriving for work in lavish cars were being filmed. An incident included in the BBC2 program showed a board meeting discussing the slow progress of the mega games and ways to keep the distributors on side with teaser advertisements, when an eagerly anticipated phone call is snatched up by the apprehensive Financial Director.

He had apparently been waiting for a call regarding the £2 million investment capital needed to move the over-hyped mega games forward. The sunken look on his face as he dropped the receiver back onto the phone

GAMES REVIEWS

ARCADIA
IMAGINE/INDESCOMP (1982)
» Written by Dave Lawson himself, *Arcadia* formed the foundations on which Imagine was built. An addictive, fast-paced *Space Invaders* clone (featuring the evil Atarian Empire) was just what the home computing scene needed. Anyone who had 'ummed' and 'ahhed' about buying a computer was reassured that they'd made the right choice. The Spectrum and the Vic 20 became serious contenders overnight, all thanks to Imagine. **85%**

AH, DIDDUMS
IMAGINE (1983)
» *Ah, Diddums* was a darkly surreal game. You, a big fluffy teddy bear, must escape from the toy box to comfort a crying baby. Should the baby be silenced, however, Mother will appear to turn off the lights, so the rest of the toys (who don't like the dark) are determined to stop teddy from escaping.
All in all this was a pretty good game, with some impressive graphics and plenty of sound. **73%**

SCHIZOIDS
IMAGINE (1983)
» Touted as a '3D breathtaking visual experience', *Schizoids* presents an initially impressive visage as the geometric vectors of space debris spin smoothly around the black hole at the centre of the screen.
The slick 3D graphics, however, were small compensation for the irritating control of the 'space-dozer' that you had to use to attempt to move garbage into the black hole. It was absolutely rubbish. **45%**

STONKERS
IMAGINE (1983)
» Put together by John 'Grandad' Gibson, *Stonkers* was a war strategy game without all the finicky scenario setups that ate up the gameplay of many other tactic based games; it got right down to the good stuff.
It appealed to veterans of the strategy genre, while the intense, non-stop action of the battles brings the game close to being an action title, making it equally accessible to fight junkies like us. **84%**

gave a clear indication to everyone as to the nature of the call, and as the meeting drew to a close, he stressed that no more financial commitments were to be placed without his express permission.

Up until this point, the film had concentrated on Imagine's impressive vision and doubly impressive public profile, reiterating the tabloid stories of millionaire teenager programmers and presenting action scenes of the Imagine motorbike team speeding around the Isle of Man. The sudden and unexpected change of direction depicting the company as a brave face on an extremely tenuous situation perfectly exemplified its shifting fortunes.

The meeting scene was interspersed with views of a representative from Kiltdale, the cassette duplicators Imagine had booked up for the Christmas period, anxiously pacing the lush carpet in reception, waiting to collect the £50,000 owed for the stranglehold ploy…

THE MEGA-GAME'S UP
As its difficulties compounded, Imagine suddenly caused an uproar by drastically reducing the retail price of all their games, including new releases, to £3.95; meaning that many retailers who were still holding vast unused stocks of Imagine titles were going to lose a considerable investment. The official line on the price drop was that Imagine was enjoying such success that it was able to return some of its profits to its loyal customers, when in fact it was desperate to shift as much of its inactive inventory as possible to pay off some of its escalating debts.

What Imagine wasn't prepared for was the abrupt and very public admonishment from across the industry. Other software houses immediately put out statements insisting they would not be following suit as the new

Imagine price tag was unrealistic and could only lead to second-rate products, while the Guild of Software Houses told the press that the move was potentially damaging to the industry. Imagine only took notice when threats from high street retailers to cease stocking its products forced the desperate developers to about turn on its price revision only two weeks after the initial announcement; which cost an equal amount of credibility as it did quick sales.

In retrospect, this drastic marketing tactic was the death knell for Imagine.

One magazines that had carried a lot of Imagine's adverts was Crash, which, whilst remaining truthful, pulled no punches in reporting the goings on that lead to its outstanding payments, reportedly receiving more than a couple of warnings not to print anything pejorative. Naturally, those warnings were included in Crash's reports!

Neither Crash, Kiltdale nor any of the other creditors owed money had any success in contacting the upper echelons of Imagine other than a very despondent, antagonised Bruce Everiss, who was not a signatory and therefore unable to write any cheques. He was quoted in a Crash article as saying that he had looked through the company's finance records when the directors had disappeared and found there had never been a VAT return or any kind of financial control at all. His final appearance on the BBC2 documentary is of him showing the crew around an inactive, almost ransacked office where workers were watching 'American Werewolf in London' or having fire extinguisher fights to pass the time. According to his Crash interview, "…the company is up shit street."

Then, right in front of the BBC cameras, matters came to a head. Dave Lawson and

Ian Hetherington (the Financial Director) abruptly left for America seeking venture capital to save Imagine (although it was more likely a trip to hunt for investors for their new enterprise, Finchspeed) when Cornhill Publications and VNU Business Press simultaneously petitioned the High Court to have Imagine wound up for non-payment of debts. These petitions went unopposed, and as the BBC camera crew and several Imagine staff returned from their lunch on 29 June 1984, they found the doors to the company locked as agents of the bailiff moved in. The BBC even had difficulty reclaiming two of the cameras that were inside when the company was occupied.

Mark Butler returned from racing his Imagine sponsored motorbike around the TT races covered in bandages after (rather ironically) crashing at the exact same time as his company collapsed, watching stunned and distraught as his beloved Ferrari was loaded onto the back of the repo-man's lorry.

In less than two years of trading, the whirlwind life of the Imagine software house came to a dramatic and spectacular end.

THE NAME OF THE GAME
The banner of Imagine, along with much of its workforce, was resurrected by David Ward of Ocean when he bought the name and much of the equipment from the liquidators.

Despite its self-inflicted quandaries, Imagine will be remembered for providing some truly spectacular titles in its short lifespan, rather than the unfortunate happenings that surrounded its existence.

The label, and much of the talent that was fostered, went on to enjoy prolific careers, ensuring that Imagine's legacy would be more than just scandal, avarice and misfortune.

BAD REP
The mounting uncertainty of the mega game's future was depicted by a brief outing with Imagine's sales rep in the BBC2 *Commercial Breaks* program, as she met with an apprehensive distributor regarding a vast quantity of unsold games. In true Imagine style, rather than tackle the problems at hand, she brushed them aside to concentrate on pushing the next big sale: the mega game she had apparently been promising the distributor for some time. Her abortive attempts to explain the revolutionary aspects of these new titles – that she had never even seen – clearly put the distributor on edge, particularly when she let slip that the cost would be nearly seven times that of the average computer game. He was polite for the cameras, but noticeably kept her at arms length.

ALCHEMIST
IMAGINE (1983)
» *Alchemist* was undoubtedly Imagine's crowning achievement. In an attempt to destroy an evil warlock, the Alchemist must piece together a scroll that contains the spell of destruction. His deft use of metamorphosis and spell casting allowed him to take on his enemies threatening domain.
Large, well-animated sprites and terrific backdrops made Alchemist a true slice of fried gold. **90%**

BC BILL
IMAGINE (1984)
» *BC Bill* smacked of a game hacked together during the death throes of the company. The caveman wandered about the single screen coshing prospective cave-wives over the head and dragging them back to his cave for some Palaeolithic pleasures. Kids then started appearing to provide food for the passing dinosaurs and antagonism for the hirsute Neanderthal. The Flintstones was never this boring. **50%**

MOLAR MAUL
IMAGINE, (1983)
» A more enjoyable game than it deserved to be, probably due to being laced with the outrageously imaginative gameplay and rakish humour the Imagine team was imbued with.
As a toothbrush, you had to patrol the inside of a mouth fighting off the evil DK's as they attempt to ruin the enamel. Unusual, and not a little bit icky, Molar Maul just managed to tip the scale towards success. **60%**

JUMPING JACK
IMAGINE (1983)
» A game that wouldn't look out of place on a Atari 2600, this was a very basic, yet strangely addictive idea that almost certainly started life as a Donkey Kong clone.
The basic graphics left all the enjoyment down to gameplay, which involved ascending the levels by jumping through holes as they pass above Jack's head.
Enjoyable, but not one of Imagine's better titles. **66%**

AVOID LIKE THE PLAGUE
BC BILL
Quite clearly, the fate of Imagine was known to the despondent staff as they casually threw together an unfitting epitaph that would have been a rubbish handheld LCD game, never mind a waste of valuable cassette tape.

THE CLASSIC GAME

FEUD

Flower-picking, warring wizards and devastating incantations. Retro Gamer grabs its spell book, heads for the herb gardens and prepares for a battle to the death.

» Look out! it's your wayward brother. He'll fling spells at you if you dawdle, so move away as quickly as possible.

Sometimes it's possible to spot a classic game from a mile off. Often critically acclaimed and filled with incredibly innovative ideas that practically jump out at you, its pedigree is there for all to see and admire and you can usually guarantee that it'll be popping up in classic polls several years down the line. Other times though, despite initial high praise, a game can sometimes slip below the radar, only to be lost to all but the most ardent of gamers. The Pickford brothers' *Feud* is one such game.

Often jokingly referred to by the Pickford brothers – Jon created the original design, while Ste worked on the visuals – as 'gaming's first deathmatch against a computer opponent', *Feud* remains a refreshingly enjoyable romp that has weathered the last 20 years exceptionally well and shows no sign of getting stale. It also came up with the idea of featuring sibling rivalry in a videogame long before Kojima got in on the act with *Metal Gear Solid*'s Liquid and Solid Snake.

Unlike Kojima's siblings, the Pickfords' creations didn't have hi-tech weaponry, advanced combat training or computer skills to rely on; they simply resorted to good old-fashioned spellcraft to solve their problems. For you see, Learic and Leanoric were two rival warlocks with a hatred for each other that was so great even Noel and Liam Gallagher would blush.

Feud begins when the two warring brothers are at the end of their tethers, and finally realise that they're never going to be able to get along with each other. Therefore they decide that the only way to solve the issue is by competing in one last fight. This time though, instead of turning each other into animals or taking out their anger on the simple villagers they decide to fling spells until the vanquished brother is resting in the cold hard ground.

And thus begins one of the tensest gaming experiences ever created for an 8-bit micro (or 16-bit if you were lucky enough to own the Amiga version). What's interesting about *Feud* is that

while the two brothers had a variety of deadly spells at their disposal, they couldn't actually use them until they had acquired the correct ingredients (each of the 12 spells required two components). Therefore the early stages of *Feud* had you frantically searching the countryside for suitable herbs and roots that could be used to create the many potent spells

» Dozy villagers will often annoy you by getting in your way. Get revenge by turning them into zombies.

» The two figures to the right of your spellbook depict the current health of each wizard.

» There are a wide variety of spells to be used in the game. Some will help you, but many will damage your opponent.

» You've found the Dragonsteeth, now all you need is the Mousetail and you can make your fireball.

that were needed to defeat your evil brother Leanoric. Of course, gathering these resources was far from easy, mainly because the countryside the two brothers lived in was spread across 90 beautifully drawn screens and filled with some seriously devilish mazes to negotiate. Indeed, your first few plays normally ended with frustration, as you constantly found yourself walking into dead ends, a herb often lying just out of reach. Once you'd figured out *Feud*'s clever layout however, progress became far easier and allowed you to focus on your next objective – staying out of your brother's way until you were ready to actually deal with the bugger.

And this is where the beauty of *Feud* truly shines – at least on the Amstrad and Spectrum versions – because while you were trying to gather plants like Cud Weed and Knap Weed (they make great lightning bolts don't you know) your brother was doing exactly the same thing. Yes *Feud* looked the biz with its bold cartoony visuals and stirring soundtrack, but what made the Pickfords' creation truly stand apart from other titles of the time was the fact that your brother Leanoric came across as a living, breathing player. This was no mean feat when you consider the limitations of the hardware. Therefore, while you were busy planning strategies and working your way through the mazelike countryside, your brother was doing exactly the same thing.

Fortunately a compass in the bottom-right corner of the screen would point out your brother's position in the game world, so you generally had a good idea where

IT WORKED SO WELL THAT THE BROTHERS ARE NOW PROMISING AN UPDATE, ALTHOUGH THEIR WEBSITE DOES STRESS THAT ITS FORMAT WILL BE A LITTLE DIFFERENT TO WHAT WE'RE SO ACCUSTOMED TO

the devious warlock would be hiding. Sooner or later though the need to reach certain locations – the herb garden for example featured a variety of useful herbs – in order to complete specific spells meant that the two rivals would eventually run into each other. And woe betide the foolish wizard who entered a battle with no spells available…

Fireballs, sprites and the aforementioned lightning bolts were just a few of the deadly offensive spells that both skilled wizards had access to and a successful hit with them considerably drained your energy (depicted by two on-screen wizards who would slowly sink into the ground). Freeze spells held your opponent in place, hopefully allowing you to use more dangerous incantations, while spells like Doppelganger, Protect and Invisible granted you with ways of deflecting Leanoric's continued attacks. What's interesting is that the more dangerous spells were often a lot harder to acquire, so *Feud* actually required a fair amount of strategy in order to defeat your annoying sibling. Did you simply keep close to home, (you have to return to your

hut and a huge cauldron in order to create spells) or did you stray further afield and risk stumbling into your brother and a potentially fearsome arsenal of spells? It's an interesting dilemma that worked perfectly, unless you owned a C64 (see boxout). In fact, it worked so well that the brothers are now promising an update, although their website does stress that its format will be a little different to what we've grown so accustomed to. Still, if it's half as good as the 1987 original we'll be first in line to buy it.

» He may look friendly but the owner of the herb garden will rob you of energy if you get too close to him.

CRASH

A true Crash Smash

Celebrating
28years
of Crash
Magazine

Newsfield's Crash was unlike any other gaming magazine, and as a result it's built up a tremendous following over the last 28 years. Retro Gamer spoke to Oliver Frey, Roger Kean and Matthew Uffindell and discovered how a Ludlow-based David took on the London Goliaths

RG: So, guys, tell us a little bit about life before *Crash*…

Roger Kean: I was a film editor. I worked for the BBC, Thames Television, Granada and I'd also been doing graphics, because before I went to London Film School I'd been to the college of art. I got bored with painting, however, and thought films were much more exciting. In fact I met Oliver at the London Film School. We moved to Ludlow in 1980. I was still doing one week on one week off in London for a magazine company, but Oliver's brother Franco came up with this notion that Spectrum games, which you couldn't buy in the shops at that time, would become a big business and that we should start a mail order business. We started Crash: Micro Games Action in 1983 and began advertising in the likes of *Computer & Video Games*, *Your Sinclair* and *Computer Trade Weekly*. In turned into a decent business; nothing spectacular, but it kept us in mortgage payments. Anyway, a lot of kids from Ludlow school were reading these magazines and suddenly realised that somebody was selling these games in their sleepy little town and they suddenly began queuing at the door. Simultaneously we received a call from Wells Gardner & Darton. They had seen one of our funny little A4 printed catalogues and had sent it to WHSmith, who had said: 'Well, if there was a magazine like that we'd probably buy it.' That was where the idea for *Crash* started. It was supposed to come out in Christmas 1983, but there was a lot of trouble getting printers, prices and distribution

set up, so the first issue was eventually released in January 1984.

RG: So why just focus on the Spectrum and not machines like the C64?

RK: Well, the C64 wasn't particularly big then and the Spectrum seemed more accessible.

Oliver Frey: My brother felt that the Spectrum seemed to offer the most games at the time and that just fixating on one type of computer was better than focusing on more.

RK: The Spectrum seemed to be the one to go for and Sinclair had sold 2 million machines by then. We wanted to concentrate on one thing and do it well. It was also the machine that nearly all the Ludlow school kids had, which meant we immediately had this big pool of reviewers who were the target markets. That's what made *Crash* so unique in the first place. As it had three reviews for most games, but also that the average age of the reviewers was 14.

» Oliver Frey

RG: So you mentioned that there were delays to the first issue. How long did you work on it in total?

RK: We started the issue in November and were very naive to think it would be out in December. We didn't really know the magazine trade very well, but yeah, we started in earnest in early November. Matthew Uffindell and myself really sat down and began putting the first reviews together with around eight or nine of the local

school kids. They were given a tape and told to go away and come back the next day with an appraisal of what they thought of it.

RG: So was the management side something you handled yourself?

RK: Newsfield Ltd came to be at the end of 1983 and was myself, Oliver and his brother Franco and Matthew Uffindell and that was it.

OF: We three were the directors and Matthew was…

RK: He was a schoolboy, all right. A college boy.

OF: And the name Newsfield was an off-the-peg name. You could buy companies from certain places and there were ready-made names.

RK: This one was actually called Newsfield Ltd and we thought: 'This seems appropriate. Why change it?'

RG: So where did the name come from?

OF: It was an evening conversation over a meal with the three of us and we were trying to think of a name. I can't remember who it was – I think it was you, Roger – but you came up with the name *Crash*, which of course was a bad name for computers and somehow it sort of stuck. In the games context it sounds good.

RK: Yes, and it led to the fact that the next magazine would have been called *Bang* and the third *Wallop* [both laugh] but a certain Chris Anderson intervened on *Bang* and said: 'No way!'

RG: So why use youngsters to review these games as opposed to proper reviewers?

RK: It was literally a reaction against the likes of *C&VG*. Their reviews always seemed so serious for what they were dealing with. It just seemed stuffy, so we thought

CRASH No. 25
Mikie
Imagine's *Mikie*, about a school tearaway collecting hearts for his girlfriend, happened to coincide with Valentine's Day. A sweet effect was tempered by a stark white background and the action pose of Mikie.

we'd react against that and get the actual target market and see what they thought. Certainly in the first few years we really didn't interfere with what they thought, although we would interfere with their English. Some of them were very good. The likes of Robin Candy and Ben Stone were natural writers. Others, of course, could barely string two words together, but they had a good idea of what the game was.

RG: So because they were the target audiences for the games, you felt they had a better grasp of them?
RK: Absolutely. Also in time readers would learn to appreciate one person's review over another. The format carried over to *Zzap!*, but *Zzap!* was slightly different because they were employees as opposed to standard reviewers. But with *Crash* we always used the local pool as they came through. It also helped that employment law was far more lax than it is today. They were all properly on the books but if they were under 16 they didn't have to pay tax or anything like that, but everything was always handled correctly from a tax point of view. The great thing was that anyone could just come up to the door of *Crash* Towers and say: 'I want to be a reviewer,' and we could just go: 'Well, here's a game. Take it away and we'll see if you're any good.'
OF: A lot got turned away.
RK: And a lot got bored as well.

RG: The first issue apparently went on to sell around 50,000. Is that correct?
RK: Well that was estimated because Wells Gardner & Darton, the distributors, took the first issue and

» Roger Kean

the second issue and went bankrupt, which was a disaster because it meant that we weren't going to get paid. We've only got estimates put together by COMAG, who had picked us up because we'd done so well and that was their estimate, which they thought was pretty astonishing.

RG: Is it true you got a letter from *C&VG* saying something like, 'Well done, lads'?
RK: I don't recall anything like that from *C&VG*, but we did get something similar from Dennis Publishing, who were launching *Your Spectrum*. In fact, they were just a bit behind us, but at the same time they regarded themselves as a very professional magazine. *Sinclair User*, on the other hand, referred to us as 'rural pirates' [laughs], which a few issues later they had good reason to reiterate.

RG: Which leads quite nicely into our next question. Did you think that the 'Unclear User' article would cause you so much trouble?
RK: [laughs] It depends. If Franco were here he'd be saying: 'I told them not to run it.' [more laughing] Graham Kidd came up with the concept, and as he was the chief at the time I ran with it because most of our kids were getting very angry at *Sinclair User* for one reason or another. Rightly or wrongly we ran with it. I remember saying to Franco, 'It's not really going to cause any trouble,' partly because we'd been having very friendly conversations with Bill who was the editor of *Sinclair User* at the time, with

a view to poaching him. In fact he was virtually on board when this issue came out. He really had no alternative but to turn us down after that. It was a bit horrifying when we got an injunction thrown against us and we did lose a fair amount of money on that issue. It cost us £60,000 in apologies.

RG: Tell us about *Crash* during its heyday.
RK: At *Crash* Towers there were three floors – an art floor, editorial floor and production floor – and people were up and down them all the time. I'm sure that Markie [Mark Kendrick] will confirm that it had a very communal feel. We were really buoyed up by the magazine's success and when the figures came back – 106,000 something – there was just stunned silence from everyone. We leapt from something like 80,000 to 106,000 in a three-month period.
OF: We rose rapidly after the 'Unclear User' article.
RK: Yes, we even had support from various software houses. They were all pretty aghast that EMAP had taken action against Newsfield and I think we even received support via advertising revenue. Another aspect that gets overlooked about Newsfield was just how isolated we were. We were typing up our copy, marking it up, sorting out the font size and everything else, sending it to London, to typesetters, getting the galleys back with any spelling errors that we'd done and they'd done and it was costing us a lot of money. Early in 1984 we moved to using Apricot computers for text input and using a local printer and we were able to

» "Chairman Of The Board"

» A fine piece of Frey artwork, for which sadly only a large plate transparency exists now.

CRASH No. 5
Death Star Trench
Inspired by the first *Star Wars* movie, this symbolised *Crash* magazine (white ship) being at the centre of the games action generated by ZX Spectrum software creators, their cassettes being the building blocks of the trench.

bring our price down to about a third of the original cost. We began to expand very rapidly and were able to use graphics film planning to shoot the base pages on a process camera and put it all together, although we couldn't do the cover then. We started developing production people who would just work on the print side and we moved very quickly into full colour as well. Not scanning, but all the tints and coloured lettering and everything like that.

RG: You must have put some insane hours in initially.

RK: Yes, certainly the editorial people kind of worked all hours. *Crash* Towers was usually alight at midnight and into the early dawn. Production staff on the whole managed reasonable working hour days, although this would change as the mags went to print and they'd be working all hours as well.

RG: Let's talk a little about *Crash's* covers. Why did you decide to go with art covers?

» Matthew Uffindell

OF: The thing is *Crash* was supposed to be all about the games and at the time most computer magazines had photos of equipment and it was all rather boring. And we thought: 'Games are just as exciting as the movies so let's treat the games with exciting pictures that you might see at the cinema.' The computers are only there to play the games on. That's my attitude.

RG: Where did the inspiration for most of the early covers come from, because they weren't always based on games…

OF: No, they weren't. To be fair, I have to give Roger credit as the editor, as he'd often come up to me and say: 'Can we do this?'

RK: The cover with *Sherlock Holmes* by Melbourne House was arguably the first one that was based on a game.

OF: The notion there was to have Sherlock Holmes with his big magnifying glass and reflected in it was the name of the game. It was just to make it look a little different. It's like the first cover of *Crash* with the alien playing *Space Invaders*; it's just a little joke.

RG: When you look at the covers now, many of them contain evocative, powerful imagery. Were you ever told that you couldn't put something on the cover?

OF: Well, the *Barbarian* cover certainly comes to mind. It had a barbarian gripping someone here [gesticulates] with a bloody great big sword and WHSmith put it on the top shelf because it was too bloody and violent.

RG: Do you think that sort of notoriety helped to sell the magazine?

OF: Well, my opinion is that boy readers like that sort of thing and it's the adults who don't want to look at covers that are thrilling and exciting and maybe slightly over the top.

RG: How long did the average cover take to put together?

RK: It varied, didn't it? *Crash* 1 took a long time.
OF: After that, though, it was always usually around three days max, because I had to keep up and do illustrations for the inside as well, so you couldn't be too precious. You had to work pretty damn quickly.

RG: So what's your favourite cover?

OF: Well actually my favourite is the original. I just thought it was the simplest and the cleverest. I just think it's funny to have an alien playing *Space Invaders* and it came out looking very powerful.
RK: We also wanted him to stare straight out at the audience, and this was something we wanted to do with all our covers. We wanted people to pick them up and think: 'They're staring at me.'

RG: What about yourself, Roger?

RK: I'd probably side with Oliver and say number 1. There were others that were really powerful. Another of my favourites was when the 128k model came out and we called the cover 'All-Singing, All-Dancing' and it had a curved keyboard with Fred Astaire and Ginger Rogers on it. I always thought that was a good one.

RG: So what about your least favourite?

OF: There was a mud wrestling one featuring Hannah Smith that I had to do that I really didn't like. In fact I was forced to do it because Graeme [Kidd] felt she deserved to be on the cover. I

Frey on Frey
CRASH No. 20
Red Moon
The notion of summing up a game's feel with a simple, in-your-face, image: red moon, big monster, puny humans – this was a very popular cover.

mean it was well painted and everything, but I just thought it was awful. Luckily she took it with her. If something's too cute I just don't like it.

RG: How much pressure did you get from publishers for their games to receive good scores?

RK: I certainly remember Franco being summoned up to see US Gold after trashing something that they saw as being precious. He said: 'Well, there's nothing I can do about that', and they just turned around and said, 'Well, we can pull advertising', to which he said, 'Well, yes you can'. They didn't in the end. We avoided a lot of the pressure, simply because it became the standard for software houses to actually come to Ludlow and show the games to the actual market.

RG: How did your excellent interview with Ultimate come about?

RK: I was astounded to get a phone call from Chris Stamper saying about how much he loved the magazine and I pushed my luck and decided to ask for an interview and the answer was no. Around about the third or fourth issue, however, they rang up and said that we could go and see them. I went with Robin Candy and spent all day at Twycross and it was amazing, because they were certainly one of the most sophisticated developers at the time and we were able to see all the new games that were coming up. I was allowed to take a couple of colour photographs of one or two of the games, but it was all quite sensitive, but in the end we had an excellent relationship with them. It was very hard not to, though, as every game they brought out just went straight to the top.
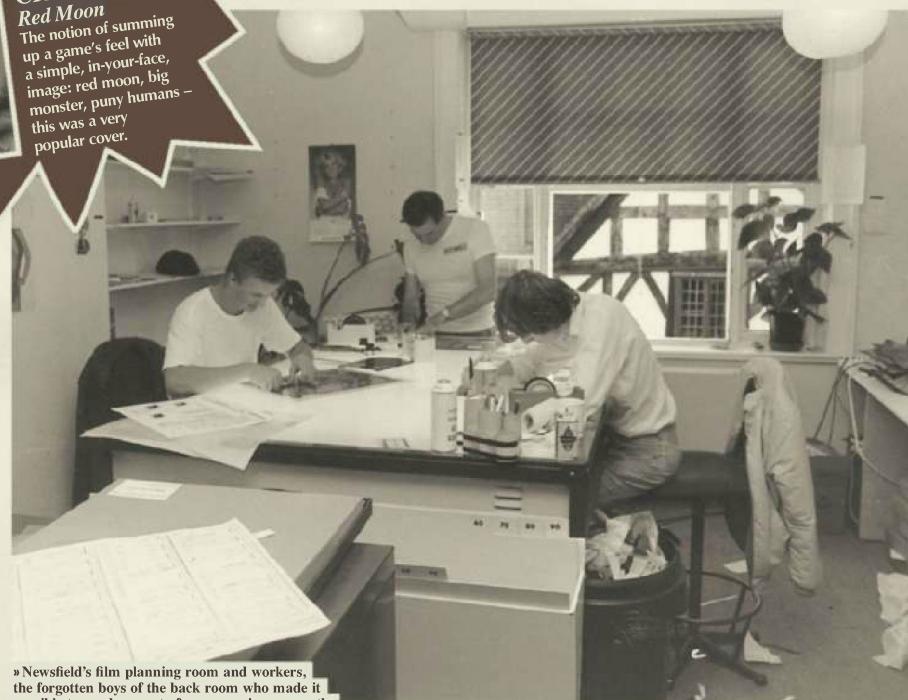
[It's at this moment that we're joined by Matthew Uffindell, who has travelled up to Ludlow at short notice to take part in the interview.]

» Newsfield's film planning room and workers, the forgotten boys of the back room who made it possible to produce up to four magazines a month.

Frey on Frey

CRASH No. 32
Dan Dare
Pilot Of The Future offered me a rare chance to draw one of my childhood heroes the way he appeared in the Fifties in *Eagle*, rather than the revamped Dare I'd had to draw in the early Eighties for IPC. It was great fun!

» Rich Eddy and Robin Candy showing off the new Thalamus Games T-shirts before the launch of the software house. (1986)

Oli Online

If you're a fan of Oliver's powerful and evocative art, you may want to visit his brand new website. The Art of Oliver Frey features a selection of some of his greatest work from the past two decades and is an essential visit for anyone who's been impressed with his stunning imagery. This is also the first time that people have been able to buy original prints, so if there's a particular *Crash*, *Zzap!* or *Amtix* cover that you fell in love with back in the day, there's never been a better time to own the original and hang it on your wall for all to admire.

New art is being added all the time, and Oliver is also making it easy to see what has already been sold, so if you're looking for a specific piece of art and you can't find it, odds are it will be appearing online very, very soon. Visit www.oliverfreyart.com for more information.

RG: So, Matthew, how did you become involved with *Crash*?

Matthew Uffindell: It happened by accident, really. I heard that they were selling games on their doorstep and I thought: 'Well, I'll have a little wander down and see what it's all about.' I knocked on the door, we had a chat and I bought a game. I went back the following week and bought another game, and we had another chat and Roger said: 'Do you want to review some games?' So I did that, and then it was like, 'So, do you want a job?' and it just went on from there and we ended up reviewing thousands upon thousands of games.

RG: So what were the prices like for reviewing games?

MU: We did it really for the love of it. We got to play these games.

RK: Once we'd got into King's Street by issue 4 we started to put things on an official footing and I think we paid a fiver per review.

RG: That's actually pretty bloody good. We'd have had to wash about 20 cars to earn that sort of money back in the day.

RK: I definitely think they got reasonably paid for the work. But you're right: the first three or four issues were all about the love of being able to actually just play the game. That was mainly because everything was still so… amateurish? I guess that's the word you could use, but once we realised the magazine was going places we had to start getting serious in terms of management handling.

RG: What was it like working on *Crash* in the early issues?

MU: It was brilliant, actually, because instead of working it was like loving chocolates and working at a chocolate factory type of scenario. It was more of a family sort of environment and you'd be like: 'What's coming in today, Roger?' And you'd go and have a look at it and it was always exciting, especially when it was the Ultimate titles. We just played games to death really. It wasn't

really work and it certainly wasn't a 9 till 5 job; it was just something I used to really enjoy doing. It was also cool the fact that you got to play games so long before your friends did.

RG: Did you have the relevant training before you took your position full time?

MU: Lots of it was passion and knowledge. I remember when *Space Invaders* came into the arcades, the first time I got to play *Pong*, so I had a good background of what was required to make things tick. Everyone was educated to a certain level. In fact I remember walking around and simply dictating to Roger.

RK: I'd be using a typewriter initially, typing away and Matthew would be walking around going, 'Hmmm, right…' [everyone laughs]

MU: It was very much like that and I'd just be pacing backwards and forwards spewing out all this stuff.

RG: What was it like grabbing screenshots? It was quite a convoluted process…

MU: Basically you had the camera and it was all about finding something that would whet the appetite for the game. You couldn't have a load of pictures on the page, so you just had to choose an image that would be of interest to the reader.

RK: Usually the photographs were taken in a second session in the sense that you'd normally play the game first and hopefully get to the end, although the timescale meant this wasn't always possible.

RG: So how long did you spend reviewing games on average?

MU: Well, you would always try to complete a game within the timescale. In fact I'd often take a game home at night and play through the night if need be, just because I loved to. My mum and dad would always moan. I remember one time when we were getting the Christmas special out you'd go in at like 7:00 in the morning and you'd then work through till four [in the morning] and then come in at 7:00 again the next day. You'd end up with a three-hour snooze, just because the magazines were stacked up over

CRASH

Old Faces

Nick Roberts:
Then: *Staff writer*
Now: *Business Development Manager*

How did you get your job on *Crash*?
I was a reader picking up his monthly copy for 95p when I discovered that the Playing Tips writer, Hannah Smith, was leaving. I sent in a letter to Roger Kean, on Alphacom 32 thermal paper printed out from my Spectrum, asking if I could take over. That piece of paper set me off on a career that has lasted 22 years as Roger took me on as an after-school reviewer.

What was it like on the magazine?
It was like being a member of an exclusive club, and very rock and roll. There was a great bunch of people around at the time – Robin Candy, Mike Dunn, Ben Stone, Julian Rignall... – and many of them are still big in publishing and videogames today. We used to have a great time at the PCW Show, too, where we were made to feel like pop stars as readers queued up for autographs! That's weird and doesn't happen much these days.

Aren't you *Crash*'s longest-running writer?
Yes, that's right. I started on issue 47 and wrote for the magazine until issue 98 when the company went bust. 51 issues, man and boy! I worked my way up to assistant editor by the end.

Mark Kendrick:
Then: *Art editor*
Now: *Creative director*

What was it like working at *Crash*?
I learned very quickly that this was unlike any working environment that I'd known. It was a wild time, when computer gaming was the new rock and roll and the people who worked on them were like superstars. Just reading a copy of *Crash* you, even now, get a sense of 'belonging' to a unique group of people. As crazy as this may seem, I'm really not overstating this, as I believe this injected the magazines with magic, which made them what they were.

What did you learn from working with Oli?
Perhaps the most important thing I learnt from Oli was to have confidence in your own style. His work is so distinctive, and against a backdrop of so many other styles going on at the time, his work has continued to be enduring. Overall, though, I learned the visual aspects of magazines, and in particular how cover structure and the balance between type and art is essential.

Why do you think *Crash* is still held with such high esteem?
It was the right product, at the right time, with the right tone. *Crash* came along to fuel the excitement of videogames and gave a sense of community to a new, massively expanding hobby, just when home computing became accessible to all. I look back now and I really think it would be tough for another 'independent' videogames magazine to top 100,000 sales every month ever again. They will forever be the giants of single-format games titles.

» 2 King Street, Ludlow: *Crash* and *Zzap!* Towers. Newsfield occupied the three floors above Victoria Wine from May 1985 until July 1989, when everything moved a mile away to bigger premises in Case Mill.

Christmas and you'd do two or three in a very short space of time.
RK: Famously, Gary Liddon actually lived in King's Street, sleeping under one of the art tables for about two months until we finally decided that we couldn't stand it any longer and kicked him out.

RG: You've been talking about the Christmas specials. Why did you decide to start doing Christmas-themed covers?
OF: It just made perfect sense because it was Christmas. We always tried to accumulate as many pounds worth of prizes as possible as well to make it more enticing. Also, I used to find the covers really challenging, as you always had to find interesting ways of combining Santa Claus with aliens.
RK: I was actually a fan of the Amstrad Christmas cover as it had some really realistic depictions of the editorial team on it.

RG: The editorial team would always have a strong presence within the magazine and often appeared on the cover. Do you think this helped build the relationship with your readers?
MU: Absolutely, and I think that it's identifying that we're just normal people, and if you like shoot-'em-ups and you knew Julian [Rignall] liked it, you knew that it was going to be a good game.
RK: It worked particularly well on *Zzap!*, because by then there were fixed reviewers and not these pools of roaming reporters. I think being able to identify with a reviewer's tastes and preferences really helped a lot and again made the likes of *Crash* and *Zzap!* stand apart from their competitors.

RG: So, with three people

reviewing the same game, was there much of a collaboration process on the reviews?
MU: In *Crash* in particular I used to play the game to death, Roger would play it and watch me play the game, and another reviewer would play the game to death as well. They were all fairly independent.
RK: I remember it could sometimes get quite heated with everyone disagreeing with each other on certain games and then I'd have to step in, not to get them to agree, but to get them to agree to disagree with each other. I think there were definitely times when someone would go off in a huff and say, 'Well, you can write what you like, then', but they always came back and ended up writing what they were going to say in the first place.

RG: Now one of the most famous members of the editorial team on *Crash* wasn't even real. How did Lloyd Mangram come about?
MU: I could have sworn I saw him the other day in town. [everyone starts laughing]
RK: Well, there is a Lloyd's Pharmacy [in the town], as someone pointed out to us online when they were in Ludlow. They thought he'd gone into the pharmacy business.

» Franco Frey doing techie things with a Spectrum – mostly removing sandwich crumbs from the rubber key matrix... (1986)
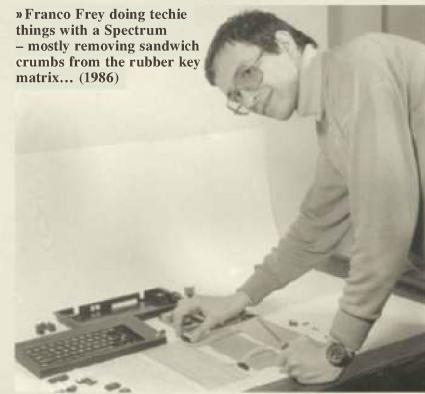
RG: Was it just a way of making the editorial team look bigger?
RK: Of course. [more laughing] We were such a tiny team that we needed to create credible other people.
MU: It was also a useful way of airing some of the views and opinions that we weren't quite sure about.
RK: Lloyd's main job was the letters page. We'd always intended to have a reasonable number of pages for letters and it required a character to run those pages as if it was the love of his life, just as it was for the reviewers to review their games. And also to give snappy responses to sassy 14-year-olds who thought they knew it all.

RG: How many letters did you get on average a month?
RK: By issue 5 we were getting around 300 to 500 letters a month. By the time we were hitting a 106,000 ABC it was impossible to respond. We were far and away Ludlow Post Office's biggest customer.

Frey on Frey
CRASH No. 41
Barbarian
I'll admit that I got rather carried away on the blood and impending horror that features on this *Barbarian* cover. In fact, WHSmith complained and gave us stern warnings over future re-offending...

Frey on Frey

CRASH No. 6

3D Feature
To illustrate a look at perspective in games we decided to achieve a 3D effect by photographing three layers painted by me to allow the shift in focus to create the three-dimensional look.

» Matthew Uffindell taking screenshots for a review, days after moving the office from Old Street to King Street. (Mid-1984)

» The target market getting their first look at *Crash* #2, the *Kong* cover. (1984)

Crash. The followers speak

Despite the fact that it's now over a quarter of a century old, *Crash* and sister mag *Zzap!64* are still held in high esteem by a great many *Retro Gamer* readers. We've already heard first-hand why Oliver, Roger and Matthew felt the magazine was a success, but what about its still-loyal fan base?

RG: Is it true that stores were asking for your proofs so they could see early review scores and stock their shelves accordingly? That must have felt good.

RK: Yes that did happen for a couple of years or more. Once buyers had cottoned on to *Crash* it happened a lot. We would send them the early proofs of particular reviews and they made buying and stocking decisions on those reviews. Of course it felt good. It's a little easy to be smug about it, but we don't know of any other magazines that were doing it at the time or getting that sort of attention.

RG: Where did the idea for The Terminal Man originate?

OF: Because the magazine was aimed at teenage boys and was about videogames I somehow felt that it needed a comic strip. Roger agreed, but he did feel that I was taking on quite a lot, as it was effectively four extra pages every month. I can't remember quite how but I managed to get hold of Kelvin Gosnell who was the editor of *2000 AD* at one point and he came up with the idea for The Terminal Man. He wrote the first story all by himself.

RG: So it went away, came back and then…

OF: It stopped.

RG: So what happened, and was it a hard decision to make?

OF: We decided – well, I decided – that he ought to come back. I started writing the stories and what happened was I came under so much time pressure that I wasn't keeping up and unfortunately it sort of stopped midstream.

RK: It was a hard decision.

OF: But on the other hand, I didn't want to have a nervous breakdown.

RK: By then we had five magazines and other stuff on the table of which Oliver was art director, and it

was quite clear it had to stop. In fact, it took him more time doing four pages of The Terminal Man every month than working on an actual cover.

RG: So how do you think videogame magazines compare now to the likes of Crash and Zzap!64?

RK: I would have to be honest and say that I rarely ever look at them, so I'm not really the best judge. What I do see, however, is that they're far more sophisticated and you can do fabulous things today that would have taken us hours back in the day. We used every trick in the book to get as much colour in the magazine as possible and today that's not something that people even consider.

MU: As far as content goes, it's quite similar really. You have your review and then your verdict and maybe an award. Has it changed? I think what's really changed is… How shall I put this? We felt connected with our readers; I'm not so certain if these people feel as connected with their readers. I'll be honest with you: I never buy a magazine for games reviews now. I just type in a game on the internet and get given a list of reviews to read.

RG: *Crash* had a particularly big influence on later games magazines. Is this something you'd agree with?

RK: I'd go further. I'd say that not necessarily the look or the layout, but the attitude of *Crash* informed magazines like Emap's *Empire*, with this notion that you don't have to be serious and detailed. When *Empire* came out I remember thinking that the biggest compliment was seeing '*Empire* Towers' and thinking, 'Where did that come from?' I think the attitude informed Emap a lot, and yes, it certainly went a way to changing how videogame magazines looked and felt.

OF: For me I think what really makes a magazine work, especially for young readers, is to make them feel as much a part of the magazine's world as possible. That's all we ever tried to do with *Crash*.

■ Forum ID: the_hawk
For me it was the beautiful artwork, *Lunar Jetman* and the slightly more trustworthy reviews than *Your Sinclair* and *Sinclair User*. It was NEVER as funny as *Your Sinclair*, though.

■ Forum ID: SirClive
It was written by gamers, rather than journalists, so you could trust it. It was basically a commercial fanzine and that gave it a unique feel.

■ Forum ID: Beakerzoid
The layout, design, and the writing all combined to give a trustworthy source of info and reviews on all things Speccy related. Yes, *Your Sinclair* was funnier, but *Crash* was the more reliable source. As SirClive so rightly points out, it was written by people who genuinely had a love for the subject they were writing about. It was such as shame when all the mags began their 'free games' each issue, as it inevitably led to *Crash* becoming nothing more than a small bundle of papers with a tape stuck to the front.

■ Forum ID: psj3809
I just loved the layout and design. Looking at scans now brings back a ton of great memories. I trusted their reviews – yeah, there was the odd disaster, like *Zoids*. It had tons of playing tips and pokes, and some great maps every month and a lot of exclusives with previews of new games and interviews.
  Huge amount of disappointment when I went to WHSmith and it wasn't there for whatever reason. On the flip-side, the Christmas specials really were amazing back then: tons of pages and it kept you reading for ages. As other people have said it was written by fans that had a genuine love for the Speccy. Brilliant magazine until it went to the pamphlet with the tape on the cover.
  Perfect covers by Oli Frey, great reviews, great tips/maps, and back in the Eighties you loved seeing all the game adverts!

DYNAMITE DAN

TICK, TICK, TICK, BOOM!

HISTORY

It's funny to think that when *Dynamite Dan* was released in 1985, UK gaming magazines were already predicting the death of the platform game.

The best of the breed was the previous year's *Jet Set Willy* – a squillion-selling hit from the alien mind of Matthew Smith – but the market had since stagnated thanks to dozens of cheapo clones attempting to replicate Smith's infernal code. The nadir was *Jet Set Willy II,* an embarrassing sequel that added some extra screens and bugger all else. Thank the good Lord then for *Dynamite Dan,* a platformer released at the same time as *Jet Set Willy II* that was a far worthier carrier of Miner Willy's mantle.

Like *Jet Set Willy,* the game takes place in a mansion inhabited by all manner of meanies. The typically irrelevant plot reveals that the dastardly Dr Blitzen, an evil genius with designs on world domination, owns the mansion. It's up to top secret agent Dan to pilfer the plans to a deadly ray-gun from Blitzen's safe; to gain access he must find eight sticks of dynamite scattered around the house. Blitzen's retreat is massive, but there's a handy lift, which Dan can use to access each floor, and a wooden raft that transports him through the mansion's sewer system. The player is given ten lives to get the job done, but it's not nearly enough.

It's easy to get excited about *Dynamite Dan,* even when revisiting it now. The graphics are highly detailed, smoothly animated and super colourful, with barely a hint of the dreaded colour clash. Each screen is alive and it makes you wonder how programmer Rod Bowkett managed to cram so much stuff into the Speccy's tiny brain. It's a very tight, very smart piece of programming: a product from that magic period when developers were finally beginning to master Sir Clive's machine.

It would be wrong to suggest that the game saved the platformer from an early death, but it reignited an ailing genre. *Dynamite Dan* lit the fuse in more ways than one.
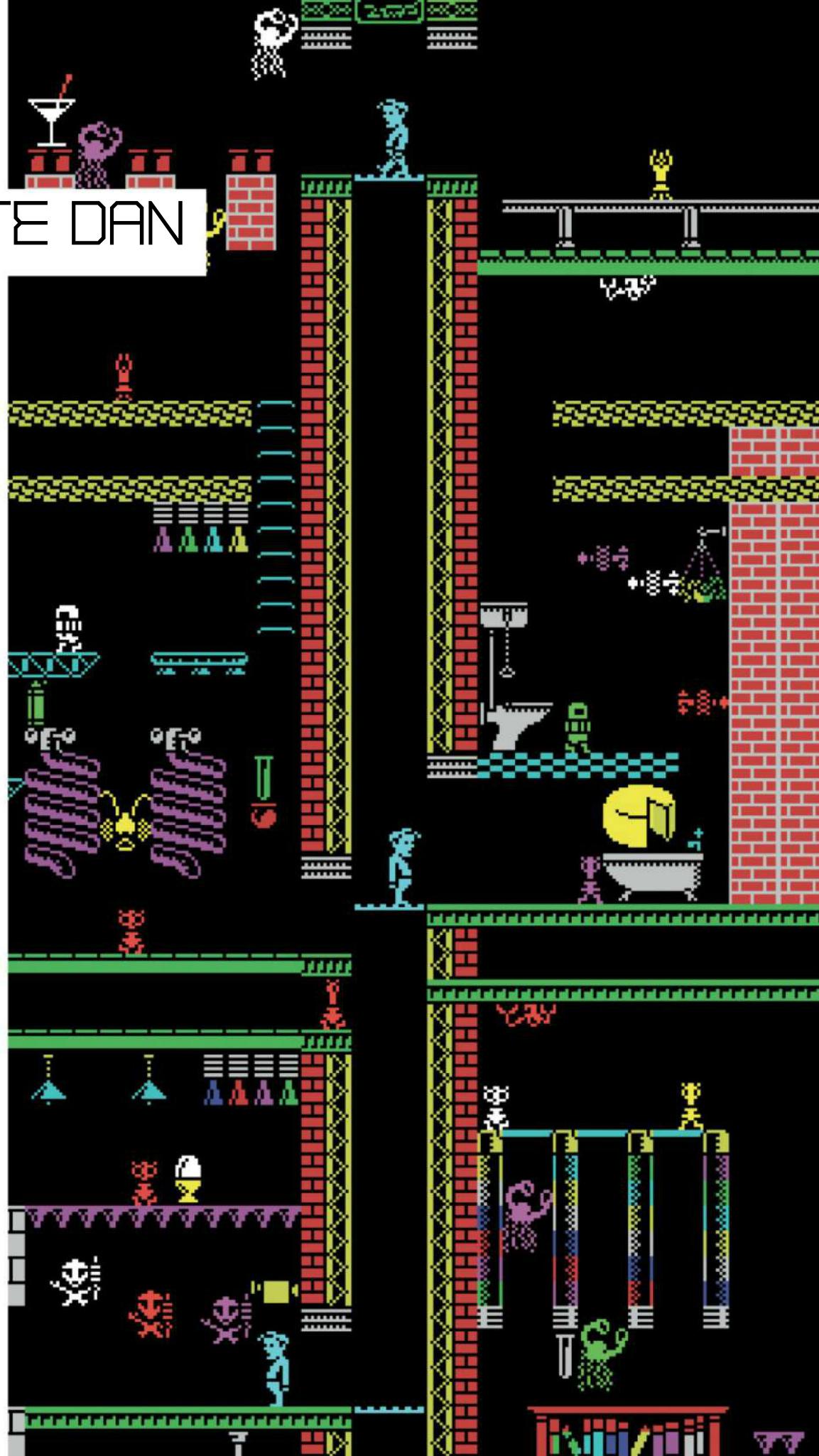
THE ULTIMATE HERO

A Complete History of Sabreman

Although Miner Willy is arguably the Spectrum's best known videogame character, Ultimate's intrepid explorer Sabreman nevertheless made his own huge impact on Sir Clive's machine. Stuart Hunt investigates the truths and myths behind Ultimate's most enduring mascot

Trying to uncover any information about the *Sabreman* series, Ultimate Play The Game, or the Stamper brothers has always proven incredibly difficult. The brothers have always been famously forward when it comes to stepping away from press attention, only giving the occasional rare interview to very lucky and select publications – most notably *Crash*, for whom the brothers had a bit of a soft spot – but giving a charmingly frank and reasonable explanation why it is that they shirk the limelight. The reason boils down to two things: the first is time – perfectly understandable, of course, seeing that for many years Tim and Chris were managing director and technical director, respectively, for one of the biggest videogame studios in Britain; and the second is that the brothers have always felt that their games should do the talking. But while the

Stampers' silence is frustrating for anyone trying to glean information about their games, it was this air of mystique surrounding the company that drove the success of Ultimate and its games. And no Ultimate franchise demonstrated this thinking better than the *Sabreman* series.

In 1980, Tim Stamper, age 21, was studying physics and electronics at Loughborough University. After becoming interested in the growing advent of micro technology, he decided to quit his course and took a number of jobs working on arcade circuit boards for various firms. When Chris asked his brother one day to assist him with one of his arcade projects, Tim was immediately hooked. And with the help of Tim's girlfriend (now wife), Carol Ward, and college friend John Latchbury, the brothers decided to form the Leicestershire-based company Ashby Computers and Graphics (ACG) in the exotic-sounding town of Ashby-de-la-Zouch. Armed with a small team of software engineers, ACG started

developing arcade conversion kits for license to various companies. In terms of *Sabreman*'s history, probably their most notable arcade project was the quirky 1983 title *Dingo*, which the Stampers produced in collaboration with Japanese developer Jaleco. Assuming the role of something that resembled a koala, your mission was to collect all the fruit scattered on colourful single-screen levels while avoiding things that looked like hopping pink unicorns – though it's feasible that these could be the titular dingos, as *Sabre Wulf* later showed that the Stampers weren't averse to giving enemies top billing. *Dingo* played a lot like *Pac-Man* but had visuals awash with the same intricate detail and colour that we would later associate with the tropical screens in *Sabre Wulf*.

Eventually, though, the Stampers decided that coin-ops weren't marketable and so focused their efforts on the emerging British home computer scene instead, concentrating on writing games for the Spectrum and doing so under the label Ultimate Play The Game. Like all successful videogame partnerships, Tim and Chris took on different roles to make Ultimate a success. Tim was largely responsible for the in-game graphics and packaging illustrations, while Chris, the older of the two, took on most of the coding and programming duties.

Ultimate's first commercial hit came in 1983 with the release of the 16K Spectrum game *Jetpac*. This was shortly followed by the bug-zapping title *Pssst* and the seminal adventure maze smash *Atic Atac*. In a time when most home computer games were rudimentary variants of arcade titles, the trend that home computer and videogames should offer more depth and variety was first starting to happen with the release of Ultimate's early titles. The Stampers' games were sprawling arcade-style releases that couldn't be played in arcades, and they felt more epic than anything that had come before.

Rare Heroes

We take a look back at Rare's impressive portfolio of games to remember some more of its heroes

Battletoads
Spawning five games, all famed for their humour, variety and insane difficulty, the Battletoads – Rash, Pimple and Zitz – proved a popular videogame rival to the Teenage Mutant Ninja Turtles, and a great technical and creative showcase for Rare.

Jetman
While very little is known about the character, Jetman was Ultimate's first videogame hero and went on to become a popular gaming character on the Spectrum. His popularity eventually led to him having his own comic strip series in *Crash* magazine.

The Cast of Killer Instinct
Killer Instinct featured a roster of memorable fighters, including a semi-cameo from Sabreman himself (in wulf form). The series remains a popular 2D brawler, and Rare has teased fans with rumours of a third game for years.

Joanna Dark
Rare performed magic once again with the sultry agent Joanna Dark. Not since the arrival of the intergalactic bounty hunter Samus Aran – and it's very likely that she had a big influence on Joanna – had gamers seen such a strong and believable leading lady.

Mr Pants
Originally a crude mascot on Rare's website, the character later received his own GBA puzzler titled *It's Mr Pants*. Originally unveiled as *Donkey Kong Coconut Crackers*, the theme had to be altered following Rare's purchase by Microsoft in 2002.

Diddy Kong
Only Rare could breathe new life into a Nintendo character with such aplomb. *Donkey Kong Country* helped put Rare on the map, bring Donkey Kong back to life, and cement Rare's relationship with Nintendo. Diddy represents an indelible footprint of that relationship.

Banjo and Kazooie
After gamers were left dumbstruck by *Super Mario 64*, Rare matched Nintendo's classic platformer with one of its own. Gorgeous and massive in scope, the original *Banjo-Kazooie* created a popular videogame double act as they worked as a team to solve puzzles.

Rattle and Roll
While Rare handled the NES conversion of *Marble Madness*, it had already touched on the isometric puzzle game formula with *Bubbler*. However, it would really surpass itself with *Snake Rattle N Roll*, with its addictive gameplay and surrealist humour.

Kuros the knight
Spanning a series of four games, of which Rare only developed the first and last, *Wizards & Warriors* games were hack-and-slash adventure affairs with Rare's trademark emphasis on collecting things. In each title you assumed the role of the knight Kuros.

Jet Force Gemini
Jet Force Gemini was an epic third-person action game that borrowed elements from *Sabre Wulf*, *Banjo-Kazooie* and *GoldenEye*. Visually breathtaking, the game split opinion with fans, which is perhaps why Rare has yet to do anything else with the game's heroes.

Sir Arthur Pendragon

While Ultimate favoured the Spectrum, the company produced a number of Commodore 64 titles. The most well-known offerings starred this recurring adventuring aristocrat across a series of action/puzzle games.

Conker

Conker underwent a dramatic transformation for Rare's final N64 title. Originally a cutesy platform hero, Rare decided to rethink the character and turned him into a swearing antihero in an adventure that smacked a little of *Dude, Where's My Car?*.
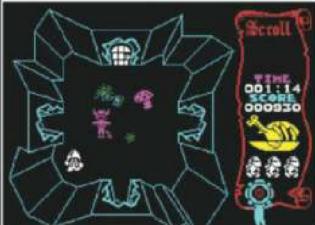
Very quickly Ultimate positioned itself as an important and shining player in Spectrum gaming. While the company did write a number of Commodore-specific titles over the years, the Stampers chose not to handle CPC, MSX, BBC Micro and C64 conversions of their hit Spectrum titles, but farm them out to third-party companies instead – most notably *Firebird*, which handled the C64 conversions of *Sabre Wulf* and *Underwurlde*. Speaking to *The Games Machine* in March 1988, Chris Stamper explained why this was.

"I never got to know [the C64] that much. You tend to focus on one area, and I think I was a Z80 programmer to start off with, and so I adopted the Spectrum. I had no trouble with 6502 or anything like that – the Nintendo 6502 – but I was working on the Spectrum and there were other people doing the 64."

Tim, who is said to be the more business-minded of the pair, followed up with a slightly more mercantile reasoning: "We were interested in producing original games, and people wanted us to produce original product, so work for the 64 was really a job for somebody else. We could only have produced one type a year if we did all the conversions ourselves."

In 1984, the first of the four games that make up the Spectrum *Sabreman* series was released. *Sabre Wulf* was a colourful action game that introduced

» Some reviewers criticised *Sabre Wulf* for simply being *Atic Atac* in wulf's clothing.

» Ultimate's *Knight Lore* single-handedly revolutionised microcomputer gaming.

the world to the game's iconic pith-helmeted hero. Playing the role of a stumpy adventurer named Sabreman, your mission was to navigate through a colourful 2D tropical maze, made up of 256 flip-screens, to seek four pieces of the ancient ACG amulet – a subtle nod to Ashby Computers and Graphics – that granted him safe passage by the Keeper guarding the exit to the maze. During his mission, Sabreman had to be watchful for enemy insects and tropical animals and defeat them using his trusty sabre – or, when tackling some of the bigger foes, such as hippos and boars, by frightening them with his fencing skills. On top of this, he also had to be watchful for the titular Sabre Wulf, an invincible enemy that appeared in certain areas of the maze, and had to be careful not to get caught dawdling either as a deadly sentient fire would flash up to usher him on his way. *Sabre Wulf* was essentially an interactive maze, but one brimming with intricate detail,

gobsmacking colour and some satisfying hack-and-slash combat – although the fact that Sabreman couldn't attack enemies above and beneath him was a bit problematic. Look beneath its bright shrubbery and there were also some subtle arcade accents to be found, likely influenced by the Stampers' arcade past. The game was two-player – though only in the Speccy and C64 versions and not at the same time – and its display had a clear and clean arcade feel to its layout. The game was full-screen with no intrusive object screens or inventory panels to encroach on your peripheral vision, with the high score tallies positioned at the top corners of the screen.

Sabre Wulf was the first Ultimate title to be adorned with the iconic Ultimate Play The Game frame packaging, and to also ditch the traditional £5.50 price point and retail at £9.95. In an interview with *Crash*, Tim revealed why it was that they took the gamble to increase *Sabre Wulf*'s price.

"We were having a severe problem with the number of [illegal] copies. And I think going from £5.50 to £9.95 was a bold step we took. The price was gradually creeping up, and I thought we might go the whole way and put the product out at a price that was realistic for the time involved in creating it. We were trying to create an incentive for the person who paid £9.95 to say, 'Hey, you're not copying my game!'"

The strategy worked. *Sabre Wulf* smashed all sales records for Ultimate, and even surpassed Activision's monster smash *Ghostbusters*. More importantly, though, Chris and Tim had succeeded in coming up with a classic and
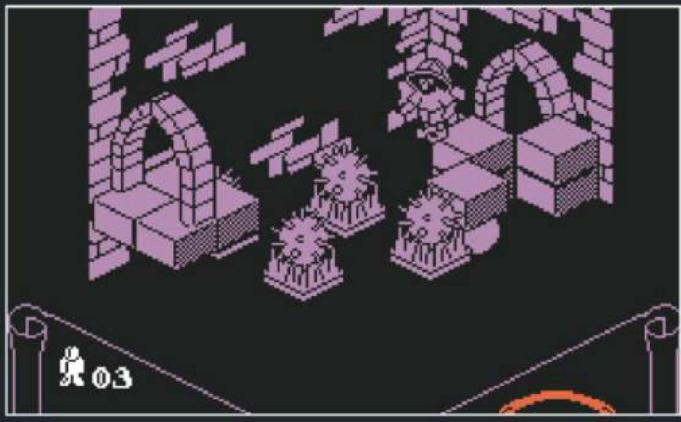
» Ultimate's Filmation technique not only allowed for impressive visuals, but also let you move objects around.

» *Pentagram* had Sabreman drop the adventure threads for a Gandalf fancy dress costume.

» Look out it's the titular wulf. He's no ordinary wolf either, as Sabreman contracts lycanthropy from him.

lasting videogame hero in Sabreman. Boasting a memorable name and quirky look, thanks to his sword and pith helmet, Sabreman not only slotted perfectly into the archetypal mould of the 8-bit videogame hero – essentially an everyman character with a large nose and a hat – but the character's clean and chunky design also partnered brilliantly with the technical limitations of the Spectrum.

But despite its popularity and commercial success, there was one criticism that some reviewers levelled at *Sabre Wulf*. Many argued that it was too similar to the Stampers' previous smash *Atic Atac*. Despite the improvement in visuals and the tweak in perspective, some felt that the game borrowed heavily from *Atic Atac*'s maze layout and criticised the Stampers for not pushing the envelope quite as far as they had with their previous titles. With that in mind, it's no surprise that, for the next game in the series, the Stampers took a slightly different approach to the game. *Underwurlde* featured a brand new side-on perspective, which gave the game an almost platform game

appearance. The gameplay also adhered to this platformer-style approach, with a fidgety-feeling Sabreman spelunking and jumping through the game's castle and deep through its underground caverns. While the viewpoint and gameplay were once again tweaked, *Underwurlde* still retained Ultimate's signature flip-screen design, this time across a colossal 597 screens, making for another sprawling adventure. Perhaps the biggest change that the Stampers introduced with *Underwurlde* was disallowing enemies from directly killing or causing damage to Sabreman. Instead, they could only harm him by pushing him to his death. The story found Sabreman trapped in the cavernous Underwurlde. Without his trusty sword for protection, Sabreman had to defeat one of three guardians blocking his escape by finding three weapons – a knife, dagger and torch – hidden in the caves. It was your job to help Sabreman find and use the right weapon against the corresponding demon guarding one of the exits. With three possible exits in the game, *Underwurlde* had three different endings and each end sequence led the player onto the path of the next three games that were planned for the *Sabreman* series. While Sandy White pipped the Stampers to the post by releasing the first 3D

isometric game on the Spectrum with *Ant Attack*, Ultimate's astonishing *Knight Lore*, the third title in the *Sabreman* saga, blew away all competition. Nothing previously released on the Spectrum came close to touching *Knight Lore* on a graphical or technical level. Set inside the exquisitely detailed rooms of Melkhior's castle and running from Ultimate's impressive Filmation engine, *Knight Lore* oozed atmosphere and quality from every pixel. But it wasn't just the groundbreaking visuals and cartoon look that impressed and amazed fans; a couple of interesting changes had occurred in Sabreman too. Fully realised in 3D, and with only his eyeballs and big round nose visible from underneath his pith helmet, this more cartoon Sabreman was perfectly suited to the game's astonishing new design style. And that wasn't all, as after being bitten by the Sabre Wulf, Sabreman is left battling with lycanthropy, transforming him into a werewolf at nightfall. The game's premise found the adventurer searching the wizard's castle for the items needed to rid him of his lupine state. With a time limit of 40 days and nights to complete his mission, which dries up pretty quickly in the game world, timing and planning was needed to solve the tricky action-based puzzles and glean the required ingredients. The innovative

Filmation engine also allowed Sabreman to interact with objects in the game, adding a real sense of freedom to the game and its puzzles; something never really seen before on the Spectrum. Ultimate also ensured that Sabreman's lycanthropy formed an integral part of the gameplay. In his wulf state, Sabreman could leap higher to solve puzzles that would otherwise be impossible, but was more vulnerable to particular types of enemy. But perhaps the most shocking thing about *Knight Lore* was its timing. Speaking to *Crash*, the Stampers later made the startling revelation that *Knight Lore* was written before *Sabre Wulf* was even finished. The brothers had admitted to purposely holding back the game's release for fear that no one would buy *Sabre Wulf* after seeing the new engine in action.

"*Knight Lore* was finished before *Sabre Wulf*," said Tim, speaking to *Crash*, "but we decided that the market wasn't ready for it. Because if we released *Knight Lore* and *Alien 8* – which was already half-finished – we wouldn't have sold *Sabre Wulf*. So we sold *Sabre Wulf*, which was a colossal success, and then released the other two. There was a little bit of careful planning in there. But they could have had *Knight Lore* possibly a year earlier – we just had to sit on it because everyone else was so far behind."

Given the popularity of the Filmation engine, and the fact that a number

of software houses and programmers quickly set about trying to capitalise on its popularity, the Stampers saw no reason not to do the same, and so released more Filmation titles over the coming years including *Alien 8* (1985), *Nightshade* (1985) and later *Gunfright* (1986). It was also around this time that the Stampers set up a sister company to Ultimate named Rare Designs of the Future, which they later curtailed to the far snappier name of Rare. It transpired that as far back as 1983, while busy writing *Jetpac*, the Stampers had kept a watchful eye on the emerging Japanese videogame market, and had been secretly getting to grips with programming for Nintendo's Famicom console. The Stampers had once again predicted another big shift that was about to occur in the British game market. The thinking behind this new enterprise was that while Ultimate would handle the brothers' microcomputer output, all Nintendo and console releases would fall to Rare. This turned out to be a savvy move by the brothers, because by 1986, around the release of *Gunfright*, reviewers were expressing concerns about Ultimate's dependence on its Filmation engine. Eventually, realising that there was nowhere else they could take the Spectrum, and that it wasn't beneficial

to company expansion to continue producing games on the machine, Tim and Chris decided to sell part of Ultimate to US Gold, remaining majority shareholders in the company, and turn their attentions to Rare and breaking the console market.

Because its release fell after US Gold's part-acquisition of Ultimate, there has always been doubt over the true authors of the next game in the *Sabreman* series. *Pentagram*'s story found Sabreman on a mission to locate the titular star-shaped artefact. To complete his mission, he had to fix five broken obelisks using magically charged well water and then collect five pieces of stone to make up the magical relic. After curing him of his lycanthropy, Sabreman befriends the magician Melkhior and chooses to become his apprentice. Now a wizard, *Pentagram* marked the first time in the series that Sabreman ditched his adventuring gear, opting to wear a wizard robe and grow a beard instead.

Given that *Pentagram* didn't quite match up to the splendour of previous *Sabreman* games, and that, in another interview with *Crash*, Chris named *Gunfright* as the final game that the brothers had worked on together, its believed that *Pentagram* was either written by Tim or Chris alone, or by a team of US Gold programmers.

The Ultimate Filmation Games

Ultimate's engine powered some of the most visually impressive Spectrum games and set the company on its future path of technical innovation

Alien 8 1984
Essentially *Knight Lore* set in outer space, the Stampers' second Filmation title saw players control a square-looking maintenance droid whose mission is to keep alive the sleeping crew of a spaceship by finding the missing components needed to fix the ship's cryogenic life support machine. While its formula is similar to *Knight Lore*, the sci-fi theme feels unique enough to make it a classic in its own right. The Stampers later revealed that it was well into development before the release of *Sabre Wulf*.

Nightshade 1985
Often mistaken as an episode in the *Sabreman* series, *Nightshade* was, in fact, a standalone adventure game. Essentially a mixture of *Underwurlde* and *Knight Lore*, but using scrolling screens as opposed to static ones, you played an adventurer who must rid a village of evil by vanquishing four demons. Not a patch on *Knight Lore*, and in fact quite inferior in many ways, this was the first time that voices of dissent were really starting to be heard from Ultimate fans.

Gunfright 1986
Whereas *Alien 8* launched Filmation into space, *Gunfright* shifted the engine to the Wild West. Playing the role of a town sheriff, who looks remarkably like Sabreman – possibly an ancestor – your mission was to clean up a town riddled with outlaws. Split into three stages, the first saw you practising your aim by shooting money bags, the second saw players patrolling the streets to find and capture nine wanted fugitives, and the final one finished in a dramatic gunfight.

Bubbler 1987
The most technically advanced of all the Filmation titles, this sought-after Speccy and Amstrad title has fetched some astonishing prices on eBay and was the second game of the three post-Stamper Ultimate games. *Bubbler* was essentially a Filmation take on titles such as *Spindizzy* and *Marble Madness*. It finds the player transformed into a globule of slime by an evil wizard, and trying to cure this gluey state by corking bottles of magic to weaken his oppressor.

Sabreman Timeline

Sabre Wulf
The first *Sabreman* title was a 2D flip-screen adventure. It found pith-helmeted hero Sabreman trying to find pieces of an ancient amulet and escape the titular Sabre Wulf.

Underwurlde
A new direction and new perspective for Sabreman saw him jumping around the dank cavernous world of Underwurlde in an enjoyable side-scrolling 2D platformer.

Knight Lore
It was the game that changed the face of Spectrum gaming forever. This pioneering isometric 3D adventure smash saw Sabreman trying to cure himself of lycanthropy after being bitten by the Sabre Wulf.

1984   1984

Confusing matters further, of course, is the fact that the brothers had a history of not releasing games in order of their completion – remember that they had previously held back the release of *Knight Lore* – so it's also feasible that *Pentagram* was written, or at least partially written, by the brothers collectively before *Gunfright* was even released. Regardless of who the true author of *Pentagram* is, it would be Ultimate's final *Sabreman* release, and the most ambitious of its Filmation games.

The true casualty of US Gold's partial buyout of Ultimate was the final unreleased episode in the *Sabreman* saga: *Mire Mare*. The much talked about final episode in the series, despite being mentioned in the endings of *Pentagram* and *Underwurlde*, never actually found a release. Only the Stampers know the truth, but that hasn't stopped various conspiracy theories from surfacing on the internet, and a conveniently anonymous former Ultimate staffer claiming that the game was

> ## " That he has continued to crop up is proof that Rare has a lot of fondness for Sabreman "

finished. While entirely speculative, it's rumoured that development of *Mire Mare* was held back by Ultimate during US Gold's partial takeover to ensure that it was its final release. But it's believed that the Stampers grew disillusioned with US Gold after learning of the company's strategy to focus on budget re-releases over investment in new titles, and as a result the game was never finished. While many fans have assumed that *Mire Mare* would keep the Filmation look of both *Knight Lore* and *Pentagram*, in 1990 it was revealed on Rare's website that the game would have played more like *Sabre Wulf*. The website also claimed that the basic game design of *Mire Mare* was finalised, but coding

never commenced because of time. In hindsight, it's very unlikely that the game was finished. Knowing just how popular the series was with Spectrum owners, it's improbable that the Stampers would have blocked the release of the final game, regardless of any ill feeling between them and US Gold at the time. It's far more likely that the series was a victim of timing. As the brothers had rightly predicted, the market was changing as the reign of the microcomputer was coming to an end.

It would be 19 years before we would finally see Sabreman return to our screens in his own game. Before then, of course, the character had made a number of subtle cameo appearances in various Rare games, fuelling the belief that another *Sabreman* game was on the cards. He was the main inspiration behind the character Count Von Sabrewulf in *Killer Instinct*, and also had a minor cameo in *Banjo-Tooie*, where he appeared frozen inside a block of ice on the stage Hailfire Peaks. Rare has also made reference to Sabreman in the games *Viva Piñata* and in the GBA version of *Donkey Kong Country*, and at one time was even rumoured to be working on a racing game based on the *Sabreman* universe. Titled *Sabreman Stampede*, it was speculated that the game would have been adapted from the cancelled *Donkey Kong Racing* GameCube game. In 2004, Rare finally decided to revisit the character properly by giving him his own game. And once again it saw another change in the look and gameplay style of the series. Released for the GBA, and
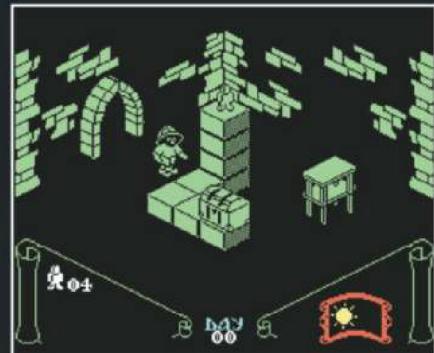
» The Stampers later revealed that *Knight Lore* was actually written before the release of *Sabre Wulf*. Impressive.

» *Underwurlde* is an interesting outing for Sabreman, mainly because he no longer has his trusty sabre for protection.

» *Sabre Wulf* remains one of our favourite games to star Sabreman. We'd love to see a next generation update.

Pentagram

Sabreman ditched the helmet and shorts for a wizard getup in his fourth and final Spectrum outing. This time he was on a mission to find the scattered pieces of a magical artefact known as the Pentagram.

Mire Mare
(Unreleased)

Little is known about the planned but unreleased final chapter in the saga, though it's been rumoured that the game would have played more like *Sabre Wulf*.

Sabre Wulf
(GBA)

The last game to star Sabreman saw him don his pith helmet once again for a colourful side-scrolling platform game that shared a few similarities with Rare's *Donkey Kong Country* series.

2004

» Sabreman appears to have been officially retired. We hope that one day he'll make a return.

We probe Rare's head of studio, Mark Betteridge, about those burning Sabreman questions

■ **Did the Stampers ever tell you where the idea for Sabreman originated?**
Sadly no. Maybe the result of watching *Carry On Up The Khyber* too many times? Sabreman was designed to make sure the player knew they were in the hands of an experienced, intrepid explorer before dropping them into the middle of the jungle or at the entrance to an ancient castle. It was probably a bonus that he was a quintessentially British character on a quintessentially British computer.

■ **Why do you think he proved so popular on the Spectrum?**
I suppose a lot of it was down to the games themselves making such an impact, and Sabreman being a representative for them. He was the common thread that ran through the whole series, and the way his characteristics changed between the games – explorer, werewolf, wizard – kept him interesting.

■ **Could you tell us everything you know about *Mire Mare*?**

Well, there was cover art, which we posted on the Rare website when it was plucked out of Tim's original artwork portfolio back in the late Nineties. I don't think the game itself ever got very far; it certainly wasn't completed. There was every intention of finishing and releasing it, but Ultimate's time on the 8-bit home computers turned out to be limited before it morphed into Rare and changed direction.

■ **Why was *Sabre Wulf* resurrected for the Game Boy Advance as opposed to a home console?**
The team just wanted to do something with one of the old Ultimate properties, and handhelds seemed like a good place to experiment with the popularity and relevance of past franchises. The style ended up being very different, but *Sabre Wulf* on the GBA turned out really well, as did *Jetpac Refuelled* on Xbox Live Arcade later. We like to revisit the old IP from time to time, but with over 25 years of characters and series to work with and the constant need for new titles on top of that, we can never make everything that we want to!

■ **Whose idea was it to stick him in *Banjo-Tooie* and was there any truth to the rumours of a proposed N64 game?**
That was lead designer Gregg Mayles. The *Banjo* team are known for including self-referential bits and pieces, from the posters in *Grabbed By The Ghoulies* to the game discs in *Banjo-Kazooie: Nuts & Bolts*. In *Tooie*'s case, Gregg needed a character that had been frozen in ice for years and he wanted it to be someone recognisable, so he went all the way back through Rare's history to Sabreman. There were no N64 *Sabreman* games proposed – *Tooie* was his only appearance on the system.

■ **Tell us a little about *Sabreman Stampede* on the Xbox.**
It was conceived as a sort of Xbox successor to the similarly unreleased *Donkey Kong Racing* template featuring jungle animals instead of vehicles, but it soon evolved into something more adventure-based, which better suited the character. One of the senior team members recently described it as "like *Jambo Safari* and *Grand Theft Auto* rolled into one". Make of that what you will!

confusingly titled *Sabre Wulf*, the game wasn't a portable remake as many fans assumed but more of a cutesy reboot of the series. A side-scrolling platform romp that shared a number of similarities to Rare's *Donkey Kong Country* titles – most notably that many of the missions required Sabreman to enlist the help of various jungle creatures – it saw Sabreman travelling to a variety of villages, all taking their names from Ultimate games, to solve the puzzles required to enter Sabre Wulf's various lairs. While Sabreman had taken the platform game route once before with *Underwurlde*, the epic and mature feel that the series is renowned for was lost among the cute and colourful aesthetics of this portable outing, and left many fans disappointed and confused as to what Rare has in store for the character.

Whatever the future holds for Sabreman, it's clear that the character still features prominently in Rare's impressive catalogue. The very fact that the character has continued to crop up in various Rare titles over the years is unmitigated proof that the company obviously holds a lot of adoration and fondness for the character. And while many passionate retro fans would be happy for Sabreman's adventures to

continue on for many years to come, we can understand Rare's want to use the character sparingly. In terms of quality, the worst thing Sonic ever did was become a household name. The popularity of Sega's zippy mascot is a contributing factor to why he quickly got enveloped by annoying peripheral characters and silly gameplay gimmicks as Sega tried to capitalise on his popularity. Even Mario, unarguably the most popular videogame character in history, has been lent out to projects less befitting of his stature over the years. Can the same really be said about Sabreman? While his 2004 return might not have been quite what fans had in mind for their hero, the GBA title was still an enjoyable and quirky platform adventure, and has done nothing to tarnish the heritage of the character. It's just a shame that, in 2007, the Stampers left Rare, as unless they plan on making a triumphant return to the games industry any time soon, it's looking increasingly unlikely that we will ever get to hear the definitive story behind the *Sabreman* series, that US Gold relationship and what actually happened to *Mire Mare*. One thing is certain, though: if we are fortunate enough to ever find out the truth, you'll be the first to know.

MATTHEW SMITH

AFTER YEARS IN THE WILDERNESS, THE CREATOR OF MANIC MINER AND JET SET WILLY IS BACK LIVING AT THE FAMILY HOME IN LIVERPOOL WHERE HE CODED THOSE TWO SPECTRUM CLASSICS. MATTHEW SMITH AND HIS MUM GAVE PAUL DRURY A UNIQUE THROUGH-THE-KEYHOLE EXPERIENCE. HERE ARE 13 SCENES FROM A LOST WEEKEND

'T his room was piled high with papers and the dog was always coming in and pissing on them,' explains Matthew.

'That's a lie!' protests his mum. 'My dog was very good.'

'Right, I must have been doing it myself,' says Matt.

'It was more likely to be one of the cats,' suggests mum.

'It must have had an enormous bladder, then,' he mutters.

The three of us are standing in the room where *Jet Set Willy* was written. The workstation which once housed a TRS-80 Model 3, a five-meg hard drive and a Spectrum, has been replaced by a glass display cabinet. Four porcelain swans, heads bent, sit atop it. And we're trying to determine which of the family pets urinated on the maps of Willy's mansion.

'Anyway mum, they were your cats.'

Mum suspects that Matthew never really liked any of her animal friends. 'I left that Labrador here one day and Matthew tried to swap it for an Alsatian.'

He chuckles, sheepishly. 'I tried to take it for a walk and it just wasn't a walking dog. So I tried to swap it for one that was.'

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'His problem was he was born totally brilliant,' says mum.

We're sitting round the kitchen table now, sharing Guinness and watching the ashtray fill up.

'When he went to school at four, they gave him a reading age of 13 and a half. He sailed through primary school doing what he

» We noticed this master copy of *Jet Set Willy II* underneath a Guinness can on Matt's desk. He's promised not to tape over it.

wanted to do. That's not necessarily good. He learned to read himself, sitting in his pram. You'd be wheeling him down the road and he'd be reading the adverts in the shops. If he didn't know a word, he'd ask what it was. At three he could read a newspaper. That was his party piece: Look Matthew's reading the paper!'

'Now I'm 42 and I'm not allowed to climb a ladder in case I fall off and hurt myself,' observes Matt, dryly.

Mum waves the remark away. 'Well, that's your mother.'

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'Oh yes, he was one of these self-contained kids that you want to say, "Go out and play with your friends." But no, he was happy with his own company. Which to a mother isn't a particularly good thing.'

Mum and Matthew exchange a glance and a smile.

'He'd show me these drawings, but not knowing what a computer game was, it didn't mean anything. I mean, they didn't really exist.'

Matt nods. 'I was working out how to make games before I had a computer, scribbling on graph paper at the back of the class. My first game design was actually Jimmy Carter in a rowing boat being chased by rabbits.'

I begin to speculate whether this was an early indication of his slightly surreal game design tendencies, before Matthew points out it was based on an actual incident where the US President was subject to an unprovoked attack from a killer swamp rabbit while out fishing.

'I drew the graphics for that, but there was no way to program it. There weren't really computers at the time.'

'His stepfather bought him his first computer,' interjects mum. It's the only time the man who also gave Matthew the surname Smith is mentioned.

'That was the Tandy in 1979,' confirms Matt. 'I'd first seen *Space Invaders* in the leisure centre where they filmed the stadium scenes for *Chariots Of Fire*. They couldn't get enough extras so they had to use cardboard cutouts. That machine is what got me thinking. When I got my TRS-80, I thought, right I'll play some *Space Invaders*, but I just couldn't get a good version. That was a motivation…'

I open up the draft of Adrian Robson's book, *Miner Willy – From Rags To Riches* at the page featuring *Delta Tau One*, Matt's first published game.

'Ah, my version of *Galaxian*, yeah. In machine code in 4K. On a 1 MHz machine. You don't want to go there. And you certainly don't want to play *Galaxian*.'

» Matt at his *JSW* workstation, complete with a Tandy Model 4 and a homemade cable to squirt the code over to his trusty Spectrum.
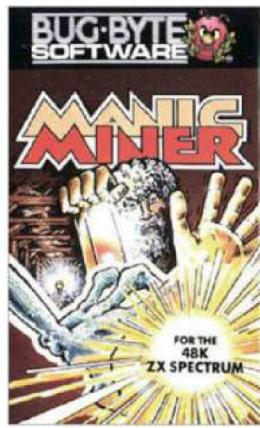
» The original *Manic Miner* cover from when Smith was still at Bug-Byte.

» A visit to the New Brighton arcades of his youth in 2006.

He wipes the remains of some Guinness from his top lip and grins like a Cheshire Catweazle.

'I wrote it, showed it all my friends in the Tandy shop and sent it to Molimerx in Bexhill-on-Sea. They were the only publisher of TRS-80 games back then. I got a letter of acceptance back saying they'd stick it in their catalogue, though I think they accepted everything. The catalogue was about that thick…'

Matt holds up his fingers to indicate telephone directory girth.

'It retailed at £14.95, which was pretty much the normal price and I think they paid 20 per cent of retail. I got a cheque for close to 50 quid so that means they sold, what, fifteen copies?'

Matt squints at the screenshot and reads the '© M. Smith' aloud.

'Maybe I should have chased them for a second cheque,' he muses.

So when did you realise that your lad had talent?

'Oh I always knew he had something, that he had great ability,' says mum proudly.

'I think it was when I was putting cheques into her bank account because I didn't have one myself,' offers Matt.

'You never did that!'

'Alright it didn't happen, I wasn't there.'

'That £3,000 you made from Valhalla…'

'Styx,' Matthew corrects her.

'That went on a new computer and a ski trip for you and Patrick,' mum reminds him.

Ah, the Italian holiday where the first sketches for Manic Miner were pencilled into that red notebook? They both nod and begin to roll up fresh cigarettes.

'Patrick was the son of a family friend, the family that first introduced us to Wallasey,' remembers mum. 'He had the same wacky sense of humour as Matthew.'

'He's a hypnotherapist in Kingston on Thames now,' observes Matt.

'I remember when he finished Manic Miner,' says mum. 'He copied it on to this tape, put his coat on and ran off to take it where it should be. It was his from start to finish.' We're all in the front room, next to the desk that a 16-year-old Matt must have jumped up from, clutching that precious code before dashing outside. His very own 'eureka!' moment.

'Every now and again I'd take it over to Bug-Byte and meet up with Chris Cannon and Steve, some friends from Tandy. Not that often, maybe two or three times. It only took eight weeks.'

So was it all yours, Matt? Did they offer you any feedback or contribute ideas?

'Nah, all the suggestions had been talked about previously, before I started, with Alan Maton. He came up with the name. The game we were talking about was a lot more like Space Panic. There would have been digging and going up and down ladders and stuff. I think I got the jumping thing working first and decided that was enough. A jumping game is simpler to do. And I said, "Look, I can make ladders you can jump up!" As it happens the platform game I'm doing at the moment for phones has proper climbing…'

'He was going to have a year out before he went into sixth form just to have a go at it and of course success came like that, almost overnight.' Mum shakes her head and taps the ash from her roll up. 'The instant success and the instant money did worry me at that age. Money can be a dangerous thing. Too much too soon. Mothers see a broader picture.'

Matthew throws his head back and looks at the ceiling. 'I say not enough and not soon enough.'

'Of course I was worried you were doing too much partying,' says mum. 'All these hangers on saying, "Are you coming for a drink?" and, "Are you buying?"'

Matt leans against the door to the lounge. The very same lounge where he wrote Jet Set Willy. By this time, the largest room in the whole house had become Matt's office space and also his unofficial staging area.

Matt nods. 'Had half the world in this room. Starting with Alan behind me, prodding me, saying, "Go on, do another screen…"'

'At that point, Matthew had lost his individuality, his freedom, everything really, to them. He was the goose that was going to lay the golden eggs.'

'I was property.'

But Matt, you were a director of the company. Surely the idea of setting up Software Projects was that you could no longer be pushed around or ignored?

» 'Not as good as Bill Hogue's', concludes Matt of his Galaxian clone Delta Tau One.

» Matt in his new computer room. 'I've taken to sleeping on the sofa again, just like the old days.'

"THE INSTANT SUCCESS AND THE INSTANT MONEY DID WORRY ME AT THAT AGE. MONEY CAN BE A DANGEROUS THING. TOO MUCH, TOO SOON. MOTHERS SEE A BROADER PICTURE"
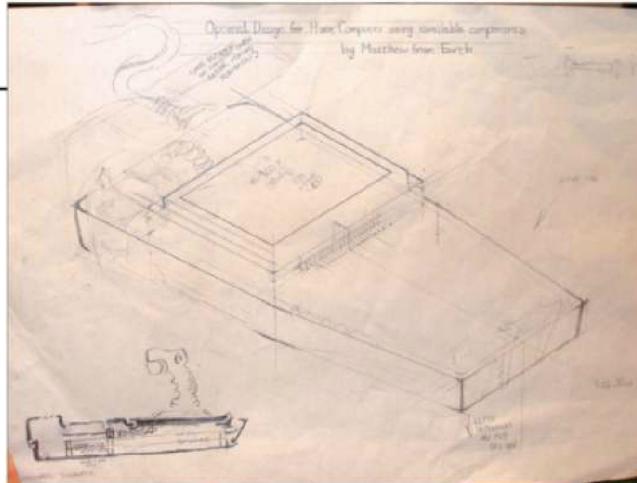
MATTHEW SMITH'S MUM

MATTHEW SMITH

» Mother and son mull over those pre-Game Boy designs for a handheld computer.

'That was the plan,' he says, forcing a smile. 'But 33 per cent is a minority share. I was still on my own.'

Mum has her own theory. 'By the time he'd done *Jet Set Willy*, he was tired, he needed a break for a while, but the pressure was on to do the next game. Anything creative can't just be churned out to order, but the money went to Alan's head.'

Matt looks at his mum. 'To be fair it went to everyone's head. Absolutely everyone's.'

Mum returns from upstairs holding a page from a large sketchpad. It's from 1984 and is entitled: 'Optimal Design for Home Computer using available components by Matthew from Earth.' The screen resolution is marked as 320x200. A side-on view suggests a joystick could be attached in place of a keypad. There's a cartridge port, with a slot that looks all ready to accept Interface One-sized carts. It looks uncannily like a prototype for Nintendo's original Game Boy, which didn't appear till five years later. Did you show this anyone, Matt?

'Oh no. This is all secret. I had a planner's chest full of secret designs,' he says.

This reminds mum of another enterprising chap. 'That bloke who won *The Apprentice* said he'd always admired Alan Sugar since his dad had bought him an Amstrad and he'd played *Jet Set Willy*. Oh, I felt a tingle of pride when I heard that,' she beams.

Matt is less than enthused. 'Every time I see bloody Alan Sugar I think you owe me 10p for every one of those phones you sold with my game on it.'

Mum ignores him. 'You know we had all sorts of press round back then. Thames Television rang him up and asked him to go on *Tiswas*, but he never did.'

'I was too busy by then,' says Matt. 'Or too closeted.'

Mum has headed off to bingo for the evening and we're crouched round the laptop watching the walkthrough of *Manic Miner*. Suddenly Matt notices an anomaly – the Bug-Byte amoebatrons are gone, but the Software Projects' logo doesn't appear on The Warehouse screen.

'Ah, this could be a very late Bug-Byte version, or a very early Software Projects version,' he says, with a knowing wag of his finger. 'With Bug-Byte, I'd take the tape myself up three floors to the tape duplicators. They had a whole floor at Canning Place. They'd stick my cassette on their posh tape deck and played it loads and loads of times onto one big master, these massive ten-inch reels and they used that to copy at high speed onto cassettes. That master would be going over the tape heads all day, so when it wore out they'd come and get me to make a new tape. I'd get the latest version off the Tandy and squirt it onto the Spectrum and that became the new master. And I'd change things. Quite often. That's how bugs disappear! I don't think there are any bugs in *Manic Miner* because of that. Loads in *Jet Set Willy*. That wasn't released, it escaped…'

He relights his roll up and continues. '*Jet Set Willy* was almost done when we set up Software Projects.'

You mean the mansion was all sketched out?

'Nah, that didn't really happen. I'd do a level and stick it next to that

» **Left to right:** » Little Matthew in his childhood bedroom. Close your eyes and you can see the colours, man… » Matt at Nottingham's Screenplay Festival in 2005, talking to your curly haired correspondent. » Available on your mobile soon?

one and then do another. That's why the map doesn't really make any sense. It was never drawn as one in the first place.'

That explains the odd architecture but what about the possessed Swiss Army knives, the deadly puddings, the pig metamorphosis and the array of inanimate objects brought disturbingly to life?

'That could be the mushrooms,' he suggests.

'Cake!' Matt declares definitively, while holding up his half-eaten doughnut triumphantly.

When I explained **Retro Gamer** readers had posted questions for him online, he immediately signed up for our forums and is now pondering such quandaries as, 'Cake or Death', which cheese to serve at retro gaming events and just who is the greatest Timelord.

He takes an especially long time considering whether he's ever been embarrassed by his cult status, before deciding, 'I enjoy it is the simple answer. I can't think of any embarrassing situations it's put me in. I mean I've had people say [he adopts a high-pitched squeak] "Matthew Smith! Sign this piece of paper for me!" Someone even asked me to sign their Spectrum once.'

Erm, that was me Matt. Does that make us all sad fanboys?

'I'm just saying I've never done it to anyone else,' he winks.

Matt reaches for his lighter. 'Let's see, how much can I say…'

I'm trying to get some details on the mobile phone game he's alluded to, but things remain vague.

'I haven't thought about it for a while. I've got three different versions of the main characters, according to what the artistic and legal imperative is,' he says mysteriously. He faffs around for five minutes, changing the hard drive of his PC at one point, and finally gets a set of sprites up on screen, including an undulating caterpillar and a waltzing pig apparently balancing a milk bottle on its snout. 'Not exactly something from my back catalogue, but very similar in style. Could be '*Mooner Wally*'.'

I completely miss the point of this copyright-skirting name change and ask if a game around flashing might expose Matt to a little controversy.

'My first thought was having him go to the moon, but a guy who shows his arse – yeah!'

He laughs loudly and continues to giggle when I show him some screenshots that **Retro Gamer**'s own Richard Burton discovered buried in Matt's old website.

'*Oh Diana!*. Ah, that was a platform game in Flash; based on a character done by a Sri Lankan comedienne I met on this programming forum. Nah, never got finished.'

All these loose ends. I press him further on his most famous lost game, '*Miner Willy Meets The Taxman*', a ten-level horizontal-scrolling platformer for the Speccy, not to be confused with the Commodore 64's *Megatree*.

'You'd start in modern times and then go back through various periods of English history. A Tudor level, a medieval one, something with the Celtic tribes in, back to the Romans, who were the first taxmen.' He taps the side of his head. 'It's still all up here.'

Mum's back from bingo, having bagged £100. We're all toasting her success with the last of the Guinness quickly followed by a fresh bottle of red. The mood is upbeat, until mum puts down her glass.

'You know, it is bad that Matthew now has nothing. You'd think somewhere, in all these websites and talk about him, he should have some money.'

There's an awkward silence. I try to fill it by rambling on about how many people out there still care about Matthew, want to know he's okay, wonder what he's going to do next. Matt mumbles, 'Yeah,' and they both smile.

'Who'd have thought that nearly 30 years after they'd be all this interest in those early computer games,' mum says. 'I suppose for them it's history. For us it's just a few days ago.'

It goes quiet again. 'Coffee anyone?' she asks.

The next morning, Matt shows me the photographs that mum has carefully kept alongside various press cuttings of Matthew from the Eighties. There's one of him as a baby splashing in a sink, another of him with his first bike and some magazine shots of him at his workstation during the development of *Jet Set Willy*. He passes me one of himself at seven, in pyjamas, staring wide-eyed into the distance. Behind him are swirling patterns, like giant rainbow fish or peacock feathers perhaps.

'Yeah, my dad painted my bedroom wall with all these colours. Psychedelic,' he smiles, with the same twinkle in his eyes.

Before I leave, he gives me a little souvenir. It's a sketch his sister Michelle did of Matt, sprawled on a sofa, surrounded by overturned cans of lager, half-eaten tins of beans, computer manuals, crumpled fag packets, a half empty bottle of British sherry and some little scribbles of ladders and platforms.

'She was at art college when I was coding *Manic Miner*. Yeah, I imagine that's how she found me some afternoons.'

I say I'll get it framed and call it '*After Tracey Emin's Bed*'. He laughs and then suddenly notices the picture includes the family cat sitting on top of the settee.

'Now does that cat look like it has a bladder big enough to soak four inches deep of paper right through?'

"'I WAS WORKING OUT HOW TO MAKE GAMES BEFORE I HAD A COMPUTER, SCRIBBLING ON GRAPH PAPER AT THE BACK OF THE CLASS" MATTHEW SMITH

FROM THE ARCHIVES

RETRO GAMER DIGS UP THE FILES OF THE CLASSIC COMPANIES OF OLD

Durell Software

As software houses go, Durell couldn't claim to be the most prolific, exciting or successful, but it was responsible for several superb Spectrum hits, including Harrier Attack, Saboteur and Turbo Esprit. Martyn Carroll talks to its key people and charts its brief but bright history

The sum of £100 is important in the history of Durell Software, and no, it has nothing to do with the cash reward that the company offered to anyone who dobbed in a dirty pirate. Funnily enough, when Durell is mentioned these days, the topic almost always turns to this infamous £100 reward, so we began by asking Durell founder Robert White about it. Did any playground pirates do jail time for ripping off *Turbo Esprit*? Was the office inundated with illicit tapes and anonymous tip-offs? "It was an absolute hoax," he laughs. "You wouldn't go prosecuting some kid, would you? No one contacted us anyway. The only thing we got were people phoning up and saying things like, 'I've been playing *Combat Lynx*

and I landed my helicopter in front of a tank and the tank drove straight through it. Why didn't it blow up?' Piracy was definitely a problem, but the reward was just a bluff really." But what about those special Durell-branded blue cassettes that identified legitimate copies? They must have been expensive. Robert laughs again. "It was simply that our tape duplicator had some blue tapes! That was it. Nothing conscious there at all."

Forget the reward – £100 is important because that's the capital Robert used to start up Durell in 1983. With the money he bought a shiny new Oric-1 computer and taught himself how to program it. Prior to this, his background was somewhat less technical. He actually qualified as an art teacher but soon discovered that

□ **INSTANT EXPERT**

The company name comes from one of the middle names of its founder, Robert James Durell White.

Durell Software began life on 14 February 1983 with Robert as its sole member of staff. Ron Jeffs and Mike Richardson joined the company four months later.

Durell's first Oric games (*Lunar Lander* and *Asteroids*) were written in BASIC and the listings were annotated with explanatory REM statements, the idea being that budding programmers could understand how the games worked.

In-house programmers were on a salary, but they were also paid a royalty of 50p per game sold.

Harrier Attack was bundled with the Amstrad CPC464, adding another 100,000 units to the game's already stellar sales figures.

Despite releasing games on multiple formats, the Spectrum emerged as Durell's lead platform. Robert puts this down to Mike Richardson's skill with the machine.

Saboteur was the only Durell game to receive a sequel. According to Clive Townsend, it was simply down to the success of the first game.

Turbo Esprit is often held up as the precursor to the *GTA* games, yet DMA Design's Mike Dailly has told us that the chief inspiration for *GTA* was the *Syndicate* games.

half the population had too. "I remember applying for one job and there were 800 applicants," he says. Switching career paths, he gained a degree in quantity surveying and landed a job at the Oxford Regional Health Authority. In his role as a senior architect, he used CAD software to design hospital buildings and quickly developed a fascination with computers, and in particular the notion of using computing to solve problems.

"I was in the job for three years," he says, "but then my wife's grandparents died and we had the opportunity of moving into their house, and that was out in the country in Taunton where there was a great shortage of hospitals to be designed! So I left my job, bought an Oric and basically went to work in my bedroom like a maniac. My start-up capital was the cost of the Oric, and that was all the money I had in the world. So I wrote the first of our games for the Oric to generate some income. They were pretty crap, but they sold really well as there was absolutely nothing available for the computer at the time. I could hardly not sell a game."

Staffing up

The very first Durell games were *Lunar Lander* and *Asteroids* for the 16K Oric. They were sold via mail order and as the orders stacked up, Robert quickly realised

> ## " I rang Robert and drove out there the same day and came home with an Oric under my arm "

RON JEFFS MAKES IT THROUGH DURELL'S STRINGENT HIRING POLICY
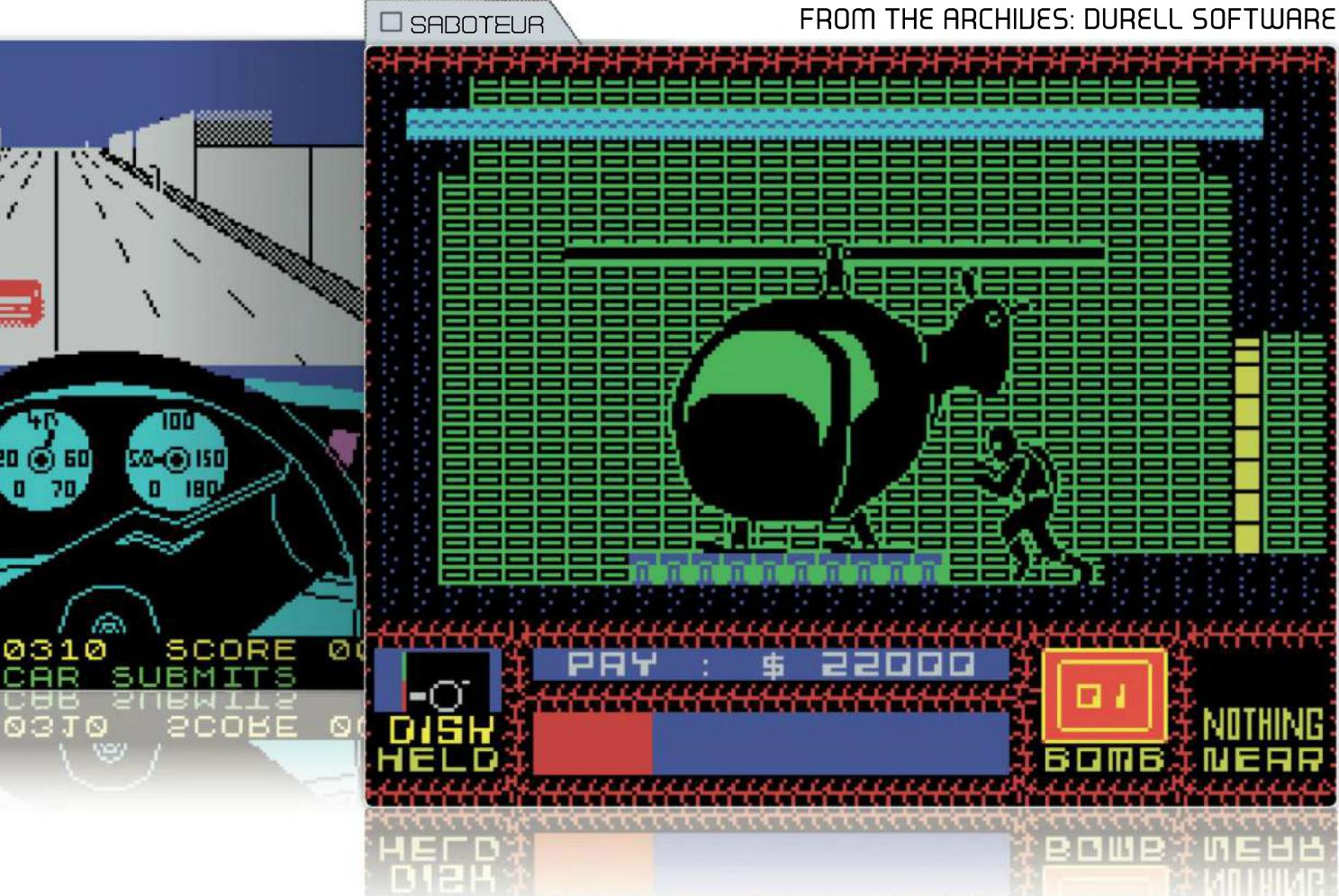
that he didn't have enough hands to write programs and run the company at the same time. He needed skilled staff, so he placed an advert in his local newspaper looking for machine code programmers. The ad was answered by Ron Jeffs and Mike Richardson.

"It was one of those fluke things," says Ron. "I wasn't actually looking for a job, but my wife was. So we got the local paper and were looking through the vacancies and came across Robert's advert. I rang him and drove out there the same day and came home with an Oric under my arm!" Originally hailing from Brighton, Ron was an engineer by trade and developed an interest in programming after picking up a Sinclair ZX80. He left the German company Nixdorf Computer to join Durell at the age of 46.

Mike was 20 years Ron's junior, but in similar fashion, his interest in programming was initially just a hobby. "I used to work in an aerosol factory and I studied part-time at Bristol Polytechnic," he reveals. "Eventually I got an MSc in instrumental

chemical analysis, and I was still doing that when I first started with Durell."

Robert hired Mike on the strength of a quaint Spectrum game he'd written called *Jungle Trouble*. "I saw a television advert for a game, which I think must have been *Pitfall*, and the game grew from that," says Mike. "It took me about five or six months to complete, but I was only doing it part-time as I was working at the aerosol factory at the time."

Robert liked the game and later released it for the Spectrum, but before that he had a game idea of his own that he wanted his new recruits to realise.

"The original *Harrier Attack* idea was Robert's," remembers Mike. "He thought that because of the Falklands War, the Harrier had been in the news a lot, and it would be a good idea to do a game based on that. Ron did the first version of

the game for the Oric and I worked on the Spectrum version. It was a big help to have the Oric game as a guide as there was no decision-making to do along the way. There were no graphics or code sharing – I looked at what Ron had done, then went and did my own thing."

Ron adds: "Robert explained his idea and it was quite primitive really. You basically took off in your plane and got shot at, and you shot back, and that was it."

Harrier Attack was a simple *Scramble* clone wearing topical trousers, but Robert was convinced that it would be a hit with gamers. He was so certain that he booked £20,000 of advertising to promote the game. "By the time *Harrier Attack* was ready for release around September 1983, I'd used pretty much all of the company's money to pay Ron and Mike to that point, so I went off and booked all this advertising with no way of paying for it! But I was 100 per cent confident that it would work out. I remember saying to

Durell's *Scuba Dive* proved it was possible to create gripping game concepts out of almost any type of scenario. It was inspired by the team's love of diving.

Although Clive's Spectrum version of *Death Pit* was cancelled, the game had an obvious influence on sections of *Saboteur*.

my wife one day, 'I think we'll probably make £40,000 by Christmas', and in the end that's roughly what we did. In my architect role I was earning £9,000 a year, so £40,000 was a huge amount of money at the time."

Chart attack

Sales of Durell software suddenly went bonkers. By July 1983 Robert had managed to shift 800 tapes, but by the end of the year that figure had risen to 20,000. *Harrier Attack* alone went on to sell a colossal 150,000 copies and the success of this single title funded game development for the next three years.

Mike devoted himself full-time to Durell and began work on underwater jaunt *Scuba Dive*. "Robert wanted us to do a *Frogger*-style game," says Mike. "We had an ideas meeting and decided to replace the frog with a diver and the obstacles with dangerous fish, and it grew from there, eventually into more of

> ## " Sales had risen from 800 tapes to 20,000. Harrier Attack went on to sell 150,000 copies "
>
> DURELL HITS THE GROUND RUNNING WITH ITS FIRST HIT
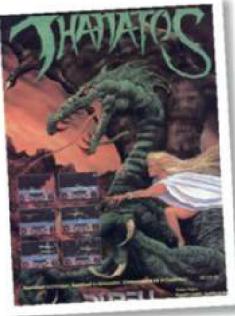
Thanatos came after Robert's decision to leave gaming for the more stable and predictable world of business software.

an exploration game." *Scuba Dive* was followed by *Combat Lynx*, an ambitious game that put players in control of a military attack helicopter. Although *Harrier Attack* was wildly successful, Mike wasn't about to replace the plane sprite with a chopper and be done with it. Instead, he crafted a game that was part shooter, part simulation, and featured great 3D graphics. "I always had a thing about not repeating myself," he says when asked about avoiding the easy option. "Besides, I had an idea about how to do a 3D landscape after seeing the output from a scanning electron microscope while I was doing a chemistry course."

Robert realised early on that for a game to be a success, it needed to appear on as many platforms as possible. Lots of conversion work was handed to Ron Jeffs, who rewrote *Scuba Dive* for the Oric and *Combat Lynx* for the Commodore 64. Ron went on to port several more games to the C64 – and not just because he was familiar with the 6502 processor, which powered both the Oric and, in modified form, the C64. "It was partly because I had a grounding in the 6502 processor, but largely because Robert simply needed someone to write versions of the games for the C64. And because Mike was so good on the Spectrum, I stepped in to do the C64 stuff. I always thought the 6502 was one of the best processors anyway. It was so simple and that made it so fast. It really put the onus on the programmer to be smart with it."

Mike turned his hand to the Amstrad CPC when it was launched in 1984 and he quickly converted *Harrier Attack* to

WHERE ARE THEY NOW?

Robert White
The founder of Durell Software now runs Durell Solutions out of the same office complex in Taunton. The company provides administration software to the insurance industry. "Doing games was not a lot different from what we're doing now," he says. "It's about coming up with ideas to solve problems and trying to present the solutions attractively."

Mike Richardson (pictured)
Apart from a spell when he worked with Robert on business software,

Mike has been involved with games for the past 20 years. He has written games for the PC, PlayStation and 3DO, and is currently working on iPhone software. In his spare time, he is studying maths at the Open University. He also likes to mess with electronics. "For Christmas I got a PIC microcontroller programmer board kit. I haven't done any soldering for a long time so I'm looking forward to playing with that."

Clive Townsend
The *Saboteur* creator now runs

Incognito Games, which has produced many titles for mobile phones, including the 2007 hit *Sonic Jump* and the official *X Factor* game. In his spare time he plays too much *FarmVille* on Facebook.

Ron Jeffs
Ron has worked with Robert since 1983. He was Durell's head of support from 1988 until 2009, and now, aged 72, he has taken on a part-time role. According to Robert, he's still a very much appreciated member of the team.

Julian Todd
For the past 17 years, Julian has used his geometric talents to write algorithms for CNC Machine Tools, based in Norwich. For fun he works on "disruptive political websites".

Nick Wilson
Nick has worked in the games industry for a number of years since he wrote *Deep Strike*, including a spell making games for Eidos. He currently runs StarByte Software, which is behind the iPhone games *Black Mamba Racing* and *NEX*.

SIX OF THE BEST

Harrier Attack
[1983]
Included not because of its importance in the history of Durell, but because it's a great little game in its own right that's perfect for quick blasts. It's probably best remembered on the Spectrum and Amstrad CPC, yet the Commodore 64 version comes out on top thanks to its slick graphics and decent sound effects.

Scuba Dive
[1984]
Mike Richardson's first game of note was this cracking marine adventure, which saw the player salvaging treasure from the deep while avoiding all manner of underwater beasties. It's littered with lovely little touches, like the moving boat on the surface and the big ol' octopus guarding entry to the deeper caverns below.

Saboteur
[1985]
Yes, the game where you could kick dogs to death, but there's much more to *Saboteur* than wanton canine cruelty. The emphasis was on exploration, and discovering new areas in the huge enemy complex was perhaps more satisfying than actually completing the mission objective itself. *Saboteur* is a true 8-bit classic.
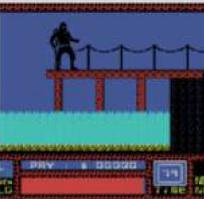
Turbo Esprit
[1986]
Widely considered to be Durell's finest release, this exceptional driving game invited you to race through 3D cities and bust drug smugglers while obeying traffic signals, pelican crossings and other rules of the road. Pretty epic – by the standards of the Spectrum, at least – and you can't say that about many 8-bit games.

Thanatos
[1986]
Durell games often featured flashy, high-tech scenarios, so this fantasy arcade game set in medieval times was a welcome change. Graphically it was amazing, particularly the main dragon sprite, but as with all of Mike Richardson's work, it was the little details about it that really stood out. A game made with obvious affection.

Saboteur II
[1987]
Subtitled *Avenging Angel*, the sequel featured a face-kicking female protagonist, which was a novel twist at the time. *Saboteur II* just about had the edge over the original – the game map was bigger and there were distinct missions that increased replay value. Plus, you could bust out of the enemy base on a red motorbike…

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the new machine. The game attracted the attention of Alan Sugar, who was desperate for software to publish on his Amsoft label. The deal was done and *Harrier Attack* became one of the games bundled with the computer. "Alan is a smart businessman," says Robert. "You don't get a lot out of Alan Sugar. It was nice to shift an extra 100,000 copies through Amstrad, but he was on a very tight budget. I doubt in the end if he even paid 10p a copy. It wasn't a great deal for us, but it was a nice little extra."

For the BBC Micro, Robert looked to a couple of young programmers who had previously written games for the Acorn machine. Nick Wilson and Julian Todd were two school friends who grew up just 20 miles away from Durell's offices in Taunton. "We sold Durell one game for the BBC Micro called *Mineshaft*," says Julian, picking up the story. "Then we ported *Combat Lynx* from the Spectrum to the BBC over many weekends in

Here's a glimpse at Mike Richardson's unreleased *Saboteur 3*. This screen, and many others, were recently retrieved from Mike's old Microdrive cartridges.

The full story behind the third *Saboteur* game would require an article in itself, so we'll briefly summarise the reasons why you've never had the chance to play it. The first attempt was made by Mike Richardson shortly before Durell sold its games to Elite. A design was drawn up and Mike created a bunch of sprites and even some mocked-up screens, but development ceased when the sale went through. Clive Townsend later started work on his own Spectrum sequel under the title *Saboteur 3D*. A demo was produced but Clive decided to shift development to the PC instead. The game then went through various iterations during the Nineties before being placed on the back burner around 1998, where it remained. More recently, Clive was speaking to a developer about resurrecting *Saboteur 3*, but once again it didn't work out. "Sadly the developer didn't actually set up the company as he'd planned, so nothing was ever done," reveals Clive. "I still have an extensive design document, though, so if there are any serious producers out there, they should get in touch!"

So one day we may get to play a new *Saboteur* game, and there's even a chance that Clive's *Saboteur 3D* demo for the Spectrum may surface. "I found a load of Microdrive cartridges, but none had *Saboteur 3D* on them," he says. "I'm starting to suspect that it was on a Spectrum +3 disk, so I'll have to check the loft…"

Nick's bedroom. When that was done, Nick dramatically cleared his desk in the middle of the week and dropped out of school to pursue games writing full-time. Later, after attending school in Cambridge for several months, it was my turn to drop out. I rented a crummy room in a shared house in Taunton with Nick and we each worked on new games in the Durell Software attic." Nick's game was the impressive biplane shooter *Deep Strike*, while Julian was responsible for the utterly bizarre – but in a good way – *Fat Worm Blows A Sparky*.

New recruits
More fresh faces soon appeared. Simon Francis was a college kid who impressed Robert with a dungeon game he'd written for the Dragon 32 called *Pit Fiend*. He joined the company in early 1985 and reworked *Pit Fiend* as *Death Pit* for the Amstrad CPC, then authored the *Dune*-inspired Spectrum game *Critical Mass*.

Another new starter was budding Z80 programmer and martial arts enthusiast Clive Townsend, who happened to live on Durell's doorstep in Taunton. He hung around the offices and was initially employed as a graphics dogsbody. His first two games as a programmer – a platformer called *Chicken* and the Spectrum version of *Death Pit* – were both canned, but it was a useful learning experience as he acquired enough machine code knowledge to bring alive his 'pet project', an arcade adventure he'd named *Ninja*. "Clive had a great visual sense and one day he came in with some graphics of people who could punch and stuff," remembers Robert. "I said, 'That

would make a great game, so let's come up with a storyline and put it together.'" That's exactly what they did, and the result was *Saboteur*, a solid-gold smash that went on to sell more than 100,000 copies and become Durell's second bestselling game after *Harrier Attack*.

While *Saboteur* was assailing the charts, Mike was busy fine-tuning his most ambitious project yet. "It was Robert who suggested that I should do a driving game," he says. "He wasn't very specific. It was also his idea to tie it in with Lotus." With the basic concept in place, Mike went off and created the Spectrum classic *Turbo Esprit*. Making the game's 3D cities come to life was no mean feat for Mike. "I'd just done *Combat Lynx*, so I was keen to use a similar type of 3D system. There were lots of tricks I used to get the speed up. It was all done using a lookup table so there were no 3D calculations. I really had to use every available bit in the Spectrum to do it."

Turbo Esprit sold 50,000 copies, and while it couldn't match the success of

FROM THE
ARCHIVES

☐ THREE TO AVOID

Saboteur Jr [1986]
Okay, so there was no actual game with this title, but we can't think of a better way of referring to the Commodore 16 version of *Saboteur*. Featuring minute graphics and dozens of samey screens, it was a sorry affair all round. At least Plus 4 owners received a version based directly on the Spectrum original.

Sigma 7 [1987]
This misguided space romp was made up of three mini challenges: a *Zaxxon*-style shooter, a *Pac-Man* maze game and a puzzle section. None were particularly bad, but they failed to hang together as a complete title. The isometric graphics were good, though, so maybe it's worth a look for that reason alone.

Chain Reaction [1987]
One of Durell's last releases was also one of its least impressive. Reminiscent of Ultimate's 3D games, only without the charm, *Chain Reaction* tasked you with exploring a nuclear power station and gathering up dangerous radioactive waste. Despite you racing against the clock, the gameplay was yawn-inducing.

Although extremely simple in nature, *Jungle Trouble* was a strong seller in the Spectrum's early days.

Saboteur, it proved that the firm could still produce sizable hits in a marketplace that had become much more competitive. Yet to stay in the race, Durell had to continually strive to develop innovative new products that would stand out from the crowd. It was a challenge that the programmers appeared to relish, but it came at a cost: games were taking longer and longer to develop. Take Mike's Spectrum output, for example: he wrote the Spectrum version of *Harrier Attack* in two and a half weeks, while his next game, *Scuba Dive*, took three months. This was followed by *Combat Lynx*, which was eight months of work, and then he devoted ten months to *Turbo Esprit*.

Mike reveals that no firm deadlines were ever put in place and he never felt under pressure to get a game out the door. "Ten months was a long time, but personally I always felt that it was

> ## By 1987, the financial rollercoaster was too scary. I just couldn't sleep at night
> ROBERT WHITE ON HIS DECISION TO GET OUT OF GAMING

worth putting in as much effort as possible and would probably have resisted pressure to cut corners quite strongly. One thing about Spectrum development at that time was that once the 48K had been filled, there wasn't much more that you could do. That used to be my cut-off point. I think the lack of pressure certainly did make for a better game, although I can imagine that Robert may have been a bit anxious at times."

Mike was correct and Robert did indeed have cause for concern. "It had become an incredibly risky business," he says. "There was

increased competition and we had to keep coming up with new games, new ideas. It soon became that every game we launched was around an £80,000 gamble. Some of the games worked and some didn't, regardless of critical acclaim. For me personally, by the time we got to 1987, the financial rollercoaster was just way too scary. It got to the point where I just couldn't sleep at night, so I made the decision to move into business software."

While the company continued to put out impressive games during this period – Mike's *Thanatos* and Clive's *Saboteur II* were of particular note – Robert began parallel development of a database program aimed at the insurance industry. When between games, programmers would often get involved – Clive remembers working on the graphical interface for the application. Then, in December 1987, Robert made the shift complete by selling the rights to Durell's games to Elite Systems. Elite boss Steve Wilcox was looking to expand and viewed Durell as a decent acquisition: "We had an

TIMELINE

ROBERT WHITE FOUNDS DURELL SOFTWARE IN FEBRUARY OF THIS YEAR, AND RON JEFFS AND MIKE RICHARDSON JOIN IN JUNE, BEFORE THE YEAR IS OUT, DURELL RELEASES SEVERAL GAMES INCLUDING *GALAXY 5* (ORIC), *JUNGLE TROUBLE* (SPECTRUM) AND *HARRIER ATTACK* (ORIC AND SPECTRUM).

1983

DURELL KICKS OFF THE YEAR WITH *SCUBA DIVE* (ORIGINALLY FOR THE SPECTRUM, WITH ORIC AND COMMODORE 64 VERSIONS FOLLOWING), AND ENDS IT WITH *COMBAT LYNX* (AGAIN, WRITTEN FOR THE SPECTRUM BUT PORTED TO OTHER PLATFORMS). THE COMPANY ALSO RELEASES ITS FIRST BBC MICRO GAME, THE *MANIC MINER* VARIANT *MINESHAFT*. *HARRIER ATTACK* IS BUNDLED WITH THE NEW AMSTRAD CPC COMPUTER.

1984

SIMON FRANCIS AND CLIVE TOWNSEND JOIN THE COMPANY. SIMON WRITES *DEATH PIT* FOR THE AMSTRAD CPC AND *CRITICAL MASS* FOR THE SPECTRUM, WHILE CLIVE CODES *SABOTEUR* FOR THE SPECTRUM.

1985

DURELL RELEASES TWO SPECTRUM GAMES BY MIKE RICHARDSON: *TURBO ESPRIT* AND *THANATOS*. FORMER DURELL FREELANCERS NICK WILSON AND JULIAN TODD ARE ADDED TO THE PAYROLL, AND THEY AUTHOR *DEEP STRIKE* AND *FAT WORM BLOWS A SPARKY* RESPECTIVELY. THE DURELL *BIG 4* COMPILATION IS RELEASED, FEATURING *COMBAT LYNX*, *CRITICAL MASS*, *SABOTEUR* AND *TURBO ESPRIT*.

1986

SIGMA 7, *SABOTEUR II* AND *CHAIN REACTION* ARE RELEASED. DURELL DEVELOPS ITS FIRST DATABASE PROGRAM (INSURANCE MASTER). AT THE END OF THE YEAR, DURELL SELLS ITS BACK CATALOGUE OF GAMES TO ELITE SYSTEMS AND CONCENTRATES SOLELY ON BUSINESS SOFTWARE.
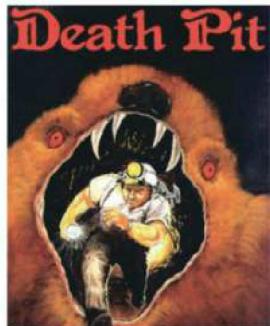
1987

100 | SPECTRUM

Durell's *Turbo Esprit* was incredibly popular on its release, netting impressive scores from all the available Spectrums magazines, including 88% in *Crash*.

Robert White (right) shows Mike Richardson the capabilities of his Oric computer.

Ron Jeffs's *Harrier Attack* started off on Oric, before finding success on other 8-bits.

Clive Townsend being manhandled by a ninja in this memorable photo, which appeared in *Crash* magazine.

acquaintance with Robert and were keen to continue to grow our business, including our budget and compilation business. We had no significant regrets about the deal we did for the Durell catalogue and would probably have done it again if we had our time over."

With the games gone, Robert spent the next two years developing his Insurance Master program. The bold move to stabilise the company paid off and it continues to trade to this day under the name Durell Solutions. "We're still developing and selling insurance software, 20 years on. It doesn't make a lot of money, but it never makes a loss. I've kept a lot of people employed for a long time and I feel quite good about that."

Looking back

Durell has now been around for 27 years, and while only the first four years focused on gaming software, the place holds happy memories for those ambitious young programmers who plied their trade in sleepy Somerset. "They were the best years of my working life," says Mike Richardson. "There's no feeling like finding you're good at something, seeing your work on shop shelves, getting amazing feedback from people enjoying your work, and getting paid well for it as a bonus."

Saboteur creator Clive Townsend, who now runs mobile developer Incognito Games, remembers his coding colleagues with fondness: "I think we were all sad when Durell stopped making games, but I'm proud to have worked with such a talented bunch of people. Robert was brilliant. It was a very relaxed atmosphere, and as we didn't actually have design specs for our games, we didn't really have deadlines either! Many of the game designs grew organically, which meant they were finished when they were finished. I've had lots of fun in the industry since, but often big business and red tape can get in the way of creative development. If only more bosses were like Robert."

Julian Todd of *Fat Worm* fame also remembers Robert as a decent and

☐ HARRIER DOWN

When **RG** interviewed Mike Richardson about *Turbo Esprit* in issue 36, he revealed that he'd formed a new company called Durell Games and was working on *Harrier Attack II* for the PC. The game, which married the classic 2D gameplay of the original with slick 3D visuals, was made available to download in October 2007 after three years in development. It bombed.

"It was a complete disaster," says Mike. "I think I sold something like six copies. I try not to think about it too much. The main thing I learnt was not to try it again. Before I did *Harrier Attack II* I would hear other programmers saying how it was possible for a game to sell millions or none at all, and I didn't believe it. How is it possible to sell nothing of anything? Now I know I can do it."

After that harsh lesson, Mike went on to work for Electronic Arts, helping out on the PC versions of *Burnout Paradise* and the latest *Harry Potter* game. He has since joined up with his former Durell colleague Nick Wilson at iPod/iPhone game developer StarByte Software. His current project is a racing game called *Black Mamba 3D*.

honourable boss: "He barely interfered. Today I do a little bit of management of programmers, and I know it is impossible to hassle them, as you simply annoy them and yourself. Being relaxed is pretty much your only

option, whether you like it or not. I would like to meet Robert again now that I have experienced the other side of business. I am fascinated that he pulled it off and made a living out of us kids. He paid 50p per copy sold, and I got cheques totalling several thousand pounds, so he was very honest. He could easily have not paid me anything."

Robert himself feels that it's important to look forward more than back, yet there are reminders of his firm's gaming legacy all around him. Cover art from various Durell hits adorns the office walls, he keeps in regular touch with many of his old employees – indeed, Ron Jeffs still works with him – and the £100 he used to buy that first Oric is still there on the company balance sheet. Above all that, Durell's games are still remembered and revered by too many people to ever let them fade into obscurity. "I think at Durell we had a lot of really original ideas," he acknowledges, then regales us with a fitting tale. "Just yesterday I was on site talking to a potential customer and he said, 'You're not the Durell who wrote *Harrier Attack*, are you?' And I replied, 'Yeah, that was us', and then his partner came in and piped up, '*Saboteur*! That was a great game!' So yes, it's still a lot of fun. I guess people have fond memories of our games, and I do too."
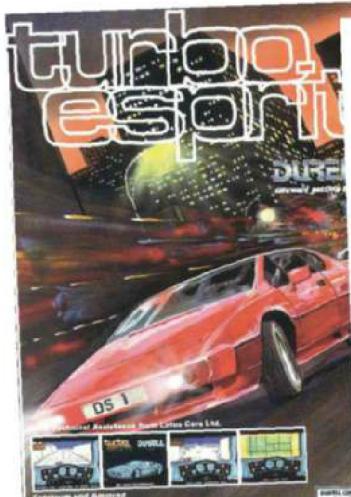
The stunning *Thanatos* remains one of Durell's best Spectrum games.
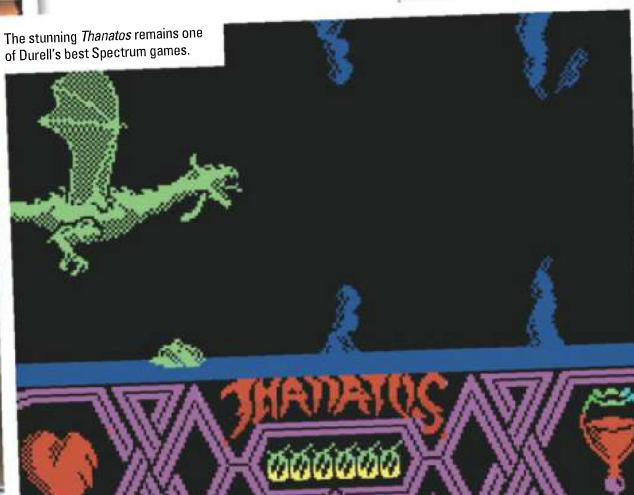
SINCLAIR ZX

Interested in collecting for Sir Clive Sinclair's awesome 8-bit computer? Then the following guide is exactly what you need

» **Manufacturer:** Sinclair Research » **Models:** 16K/48K/128/+2/+3 » **Launched:** 1982 » **Country of origin:** UK

SPECTRUM

The Collector's Guide

» Even Spectrum magazines are collectable, and they're a rich source of information about little-known games.

"...the quality of the colour display is excellent". *Popular Computing Weekly*
"The graphics facilities are great fun". *Personal Computer World*
"...the Spectrum is way ahead of its competitors". *Your Computer*

"The world's best personal computer for under £500."

Sinclair ZX Spectrum
16K RAM £125, 48K RAM £175.

sinclair ZX Spectrum

Sinclair Research Ltd.

» The Spectrum was reasonably priced on its release and that holds true today.

» No Spectrum software collection would be complete without at least a few of Ultimate's classy titles.

WHY IT'S COLLECTABLE

In its lifetime the Spectrum was the inexpensive computer that was accessible to everyone. Now, for a collector, it is much the same. Hardware and software is in abundance, and with very little outlay you can pick up a working machine and a ton of software. On eBay right now, for around a fiver, you could buy enough copies of Sinclair-published titles like *Computer Scrabble* and *Make-A-Chip* to construct a habitable dwelling. But it's not just a case of collecting for the sake of it, or because you owned or played a Spectrum in your youth. There are several very good reasons why it's a great platform to start collecting for.

First off, the original rubber-keyed model really is a thing of beauty. Thanks to its diminutive and distinctive design, it still looks lovely, and you can't honestly say that about many of its boring beige rivals. If you're a collector of 8-bit computers then the original Spectrum just has to be in your possession. It's a design classic.

If you have a Spectrum on your wanted list then the good news is that you'll have no problem picking one up second-hand. The later 48K models, with the blue-coloured keys, are in abundance, and working examples can be picked up at a reasonable price. (Note that a common fault with the original design is a broken keyboard membrane, resulting in one or more keys refusing to work, but this fault is easy to fix – see **www.rwapsoftware.co.uk** for more details.) For the more serious collector there's always the rarer issue 1 version, which includes either 16 or 48K of RAM and is easily identifiable thanks to its lighter, grey-coloured keys. In addition, the lower the serial number, the more valuable the machine as enthusiasts look to acquire one of the first Speccys to have rolled off the production line. There was a memorable case on eBay a while back where a buyer won an issue 1 Spectrum for £97 and then sold the same machine a couple of weeks later for £332. The reason for this healthy profit? The canny buyer noticed that the machine he'd bought had the very low serial number 001-000184

and drew attention to this fact in his listing, thereby increasing interest and driving up the final price.

Also coveted by collectors is the Spectrum 128 computer. It may not be as easy on the eye as the original, thanks to it adopting the comparatively ugly keyboard and casing style introduced with the Sinclair QL, but it has resonance with fans as it was the last true Sinclair Spectrum to be released before Amstrad took over the operation. And speaking of Amstrad, the later +2 and +3 models, with their respective tape and disk drives, are also worth considering if you're looking for a quick and easy way of loading software and would like a Speccy with a proper keyboard.

So there are a variety of models available to suit both your budget and collecting needs. And once you have the hardware, you have access to the platform's vast software library. It's loaded with gems, including some fantastic exclusives like *Back To Skool*, *Deathchase*, *Avalon* and *Chaos*. Then there are the classic titles that began life on the Spectrum before being ported across to other machines, such as *Manic*

» Here's the unusual double-case release of International Matchday. The game typically shipped in a small single-case.

Miner, *Ant Attack*, *The Lords Of Midnight*, *Turbo Esprit* and *Head Over Heels*. The machine is also home to some fine coin-op conversions including *Bomb Jack*, *Chase HQ*, *Rainbow Islands*, *Renegade* and *R-Type*. There's a ton of top licensed stuff too, like *The Trap Door*, *Dan Dare*, *Tai-Pan*, *Cobra* and *The Great Escape*.

Beyond acquiring the best games, or the ones you remember from way back when, there are some nice mini-collections to aim for. An excellent one is the range of early games published by Sinclair that sported the iconic colour 'flash' motif. Most also featured striking inlay art. There were 38 cassette titles, plus a further ten on cartridge, making a rather fitting 48 in total. The carts are particularly collectable and command decent prices, as they were the only games released for Sinclair's Interface 2 add-on. Of the ten, the four from Ultimate are the most sought after.

Which brings us nicely to Ultimate and its Spectrum legacy. The renowned software house released games for most 8-bit computers, but the Spectrum was always its primary platform. There were 17

individual Spectrum titles in total, making it a very realistic collection target, although a few of the later titles, like *Martianoids* and *Bubbler*, are not as common so you'll need to fork out for them. It's surely worth it, as a complete Ultimate collection is a wonderful sight, with the impressive big box releases like *Sabre Wulf*, *Knight Lore* and *Alien 8* forming the centrepiece. And to finish off the collection in style there's one final thing you need to add, but more on that in a few pages...

Ultimate sadly never released any games that took advantage of the Spectrum 128's extra capabilities, but a number of developers did and some of the early 128K-only games are attractive to collectors. You'll certainly see more interest around the 128K versions of *Ghostbusters* or *Three Weeks In Paradise* than the standard 48K releases. The same goes for +3 disk versions. Most software houses put games out on disk, but in the vast majority of cases they were exactly the same as the tapes, only with less painful loading times. There were a few exceptions, however. *North & South*, *Shadow Of The Beast*, *Golden Axe*

and various Level 9 adventures all featured elements that were exclusive to the disk version. Magnetic Scrolls went one further and ditched tape completely for all of its Spectrum games bar *The Pawn*, so classic adventures like *The Guild Of Thieves* and *Jinxter* are only available on disk.

One of the greatest joys of collecting Spectrum software is that you never really know what you might find. If you were to take a chance on a closed box full of games you'll probably find all of the usual suspects like *Horace Goes Skiing* and *RoboCop*, but lurking at the bottom might be that Ultimate game you've been searching for. Or, just maybe, there might be a super-rare, possibly self-published title that has yet to be archived at the awesome World of Spectrum (**www.worldofspectrum.org**). The website currently holds details on more than 10,000 games, yet that number includes around 1,000 that are thought to exist but have yet to be found in the wild. If even more people start collecting for the Spectrum then maybe, collectively, we can fill in all the gaps. Happy hunting.

THE PERIPHERALS

» Microdrives have a deserved reputation for unreliability, but in 1983 they were a cost-effective method of saving data.

» Sinclair advertising supplements like this one provide an interesting look back into gaming's past, plugging all the latest games and peripherals.

ZX INTERFACE 1 & 2

To keep costs down, the original Spectrum was rather sparse around the back; there was no standard serial connector, joystick port or cartridge slot. Besides the TV and tape sockets, there was just an exposed edge of the motherboard to which various peripherals could be connected. But this was all part of Sinclair's grand plan, as in 1983 the company released the ZX Interface 1 and 2. These official add-ons were designed to make the Spectrum complete.

Sitting snugly beneath the computer, the Interface 1 peripheral was a real box of tricks. It provided the user with an RS232 serial connector for plugging in external devices like printers and modems, and a network connector for creating a LAN of up to 64 Speccys, presumably in a bid to get the computer into more classrooms. But the interface's real draw was that it enabled you to connect up to eight of Sinclair's Microdrive storage units.

Using cassette tapes to load and save data was slow, yet speedy random-access disk drives were prohibitively expensive, so the idea of a small and relatively cheap tape-loop cartridge system seemed like a typically astute Sinclair solution. Sadly, the device suffered from months of delays and when it was eventually released, users discovered that the tape in the cartridges could easily stretch or snap, thereby destroying precious data. It was also revealed that if the Spectrum crashed when writing to a cartridge the Microdrive would continue to whirl away and erase all of the data. So the reliability of the system was far from sound, yet the cartridges were cheap, so all the user had to do was make additional backups to one – okay, maybe two – further carts to safeguard against data loss.

Shortly after the release of the Interface 1 and Microdrive, Sinclair unveiled its second add-on. The Interface 2 was a much simpler affair aimed at the Spectrum's swelling number of gamers. It featured twin joystick ports and a slot for plugging in ROM

cartridges, effectively turning the computer into a plug-and-play console. Being able to connect two joysticks was a great idea and gave it an edge over competing joystick interfaces offered by the likes of Kempston and Fuller, but the cartridge slot was only able to deal with software up to 16K in size, thereby ruling out the vast majority of games designed for the 48K Spectrum. The ROM carts were expensive too, at two to three times more than the equivalent cassette version. Punters weren't prepared to pay the extra just to cut out a few minutes of loading time.

At the time of their release, neither interface could be described as a must-have, as there were third-party peripherals available that would probably suit your expansion needs better. But now, for the Sinclair enthusiast, these iconic add-ons are compulsory parts of any Spectrum hardware collection. Key to their appeal is that they perfectly complement the design of the original rubber-keyed computer, so when all of the official components are hooked up together, it really looks the business.
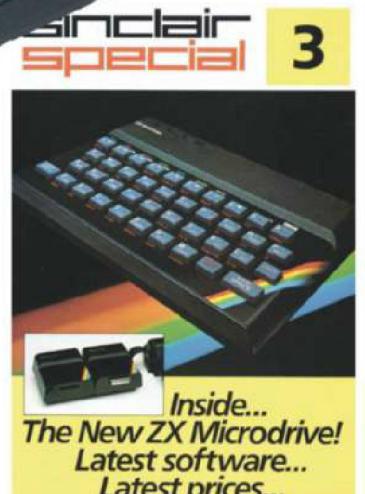
...AND THE REST

01. Kempston Joystick Interface
■ Every serious Speccy gamer needed a joystick, and in the early days there were several competing standards. The Kempston interface quickly emerged as the most popular and was supported by many commercial games. Once you had the interface, you just needed to add a Competition Pro or Zip Stick and you were away.

02. Multiface 3
■ This amazing device needs little introduction. Romantic Robot released several Multifaces over the Spectrum's lifetime, but it was this version, specifically designed for the +3, that was indispensable. With a touch of the magic red button you could back up your tape games to disk and more besides. Absolute bliss.

03. Fuller Box
■ While Spectrum 'beeper' sound has a certain charm, it was one area where the machine was lacking. The Fuller Box addressed this problem by including an AY-3-8912 sound chip – the same one that was later used in the Spectrum 128. It could be programmed by the user and was supported by several games.

04. Currah MicroSpeech
■ Make your Spectrum swear! This speech synthesiser was surprisingly popular, even though it was only fun for about five minutes. A decent number of commercial games supported the unit, including *Lunar Jetman* and *Hunchback*. Curiously, if you loaded *Booty* with it plugged in you'd get to play a hidden game.

05. Opus Discovery
■ There were a number of disk interfaces – Beta, Disciple, etc – that let you hook up a standard disk drive to a Spectrum. The Opus was an all-in-one solution that provided the user with one or two 3.5-inch drives, plus various ports and connectors. It was a high-quality, if expensive, piece of kit.

06. Magnum Light Phaser
■ Several lightguns were released for the Spectrum over the years, but this Sinclair-branded effort had the most impact, as it was bundled with the Spectrum +2 Action Pack. Amstrad also ensured that there was software to support it, including games such as *Operation Wolf* and *The Living Daylights*.

07. Saga Keyboard
■ A lot of people love the Speccy's rubber keys, but from a practical viewpoint only a sadist would want to prod them for any length of time. As with the ZX81 before it, third-party manufacturers like Saga and dk'tronics released replacement keyboards that screwed directly into the machine's casing, allowing relatively pain-free extended use.

The Collector's Guide

TOP 5 GAMES TO PLAY

Dynamite Dan
■ Despite being overshadowed by *Manic Miner* and *Jet Set Willy*, *Dynamite Dan* was an aural and visual explosion of colour and sound that was chock full of nice touches. Tremendously playable and highly addictive.

Nodes Of Yesod
■ Yes, it's a bit like *Underwurlde*, but Odin's homage to Ultimate stands the test of time. With exploring, dodging the red spaceman and hunting for hidden rooms, *Nodes* was arguably more gratifying than *Underwurlde*.
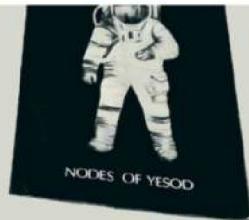
Starquake
■ Stephen Crowe's arcade adventure was another game presented in the style of Ultimate. Yet it was easy to see why *Starquake* was considered better than many of the games it seemed intent on imitating.

Dun Darach
■ This complex and testing graphic adventure from Gargoyle Games introduced great character interaction, making for a more immersive and atmospheric game than its predecessor, *Tir Na Nog*.
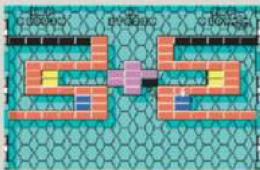
Cybernoid
■ *Cybernoid* wasn't a particularly original concept, but Raffaele Cecco's attention to detail, wonderful graphics and fast gameplay made for a game that you just couldn't put down.

PLAY THESE NEXT

Batty
■ Despite starting out life as a freebie cover tape, *Batty* was the *Breakout* clone that topped them all. *Arkanoid* had been released earlier and the similarities were obvious – ingenious power-ups, aliens, etc – but what propelled *Batty* to the fore was the fantastic simultaneous co-operative two-player mode.

The Hobbit
■ *The Hobbit* was, for many Spectrum owners, their first experience of adventuring. With a story everyone knew, puzzles that weren't too cryptic to be unsolvable and a decent parser, *The Hobbit* remains a nostalgic favourite, even for those gamers who don't usually dabble with text adventures. Wait. Wait. Time passes…

Skool Daze
■ Microsphere's game was a triumph for originality and gameplay. As Eric you must steal your school report from the headmaster's safe by obtaining code letters from teachers, and to get these letters you have to knock them senseless with your catapult. Impish school kids across the land loved *Skool Daze*.
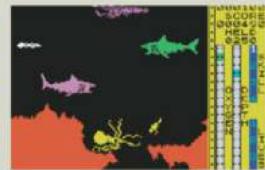
Scuba Dive
■ Durell Software's golden oldie is one that really hits the nostalgia spot. Whether it's the menagerie of sea life, getting lost looking for treasure and running out of air in the bewildering tunnels, or trying to creep past that giant octopus, it was always worth a play. Simple Spectrum gaming but executed brilliantly.

Manic Miner
■ Pixel-perfect jumping, 20 extraordinarily well-designed screens, inventive sprites, and all wrapped in a quirky sense of humour. It had a perfectly weighted learning curve that just egged you on to have one more go. *Manic Miner* was often copied but rarely surpassed as king of the Spectrum platform game.

TOP 5 IMPORT GAMES

El Capitan Trueno
■ A side-scrolling arcade adventure of two parts. Being released by Dinamic it has all the usual hallmarks of that company's output: lovely graphics with great gameplay but also a hugely testing learning curve. Persevere with it.

Lorna
■ *Lorna* by Topo Soft was based on the creation of Spanish comic book artist Alfonso Azpiri. This was a side-scrolling beat-'em-up intermingled with *Deathchase*-style levels and proved to be immensely playable.

Cozumel
■ An illustrated text adventure from Aventuras AD, *Cozumel* was the first in the *Ci-U-Than Trilogy*, all of which were quite superb. You play as an archaeologist, and you've been shipwrecked and lost everything.
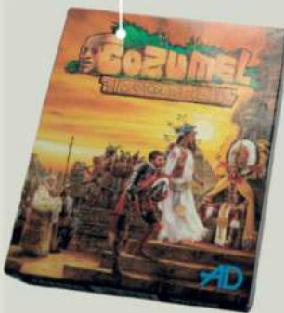
Satan
■ A game of two parts; the first sees you play a platform-jumping barbarian and by the second as a wizard with all the accoutrements required to give Satan a thrashing. Great monochrome graphics combine with Dinamic's typically hard gameplay.

Soviet
■ This top-down shoot-'em-up from Opera Soft sees you in control of a Soviet tank exploring the cities of Vilnius and Baku, searching for hostages while fending off endless waves of enemies. Sounds dull, plays great.

IMPORT THESE NEXT
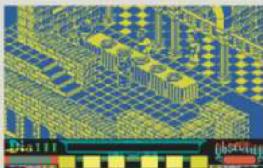
La Abadia Del Crimen
■ Umberto Eco's novel *The Name Of The Rose* appears on the Spectrum, but having not gained Eco's backing it was renamed *La Abadia Del Crimen* (*The Abbey Of Crime*). This isometric arcade adventure from Opera Soft was a great medieval whodunnit in which you solve the puzzles but must also obey abbey rules.

Zona 0
■ If the light bikes in *Tron* are your thing then you would love this 3D rendition of the game. A simple concept made better with the addition of the isometric graphical perspective, but it maintains the obligatory 'one more go' compulsion of the original 2D release. Released in Spain by Topo Soft.

Don Quijote
■ Dinamic's graphic adventure based on Miguel de Cervantes' books from the 17th Century, *Don Quijote* is the story of a man so obsessed with chivalry that he becomes unhinged and sets off on make-believe adventures. Written using Incentive's Graphic Adventure Creator, this adventure is hugely popular in Spain and deservedly so.

Mortadelo Y Filemon II
■ The Spanish certainly like their comic book adaptations, don't they? *Mortadelo Y Filemon II*, based on Francisco Ibáñez's series, was released by Dro Soft and is a very playable scrolling platform game played over two distinct levels, both of which contain some splendidly colourful and well-defined graphics.

Paris-Dakar
■ Zigurat's hugely popular racing game sees you in control of a rally car across three levels. You must also maintain your vehicle by purchasing refurbishments. With a low starting budget and big outgoings, you must also race well to gain sponsorship and the money required for your ongoing repairs.

The Collector's Guide

TOP 5 RAREST PAL GAMES

MacMan In The Treasure Caves
■ There were four *MacMan* titles released by Macmillan in total, and any one of them could have featured as they're all insanely difficult to find. Two things made the *MacMan* games the rarities they are: they sold poorly and they're educational games.

RoboCop 3
■ Ocean's third *RoboCop* game suffered a similar fate to US Gold's third *Indy* game: that of being released in a time when the Spectrum was becoming commercially unviable. It was a reasonably good game but not a patch on the first two *RoboCop* games.

Ship Of The Line
■ There are many examples of games from the formative days that are rare due to being low-volume bedroom-coded productions; even the bigger companies had to start somewhere. Case in point: Richard Shepherd Software with the entirely homemade release of *Ship Of The Line*, including handmade inlay and home-dubbed TDK tape.

Dalek Attack
■ Alternative's game is generally regarded as one of the last full-price Spectrum releases and the last licensed game on the system. This side-scrolling platformer sees you play the Doctor in the Sylvester McCoy regeneration, and the game is much like McCoy's Doctor: instantly forgettable. At least you got a Dalek sticker...

Bored Of The Rings
■ Some games have a very nomadic life. *Bored Of The Rings* has been released by Delta 4, GI Games and Zenobi. CRL then published it for just a couple of months before Silversoft took it on. While common on the Silversoft label, the CRL and Delta 4 variants are very rare.
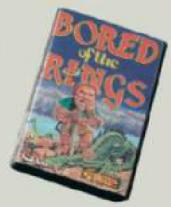
GET THESE NEXT
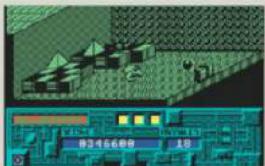
Ballbreaker II
■ Another CRL rarity, but this one is entirely down to poor sales due to its banality. The sequel to *Ballbreaker*, an isometric *Breakout* clone that hardly set the world alight itself, suffered from brain-numbing slowness and a dodgy isometric perspective. Strictly for the collecting completists only...

Indiana Jones And The Fate Of Atlantis
■ The third and final instalment of US Gold's *Indiana Jones* trilogy of games arrived in 1992, well into the twilight years of the Spectrum. Despite playing well, it sold in such disappointing numbers that its status as an instant collectable and rarity was virtually assured.

Specvaders
■ Hewson's *Specvaders* was released early in 1983 amid an avalanche of *Space Invaders* clones. Despite playing well, it sold in such choice, no one game stood out and dominated the sales. Sadly, *Specvaders* was largely anonymous and not helped by uninspired visuals and poor sales. Finding a copy will cost you a pretty penny. Just ask Steve Brown...
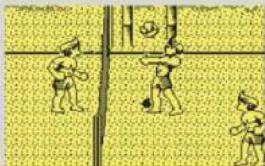
Beach Volley
■ You would think that a game touting sand, sun and ball games with scantily clad beautiful people sounds like a cracking afternoon's entertainment. Released by Ocean in the depths of winter 1989, it barely registered in the sales department. Once again, commercial failure triumphs in creating a collectable.

Sly Spy: Secret Agent
■ While the re-release of *Sly Spy: Secret Agent* is as common as muck, the original Ocean release is a real tough one to locate. Quite why that should be is anyone's guess, as it was a great game and actually sold reasonably well; certainly well enough to warrant resurrecting it for the budget release treatment.

THE JEWEL IN THE CROWN

What? A Spectrum collecting feature without an Ultimate title? Well, why have one when you can have almost the entire back catalogue on disk in one glossy package? Desirable and collectable in equal measure, it's the ultimate compilation…

The games
■ Encompassing virtually all of Ultimate's Spectrum output bar those licensed to US Gold and *Underwurlde*, which was left out due to compatibility issues, this 11-game compilation was a must-have. From the early days of *Jetpac* through to the isometric magic of *Knight Lore* and beyond, there's not a dud game in the box.

The map
■ Frequently missing from the box when bought today, the map of Ultimatum was a previously unreleased illustration by the artistic Tim Stamper. Quite what its purpose was other than to brighten up your bedroom wall is unclear, but that unmistakable Ultimate style made it something to covet by default.

Pushing the envelope
■ The sealed envelope containing the hints sheet is the bane of the collector, as it's a perpetual absentee from *The Collected Works* nowadays. A leaflet containing highlights of a memorable interview with Tim and Chris Stamper conducted by Roger Kean of Newsfield's *Crash* magazine isn't always present either.

Special thanks to 'WoSers' Jarrod Bentley, Andy Startin-Bailey, Craig Stevenson, Tony Barnett, Albert Valls, José Manuel, Bernardo Iborra and Steve Brown for their invaluable help with the feature.

☑ THE SINCLAIR ZX SPECTRUM GAMES YOU NEED TO OWN

180
3D Starstrike
Abadia Del Crimen, La
Academy
Ad Astra
Airwolf
Alien 8
Alien Highway
Alien Syndrome
Android 2
Antics
Ant Attack
Arcadia
Arc Of Yesod
Arkanoid 2: Revenge Of Doh
Astro Marine Corps
Atic Atac
Back To Skool
Barbarian
Bard's Tale, The
Barry McGuigan's World Championship Boxing
Batman
Batman: The Caped Crusader
Batty
Bionic Commando
Bomb Jack
Booty
Boulder Dash
Bounder
Bounty Bob Strikes Back
Brian Bloodaxe
Bruce Lee
Bubble Bobble
Bugaboo (The Flea)
Cabal
Captain Blood
Capitan Trueno, El
Castle Master
Cauldron
Cavelon
Carrier Command
Chaos
Chase HQ
Chuckie Egg
Cobra
Codename Mat
Combat Lynx

Feud

Combat School
Commando
Confuzion
Cybernoid
Cybernoid 2: The Revenge
Cyclone
Daley Thompson's Decathlon
Dan Dare
Dark Side
Dark Star
Deathchase
Deflektor
Deus Ex Machina
Dizzy
Don Quijote
Doomdark's Revenge
Draconus
Dragontorc
Driller
Druid
Dun Darach
Dustin
Dynamite Dan
Dynamite Dan 2
Elevator Action
Elite
Enduro Racer
Enigma Force
Exolon
Fall Guy, The
Fairlight
Fantastic Voyage
Fantasy World Dizzy
Fat Worm Blows A Sparky
Feud
Firefly
Flying Shark
Football Director
Football Manager
Footballer Of The Year
Frankie Goes To Hollywood
Full Throttle
Gauntlet
Ghost'N Goblins
Glider Rider
Great Escape, The
Green Beret
Gunfright

Deathchase
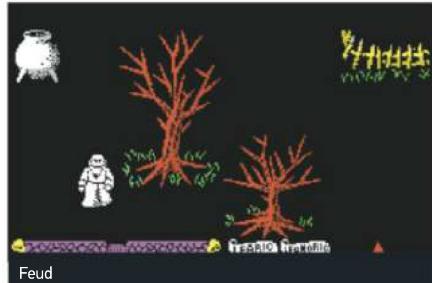
Gryzor
Gyron
Gyroscope
Hall Of The Things
Harvey Headbanger
Head Over Heels
Heartland
Heavy On The Magick
Helter Skelter
Herbert's Dummy Run
Highway Encounter
Hobbit, The
Horace Goes Skiing
Hydrofool
Hysteria
Hypersports
Ice Breaker
Ikari Warriors
Indiana Jones And The Fate Of Atlantis

Match Day II

Into The Eagle's Nest
Jack The Nipper
Jetpac
Jet Set Willy
Jinxter
Joe Blade II
Knight Lore
Knight Tyme
Kokotoni Wilf
Kwik Snax
Laser Squad
Leaderboard
Lemmings
Lords Of Midnight, The
Manic Miner
Marsport
Match Day II
Maziacs
Mercenary
Midnight Resistance
Mikie
Monty On The Run
Movie
Mugsy
Myth: History In The Making
Nebulus
New Zealand Story, The
Night Shift
North & South

EXTREMELY RARE
Games that have less than a few dozen known copies available.

VERY RARE
Very hard to come by. Expect to see only a couple of copies per year.

RARE
You should be able to source these in a reasonable amount of time.

UNCOMMON
You won't find them straight away, but you will after a search.

COMMON
Always just a click away for the average collector.

VERY COMMON
So common you'll find them in most bundles of games you buy.

Nosferatu The Vampyre	☐
Olli & Lissa	☐
Operation Thunderbolt	☐
Operation Wolf	☐
Paperboy	☐
Paris-Dakar	☐
Penetrator	☐
Pentagram	☐
Percy The Potty Pigeon	☐
Ping Pong	☐
Power Drift	☐
Price Of Magik, The	☐
Pyjamarama	☐
Pyracurse	☐
Quazatron	☐
R-Type	☐
Rainbow Islands	☐
Raid Over Moscow	☐
Ranarama	☐
Rebel Star	☐
Rebel Star II	☐
Red Moon	☐
Renegade	☐
Rick Dangerous	☐
Robin Of The Wood	☐
RoboCop	☐
RoboCop 2	☐
Rock Star Ate My Hamster	☐
Rocky Horror Show, The	☐
Rod-Land	☐
Roller Coaster	☐
Saboteur!	☐
Sabre Wulf	☐
Sacred Armour Of Antiriad, The	☐
Satan	☐
Scuba Dive	☐
Sentinel, The	☐
Shadow Of The Beast	☐
Sim City	☐
Sir Lancelot	☐
Sir Fred	☐
Skool Daze	☐
Slap Fight	☐
Southern Belle	☐
Space Gun	☐
Spellbound	☐
Spindizzy	☐

Renegade
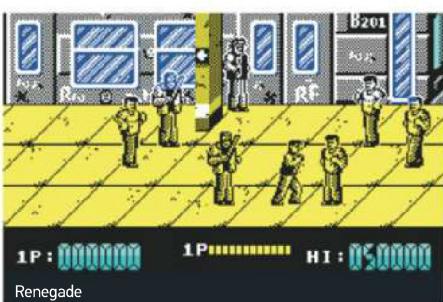
Splat!	☐
Split Personalities	☐
Spy Hunter	☐
Spy vs Spy	☐
Starglider	☐
Starglider 2	☐
Starion	☐
Starquake	☐
Starstrike II	☐
Steve Davis Snooker	☐
Stormbringer	☐
Stormlord	☐
Strangeloop	☐
Stunt Car Racer	☐
Super Pipeline 2	☐
Sweevo's Whirled	☐
Switchblade	☐
Swords And Sorcery	☐
Tai-Pan	☐
Tapper	☐
Target: Renegade	☐
Tau Ceti	☐
Technician Ted: The Megamix	☐
Thanatos	☐
Theatre Europe	☐
Three Weeks In Paradise	☐
Thrust	☐
Thundercats	☐
Tir Na Nog	☐
TLL	☐
Total Eclipse	☐
Trailblazer	☐
Trantor	☐
Trap Door, The	☐
Trashman	☐
Treasure Island Dizzy	☐
Turbo Esprit	☐
Turmoil	☐
Turrican	☐
Turrican II	☐
Underwurlde	☐
Untouchables, The	☐
Urban Upstart	☐
Virus	☐
Way Of The Exploding Fist, The	☐
Way Of The Tiger, The	☐
WEC Le Mans	☐
West Bank	☐
Wheelie	☐
Where Time Stood Still	☐
Who Dares Wins II	☐
Wizard's Lair	☐
Wizball	☐
Wriggler	☐
Xeno	☐
Yie Ar Kung-Fu	☐
Zombi	☐
Zona 0	☐
Zub	☐
Zynaps	☐

Collector Q&A

As well as his impressive Spectrum collection, Steve Brown is the founder of the TZX Vault project

■ **What drew you to the Spectrum over other micros?**
Manic Miner! I remember going to Blackpool around the end of 1983 and while wandering around a newsagent I saw a copy of *Personal Computer Games* with the mutant telephones screen on the cover. After reading the review, I had to have the game.

Just before Christmas my dad told me I was going to get a computer and wanted to know which one I wanted. Without any hesitation I picked the Spectrum and bought a copy of *Manic Miner* ready to play on Christmas morning. Luckily my dad bought me the 48K model!

■ **When did you start collecting games seriously?**
The serious collecting happened by accident. I already owned about 50 or so games back in 2000 when I started the TZX Vault preservation project. Around the beginning of 2001 I started buying games just to plug the gaps in my collection, so that's when it really started.

■ **How many games are in your Spectrum collection?**
I've never actually kept track of how many games I have but if I had to guess I'd say 5,000 plus. I've also got over 600 homebrew adventure games.

■ **What is the most you have spent on a single Spectrum game?**
I once spent £160 on eBay for *Specvaders* by Hewson Consultants, as it was the last of the original-style Hewson titles I needed.

■ **Have you any collecting preferences or quirks?**
I collect games by Mikro-Gen across all formats. Before starting the TZX Vault, I bought some Mikro-Gen games from a local car boot sale, and it made sense to continue collecting Mikro-Gen games as I already had a head start!

■ **Is there one particular game that is eluding you?**
I'm after *Gnasher* by Mikro-Gen for the Spectrum. I have the ZX81 version called *Paint Maze* and the VIC-20 version called *Puckman*, but the Spectrum version is proving to be very elusive. The only mention of it I've ever seen was in one of the early issues of *Crash*, when it was reviewed.

■ **When did you start the TZX Vault project and why?**
I began the TZX Vault project in February 2000. I knew of a few existing Spectrum preservation sites, however there was no central repository to store all the preserved material and there didn't appear to be any collaboration between sites, so I thought I'd try and organise the preservation effort. Luckily I managed to get Andy Barker, Paul Hurd, Tony Barnett and Martijn van der Heide on board very quickly, and the project took off from there.

■ **Any advice to new Spectrum collectors?**
I'd say either stick with the popular titles or be selective. There are [over 10,000 games] in the World of Spectrum database. It's just not possible to own every single title ever released. I'd recommend going for the top 100 games as voted for by visitors to the WOS website.

The Commodore 64 Book™

30th Anniversary Special

C= commodore 64

From the makers of
retro* GAMER

Classic games • Hardware celebrated • Studios revisited

Welcome to

The
Commodore 64
Book ™

30th Anniversary Special

It's hard to believe that the Commodore 64 is now a venerable 30 years old. It seems like only yesterday we were playing genre-defining games like Impossible Mission, Uridium, Paradroid and Wizball, flicking through issues of Zzap!64 and arguing blindly with our Spectrum and Amstrad-owning chums over who had the best machine. Three decades have now passed since the Commodore 64 made its debut and it remains a truly remarkable home computer, trailblazing its way through history thanks to its incredible SID sound chip, classic games and huge support from both the US and European markets (a rarity at the time).

Join us, then, as we look at some of the very best that Commodore's machine had to offer, proving what a remarkable machine it was and continues to be.

In association with retro GAMER magazine

The Commodore 64 Book

Book™

30th Anniversary Special

IMAGINEER OF THE YEAR — DANIELLE DIXON

IMAGINE PUBLISHING

TEAM OF THE YEAR — BOOKAZINES

The Commodore 64 Book
Contents

30 YEARS OF CLASSIC GAMING

Year Released: 1982

Original Price: August 1982 ($595) (USA), December 1982 (£349.99) (UK)

Buy it now for: £10-£15 (eBay)

Associated Magazines: Zzap!64, Commodore User, Commodore Format, Your Commodore

Why the C64 was great… The Commodore 64 was a jack-of-all-trades and a master of many. Success on both sides of the Atlantic meant its software library covered every genre, style and influence possible, with a panache most other machines struggled to equal. Despite Commodore's insistence on pushing it as a business computer with a price to match in the UK, it truly was the gaming platform to own. Even though it looked like a beige breadbin.
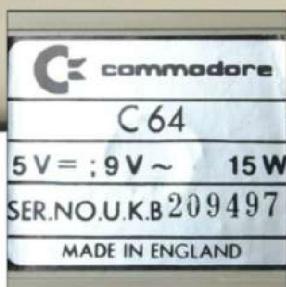
commodore 64

IT'S HARD TO BELIEVE THAT COMMODORE'S POPULAR 8-BIT HOME COMPUTER IS NOW 30 YEARS OLD. IT'S EQUALLY HARD TO IMAGINE WHERE WE'D ALL BE WITHOUT ITS GROUNDBREAKING GAMES AND STUNNING AUDIO CHIP. MAT ALLEN LOOKS BACK AT HOW ONE DECISION BECAME THE GENESIS FOR ARGUABLY THE GREATEST AND BESTSELLING HOME COMPUTER EVER

Commodore was not immediately looking for a successor to the Vic-20. The launch had been a bigger success than expected, and work on the newly commissioned video and sound chips was reaching a conclusion. The new VIC-II video chip was an improvement on the chip inside the Vic-20 and utilised (or borrowed you might say) features from other leading computers and consoles of the time. The SID sound chip was something new, a three-channel synthesiser that would end up blowing away the competition for years to come.

Both chips had been scheduled for use in arcade or dedicated videogames. However upon their completion in November 1981, Jack Tramiel, boss of Commodore, decided they would instead be used in the company's next home computer. A computer that he wanted to debut at the Las Vegas CES in January 1982. A computer that had yet to be designed! Not to be deterred, the new machine was designed in two days and five prototypes were built by the end of the year.

With the Microsoft BASIC of the Vic20 hastily rewritten for use on the new hardware, the machine was ready for show. Apart from the impressive specifications of the C64, which exceeded anything on the market, no one could understand how Commodore was proposing to sell it for just $595. Their jaws would have been through the floor if they'd known it would be initially manufactured for just $135.

The project and its inherent cost savings probably would not have happened without the acquisition of MOS Technology several years earlier. Not only did they have the expertise and experience, with many other companies using the 6502 CPU, but also the production line facilities enabled chips to be manufactured a lot cheaper and quicker than other companies could achieve. Using the same case and keyboard as the Vic-20 was another factor; aside from halving the cartridge slot size to make way for an internal modulator, the design of both was actually somewhat similar.

The C64 went on sale in August 1982 and was an immediate success. A few issues had been fixed before launch, and a few,

Not so big in Japan

Many people do not realise Commodore had launched the Vic-20 in Japan (as the Vic-1001) several months before it was available in the West in an attempt to acquire market share in the territory. With the imminent launch of the C64, Commodore had a second stab at Japan; however the aim was to sell an entry-level machine at a much cheaper price than the C64 would be in the US. The resultant MAX computer, encased in a membrane keyboard, was hardware-wise very similar to a normal C64. To save costs there was no serial port, no monitor port, virtually no RAM and no internal OS, meaning for all intents and purposes it was a console with a keyboard. Games could only be loaded from cartridge, and the keyboard had little real use unless one of the limited programming modules was acquired. Unsurprisingly the machine hardly sold and today commands a respectable collector value. Most of the games were programmed by HAL Labs (who are now with Nintendo) and are equally collectable. In a shrewd move, Commodore added a MAX mode to the C64 meaning that the cartridges will play fine on it.

"APART FROM THE IMPRESSIVE SPECIFICATIONS OF THE C64, WHICH EXCEEDED ANYTHING ON THE MARKET, NO ONE COULD UNDERSTAND JUST HOW COMMODORE WAS PROPOSING TO SELL IT FOR JUST $595"

commodore 64

such as those perfected by Ultimate, and anything vector graphic driven. The design of the C64 was not suited to either. That wasn't to say it couldn't be done, as the classic *Mercenary* and the conversion of *Head Over Heels* demonstrate. The C64 made a better stab at anything coming its way from the Spectrum compared to anything going the other way.

However C64 users in the UK didn't just have to rely on homegrown games to satisfy their needs. From early on, they were able to sample the delights of American games, courtesy of companies such as US Gold and Ariolasoft releasing or importing them for sale. Some users, though, would take to importing the games themselves. Quite often this would be the case with some high profile titles, until the companies in question (Infocom, we look at you) decided to send them over here.

For the first couple of years of the C64's life, games from the likes of Epyx, Access, Synapse, Broderbund and Infocom were better than almost anything programmed in Europe. Watching *Impossible Mission*, *Beach-Head*, *Choplifter* or *Lode Runner* being demonstrated was amazing. This was also a time when Electronic Arts published innovative games such as *M.U.L.E.*, *Racing Destruction Set* and *Skyfox* instead of bundles of shovelware. Thankfully programmers this side of the pond got their backsides in gear and started matching the imported efforts.

You have to begin with Jeff Minter, creator of weird addictive programs, who was given a C64 very early on as part of his deal with HES in the US. The three games *Ancipital*, *Revenge Of The Mutant Camels* and *Iridis Alpha* are some of his best work, and would have been hard to achieve on any other platform. He was just the first of many developers, as Tony Crowther (*Loco*, *Blagger*), Geoff Crammond (*Revs*, *The Sentinel*), Archer Maclean (*Dropzone*, *IK*), Jon Hare and Chris Yates (*Parallax*, *Wizball*), and Paul Woakes (*Encounter*, *Mercenary*) would all follow.

including the notorious "sparkle" effect, would be dealt with in the months immediately after. Most of these were fixed by the time the second revision (B) motherboard was produced. Revision A machines are today hard to find (estimated less than 0.2% of the 25 odd million production run) and are collectable because of their quirks and bugs.

From the off it was obvious Commodore (aka Tramiel himself) meant business and was going for the throats of the competition, especially Atari. The price of the C64 was down to $395 before Christmas, and was under $200 by 1985, with manufacturing costs

One step beyond
Although technically superseded by the Amiga, the C64 was still going strong by 1990. Keen to capitalise on the machine's consistent popularity, Commodore commissioned an internal project to upgrade the computer for the new decade. The result was the C65, a machine with considerable power inside (such as the new VIC-III chip, VGA capability, greater RAM, and two SID chips for stereo sound), but with the ability to still play roughly three-quarters of the current C64 games.
Anticipation and excitement about the machine grew, as witnessed by copious letter writing to magazines at the time. And then for whatever reason it was cancelled in mid-1991, apparently at the request of then chairman Irving Gould in deference to keeping the C64 alive. The potential that the machine offered would never be realised.
That was not to say no one would get to play with the hardware. When Commodore was liquidated in 1994, many of the machines housed at its Toronto office sneaked out into the general domain and were rapidly grabbed by fans and collectors, though it was soon found many were in various states of completion and revision. Today it remains an interesting curio, one sadly that never came to be.

"JAWS WOULD HAVE BEEN THROUGH THE FLOOR IF THEY'D KNOWN IT WOULD BE INITIALLY MANUFACTURED FOR $135"

cut by two-thirds. By that time the C64 was the home computer to own in the US. This was in contrast to the UK, where Commodore's operation was a little less price conscious. It stayed above the £200 mark for a long time, and peripheral prices were of a similar nature; at one point the disk drive cost more than the machine itself!

This does seem strange given the Commodore 64 had far more competition in Europe than in the US, especially from the Spectrum. Whilst the C64 won the hearts of gamers in the Netherlands, Germany and Scandinavia, it was beaten to number one in several other countries including the UK, France and Spain. In the UK the battle was always with the Spectrum. At almost half the price for much of the Eighties, the Spectrum was a cheaper alternative that was also home to many classic games.

Why pick the C64 over the Spectrum? Anecdotal evidence points to its form and function as much as its power (the "real" keyboard being a selling point), with the price tag partly seen as a badge of status. Playground battles would be fought with both sides arguing their case, with levels of tribal loyalty and dedication rarely seen since. Technically the C64 was streets ahead, but there were aspects where the Spectrum was superior. That was mainly isometric adventures,

Just as can be seen between Western and Japanese game design today, there was a similar dichotomy in games produced here and over there. Different influences, different cultures, different trains of thought. There was also another good reason for why the US produced the majority of the RPGs, strategy games and adventures: the disk drive. By 1984 the datasette had all but been abandoned by users and publishers alike in the US, whereas in the UK it was seen as a cheap method of storage pioneered by the continued success of other computers. There are numerous examples of two versions of a game being written, one example being the movie tie-in *Aliens*. The Electric Dreams UK version is a first-person adventure type affair, whereas the Activision US release is multiload, and portrays the whole film in various stages. In terms of execution, the UK version recreates the terror of the film, whereas the US version is more "big-budget" but far less effective in its execution.

Like it or loathe it, the tape format would define the games written in the UK for the first few years of the C64's life, until the inevitable progress and demand for bigger games forced more multiload antics onto the hapless users. Let's face it, tape wasn't really cut out for that sort of access, but with the introduction of fast loaders into the UK

» C64 owners finally got a taste of Julian Gollop's genius when this masterpiece of strategic turn-based warfare was released for formats other than the Spectrum.

» No hardware is ever immune from controversy, and these three games are proof positive the clones can be as good as the real thing: *Cuthbert In The Jungle, Katakis, The Great Giana Sisters.*

» Using the flexibility of the disk drive, there were some terrific and unique ideas prevalent on the C64, including this trio of releases from Activision: *Alter Ego (top left)*, *LCP (above)*, *Portal (bottom left)*.

» All the Bs for arcade conversions, this set of three were some of the best realised on the limited, by comparison, hardware: Buggy Boy, Bionic Commando, *Bubble Bobble*.

» A Spectrum conversion you all cry? For sure, but the C64 showed it was equal to the task of running the best software its rival had to offer.

» Paul Woakes needs to be tracked down to explain just how he managed to fit a whole world of wonder into 64K of RAM. Who says the C64 can't do vectors?

(another pioneering moment from Jeff Minter), things became a little more bearable.

Even at the peak of its popularity, it has been said that only around 10% of all C64 owners had a disk drive. Which by the powers of deduction means 90% were stuck with tape loading only. As mentioned earlier, this was mainly down to Commodore's high pricing policy in the UK. Hence to accommodate this fact, it is no surprise that a lot of games were designed for single load only, squeezing as much as possible into that 64K (or less). The benefit to those who had access to both formats is obvious; the C64 repeatedly delivered quality games in all genres and interests and wasn't confined to a subset of possibilities.

Those Commodore 64 owners out there are already no doubt counting on their fingers all the games they loved and separating them into single and multi load. Unless you had a disk drive fairly early on, it would be expected that the single loaders are going to win out here. Anyone who played *Turbo Outrun* on tape will know how excruciating it could be (having said that, before fast loaders appeared, loading from disk was almost as bad). Sometimes it was done right; having the next level load during sequences in *Dragon's Lair 2* or *Hawkeye* for example, or playing a small mini-game such as *Invaders* or *Painter*. It also gave rise to the "loader tune" to occupy gamers as they patiently waited for their latest epic to dribble into memory. Music for the C64 would turn out to be probably the defining point of its lifespan.

Aside from tapes and disks, the C64 could also use cartridges. Despite the number of games available being tiny compared to the overall catalogue (just some 300 odd releases), there were some great titles to be had, though many of them were only available on that format, and only available in the US. US Gold did some balancing by releasing some of the Sega titles in the UK, Atarisoft published a few of their own in Europe, and HES released games on tape, but the majority stayed behind.

Most of Commodore's own efforts can be ignored, although *International Soccer* is impossible to avoid, and *Wizard Of Wor* is one of the best conversions available for the C64. Other titles people should look to grab from abroad include *Gyruss* by Parker Bros, *Diamond Mine* by Roklan, *Moondust* by Creative, *Maze Master* by HES and *Jumpman Junior* by Epyx. Look to Australia and cartridge versions of classics including *Leaderboard* and *Ghostbusters* can be found, as Home Entertainment Suppliers had a licence to produce them in the late Eighties.
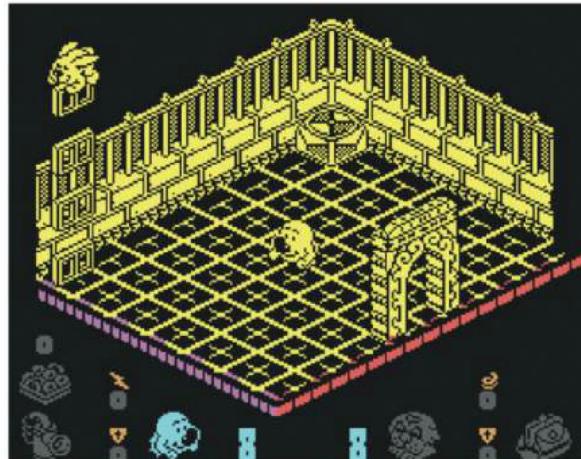
"EVEN AT THE PEAK OF ITS POPULARITY, IT HAS BEEN SAID THAT ONLY AROUND 10% OF ALL C64 OWNERS HAD A DISK DRIVE"

Not all the important cartridges were games however. Anyone with a disk drive needed a utility cartridge to go with it, and examples such as Datel's Action Replay, the Final Cartridge, the Expert and Super Snapshot were all good sellers. They not only performed quick copying of disks, but enabled pokes to be entered, had built-in fast loaders, allowed easy use of disk commands and more. In today's disk heavy environment, they are an even more vital necessity.

The other essential weapon was the review magazine. After the success of Crash for Spectrum

» Before *Micro Machines* came *Slicks*, a very similar game, and one of the best overhead racers available for the C64.

"SID IS UNIQUE. THERE WAS NOTHING LIKE IT BEFORE AND THERE HAS BEEN NOTHING LIKE IT SINCE"

» **Above:** RPG fans were well catered for, with releases from Interplay, SSI, Origin and Electronic Arts, and more recently the massive 14 disk home-brew epic *Newcomer*.

owners, Newsfield launched Zzap!64 in April 1985, and for the next three or so years, it was the best thing on the planet – if you were a C64 owner that was. With the attack of pointy hair and pointed words from the twin terrors of Gary Penn and Julian Rignall, gamers felt safe that if they said something was good, then it was going to be good.

The magazine lost its way after that point due to various changes, but was always a good read even if it had lost some of its magic. Coming late into the show was Commodore Format, which didn't launch until the end of 1990 when the C64GS was released. Zzap!64 had never really had a proper rival until then, so late in the C64's life, there was suddenly some real competitive spirit. Format lasted until 1995, which was some going for a magazine with an 8-bit theme.

Despite the effort of magazines to keep gamers on the straight and narrow, some people still bought duff software. But there was method to the madness; it was all to do with the music. It may seem strange, but some games (*Comic Bakery*, *Miami Vice*, *Rambo* and *Knucklebusters*) despite being less than great, still sold rather well due to exceptional SID tracks. Music more than anything else elevated the C64 above its contemporaries and made playing games more than just bleeps and bloops. Where else has one chip inspired countless remixes, paid-for music albums, samples in commercial records, organised concerts and a professional mixing/composing station?

SID is unique. There was nothing like it before and there has been nothing like it since. There is a distinctive form to its sound, and those musicians capable of extracting the most from it were

almost heralded as gods at the time. Be it the frantic fast paced nature of *Monty On The Run* (Rob Hubbard), the psychedelic trippy *Parallax* (Martin Galway), the oriental themes of the *Last Ninja* (Ben Daglish and Anthony Lees), the industrial drum based rhythms from Matt Gray or Steve Rowlands' bouncy house-like tracks, there was something for all. Melody was key; many classic SID tracks are instantly hummable and maddeningly catchy.

Samples, in the form of instruments or voices, as part of the music became popular after Martin Galway and Chris Hülsbeck started using them in compositions in 1987. When utilised homogeneously, in such pieces as *Savage* and *Turbo Outrun* by the Maniacs of Noise or *Combat School* by Galway, they really added something to the end production. Unfortunately Commodore fixed the bug in the 6581 SID chip that allowed samples to be played for the 8580 revision, meaning they became very quiet. Fortunately there is a solution available to fix this "problem".

With the graphics, music and games making the C64 a global success, it may not be surprising that all of Commodore's 8-bit hardware that followed never came anywhere close. You could say that was partly due to its popularity – people saw no need to change, apart from going onwards to the Amiga or Atari ST. For example, the C16 and Plus 4 were nice machines but only ever occupied a niche market space that disappeared once the price of the C64 came down.

Whereas the C128 on paper looked an interesting prospect, the idea of a better equipped C64 with twice the memory and processor speed could have been seized upon by developers but never was. Very little C128-only software was written as users voted with their wallets and stuck with the C64 instead. Early on in the C64's life, Commodore marketed the SX64, an alleged portable version (or not, if you've ever tried carrying one about) of the hardware with a built-in monitor and disk drive. However with an initial price tag in the US of just under $1,000 (and a similar value here), it was never destined to sell in large amounts. Having said that, it isn't difficult to find them being sold privately today in the US or Germany.

Commodore's biggest error was trying to compete for the space occupied by Sega and Nintendo in the console market. It is similar to the mistake committed by Amstrad with the GX4000. The idea of attracting those users across was sound, but in true Commodore fashion, it got the execution horribly wrong. The main problem was the price of the new C64GS (Games System) unit: at £100 it was only just less than a normal C64 bundle. The joystick included with the console was horrible, and with the lack of keyboard, many of the older cartridges could not be played properly.

It did kick off the interest in cartridge based games again, albeit

» The C64 was still home to new development talent into the Nineties as witnessed by the Rowlands brothers' games, which always had the highest production values possible.
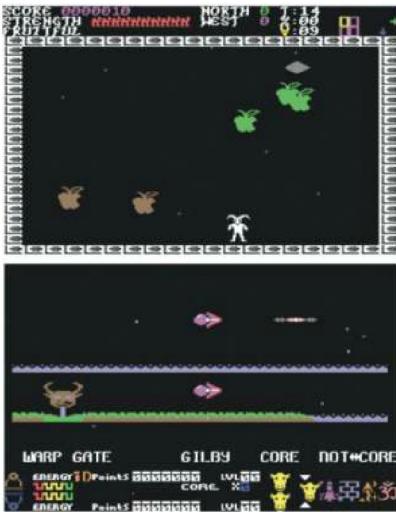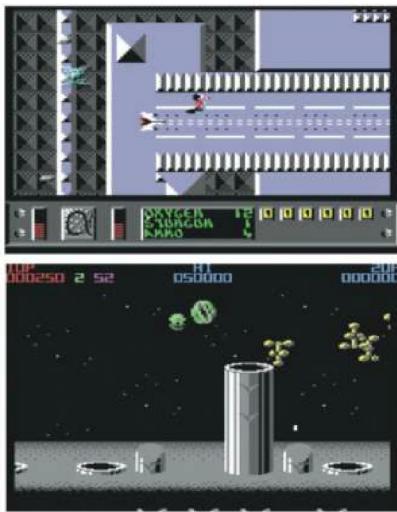
» Sensible Software was known for producing unsensible games, including the two that kick-started its success: *Parallax* and *Wizball*.

» Jeff Minter was behind the C64 after progressing from the Vic20, and all of his games for the machine have a unique quirkiness about them.

» Indescribably brilliant, and a concept seldom used since. Control the influence device to destroy or takeover all of the rogue droids aboard eight ships.

» Just about every C64 owner will have played *International Soccer* at some point, but there were other great cartridges to get including the conversion of *Wizard Of Wor* and Ocean's range for the 64GS.
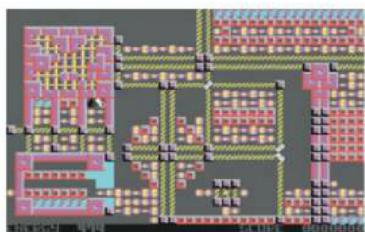
» Just because it was budget did not mean it was bad. There were a number of undiscovered gems including *Spore* and *Warhawk*, plus the best-value game ever, *Thrust*.

briefly, and there were some excellent new titles available for a slightly higher than expected price tag – the majority coming from Ocean. There was also a lot of confusion at the time as many people thought the new cartridges would not actually work with a normal C64; as a remedy many games had stickers positioned prominently on the front, pointing out they could be used with any machine. In the end roughly a third of the 100,000 units manufactured were sold, with the rest being broken down for use in C64C models instead.

The C64 had already gotten an update in its own right in 1987 with the introduction of a new slim-line design to match the Amiga, and a slight name change to the C64C. The internals of the machine were redesigned and decreased chip wise along with the aforementioned SID revision, although some early C64C models do have the 6581 inside. It was still business as usual for sales, and the C64 kept selling and kept being popular despite the release of vastly more powerful hardware and consoles experiencing a resurgence. It was also a reason why the C65 project was cancelled (see boxout).

Where the C64GS had failed in attracting the next generation, the ordinary C64 succeeded. With the turn of the decade, interest in the ageing technology would be expected to decrease, and yet a new wave of younger users was just taking their first steps. On their heels was a new set of programming talent looking to keep the machine alive, and maybe show a few tricks that established teams would utilise themselves. If games such as *Turrican*, *Turbocharge*, *Mayhem In Monsterland*, *Battle Command* and *Elvira 2* had been released earlier in the machine's lifespan, who knows where development could have led. What is certain is that constant innovation and experimentation with the hardware made it do things the designers never conceived as being possible.

In 1993 Commodore announced it was finally halting production of new C64 units. Eleven years is a very long time in today's terms for manufacturing essentially the same piece of hardware. It even managed to outlive Commodore's own demise the following year, as commercial software was still available to buy into 1995. From then on, it was the era of home-brew and fans supporting Commodore's popular machine.

Home-brew is merely a technical term for it, as unlike the Atari 2600 or NES, ordinary users were programming their own games and selling them (and many did) since the launch of the C64. Without the support of retail shops, it meant distribution went back to being word-of-mouth, mail order and private advertisements. In the last ten years, thanks must go to Russ Michaels (Electric Boys Software) and Jon Wells for pioneering the process and today

"CONSTANT INNOVATION AND EXPERIMENTATION WITH THE HARDWARE MADE IT DO THINGS THE DESIGNERS NEVER CONCEIVED AS BEING POSSIBLE"

there are several groups releasing "for money" software including Protovision and Cronosoft, along with many others doing it for free.

One thing is also certain: a disk drive is an essential part of owning a C64 today and is now highly affordable. With the efforts of groups such as Gamebase64 and individuals such as Peter Rittwage to document and preserve all games ever released, and cables available from various outlets, programs can be transferred from PC to real floppies easily to play on a proper C64. Many new game releases are disk only. Like many other 8-bit machines, the future is still active and bright for hardware celebrating its thirtieth birthday.

I want my DTV
The origins of the DTV (Direct-To-TV) unit lie with the C-One project, created and designed by Jeri Ellsworth. Conceived as a way to emulate the C64 as closely as possible through software, it eventually progressed into a platform capable of handling many other formats due to the unique nature of its powerful design. Although the C-One was aimed at a developers' market, it did not go unnoticed. Mammoth Toys signed a deal with Ellsworth to produce a computer-on-a-chip version for use in a self-contained games joystick, similar to many already sold by companies such as Jakk's Pacific. With the project completed in a few months, it went on sale just before Christmas 2004 and sold more than a quarter of a million units.
The later PAL version has several improvements and a more refined games line-up, making it the preferential choice of purchase. Not only are there several Easter eggs to find, the unit is also fairly easy to hack and alter due to its C-One origins, meaning amongst other things, new software can be loaded into the unit and extra joystick ports added for two-player games. The C64 lives on, though maybe not quite in the format people expected!

commodore 64

PERFECT TEN GAMES

The Commodore 64 has a staggering selection of great games across a number of different genres, so choosing a top ten was always going to be a tricky process that required a lot of thought. Below then are a selection of the best games on the system. How many of them have you played?

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02

03
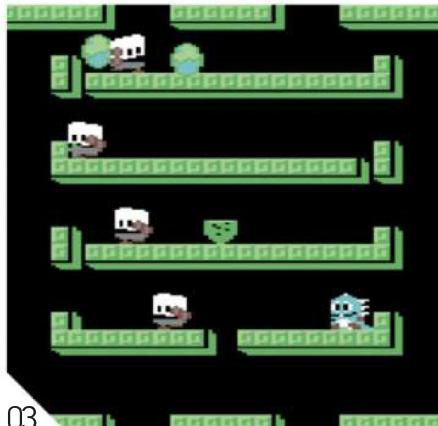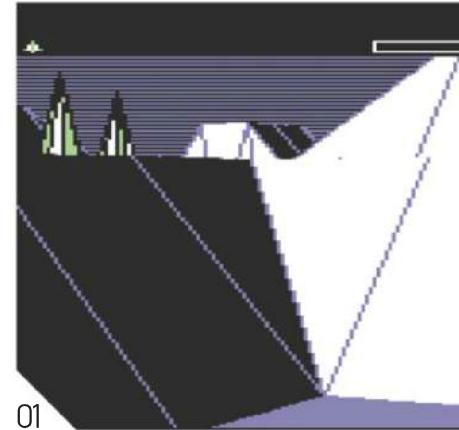
04

THE SENTINEL

» **RELEASED:** 1986
» **PUBLISHED BY:** FIREBIRD
» **CREATED BY:** GEOFF CRAMMOND
» **BY THE SAME DEVELOPER:** STUNT CAR RACER

01 **Geoff Crammond's name may be synonymous with racing games, but when he wasn't pouring his heart and soul into his latest *Grand Prix* title, he was adept at turning his hand to all sorts of different genres, with *The Sentinel* being a perfect example of his handiwork.** Haunting and with a meticulously designed game engine that gives a tremendous sense of scale and depth, Crammond's *Sentinel* was one of the best strategy games on the C64 – although to be fair, it initially appeared on the BBC Micro – and even today offers a worryingly addictive challenge. Best of all, emulation means you no longer have to endure those lengthy screen loads. Lovely!

IK+

» **RELEASED:** 1987
» **PUBLISHED BY:** SYSTEM 3
» **CREATED BY:** ARCHER MACLEAN
» **BY THE SAME DEVELOPER:** MERCURY

02 **There had been previous games involving the slamming of bodily appendages against each other, in a sweaty contest of stamina and skill, but it was Archer Maclean's *IK+* which was first to ménage-à-trois with the concept – metaphorically speaking.** It revolutionised the mechanics of games like *Way Of The Exploding Fist* and *Karate Champ*, and also incredibly well on the humble C64. Music was by Rob Hubbard and while there was only one background, it was filled with many clever Easter Eggs (those joyous bonuses you could spend months discovering). The fluidity of control made it easy to initially play, but this was backed-up by a complex system which rewarded continued practice. A classic.

BUBBLE BOBBLE

» **RELEASED:** 1987
» **PUBLISHED BY:** FIREBIRD
» **CREATED BY:** SOFTWARE CREATIONS
» **BY THE SAME DEVELOPER:** SLY SPY: SECRET AGENT

03 **There have been plenty of classic coin-op conversions on Commodore's mighty 8-bit, but *Bubble Bobble* ranks as one of the best.** From its cute, vibrant – if slightly squashed looking – visuals to the outstanding, bouncy music, the C64 perfectly captured the spirit of the original arcade hit and proved to be the perfect game to show-off to your Spectrum and Amstrad owning mates. It might not feature all the secrets that appeared in the original arcade game and having to press up on the joystick in order to jump is no substitute for a proper fire button, but if you're looking for an extremely competent conversion of a classic arcade hit, look no further. A superb conversion that shouldn't be missed.

MAYHEM IN MONSTER LAND

» **RELEASED:** 1993
» **PUBLISHED BY:** APEX COMPUTER PRODUCTIONS
» **CREATED BY:** CREATURES 2
» **BY THE SAME DEVELOPER:** CREATURES

04 **There was no question of this not making the Top 10, what with it being regarded by many as the C64's last great release both in terms of gameplay and sheer technical achievement.** As most already know, it infamously used a "bug" in the graphics chip, which allowed entire screen scrolling and therefore much smoother and faster gameplay. Despite being a C64 title it has all the speed and tactile control you'd expect from an early 1990s platformer, which not only guarantees it a place here but also means it's still great to play even today. Being a dinosaur and returning colour to the land has never been such fun.

TURRICAN

» **RELEASED:** 1990
» **PUBLISHED BY:** RAINBOW ARTS
» **CREATED BY:** MANFRED TRENZ
» **BY THE SAME DEVELOPER:** THE GREAT GIANA SISTERS

05 **There's an unwritten law in videogames that states: all C64 lists must feature at least one Manfred Trenz game.** While many will no doubt argue that Trenz's *Turrican II* is clearly the better game, we've decided to stick with the original, mainly because there was nothing quite else like it when it first appeared in 1990. It may well have borrowed heavily from obscure coin-op *Psycho-Nics-Oscar*, but Trenz's technical wizardry of Commodore's machine simply blew us away, and it still manages to impress today.
Part platformer, part shooter, *Turrican* features incredible visuals, a stunning score by music maestro Chris Hülsbeck and some of the most frenetic gameplay around. It fully deserves every accolade that has been bestowed on it.
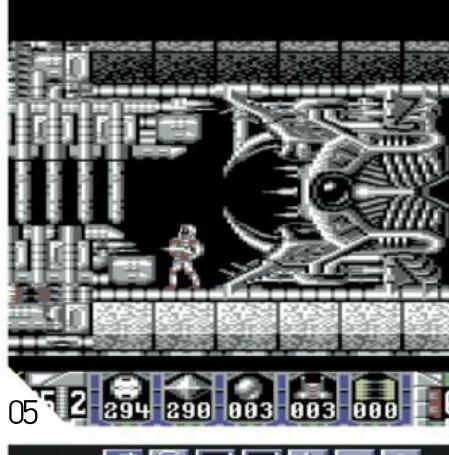
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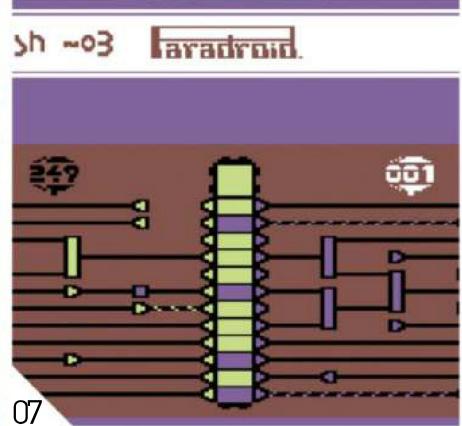
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IMPOSSIBLE MISSION

- » **RELEASED:** 1984
- » **PUBLISHED BY:** US GOLD
- » **CREATED BY:** DENNIS CASWELL
- » **BY THE SAME DEVELOPER:** PHASER PATROL

06 We featured a Making Of article on Dennis Caswell's timeless classic in Issue 22, so by now all of you should have had a chance to experience this classic game. *Impossible Mission* was a perfect blend of joystick waggling dexterity (especially when avoiding the terrifying spheres of floaty-electric-death), and also tricky puzzles (many had problems with the final password-piece assembly). Although its premise of searching furniture (to find those elusive passwords) and avoiding robots may sound nauseatingly simple, it made for a game, which was easy to get into but difficult to put down. Although ported to several other systems, for us the C64 original is still the best version.

PARADROID

- » **RELEASED:** 1985
- » **PUBLISHED BY:** HEWSON
- » **CREATED BY:** ANDREW BRAYBROOK
- » **BY THE SAME DEVELOPER:** URIDIUM

07 Ask any C64 owner to name their favourite games, and chances are that this superb effort from Andrew Braybrook will almost always make their top five.
Taking control of a weak prototype droid, your aim is to simply clear each boarded spaceship (of which there are eight) of its out-of-control robots. While your droid is woefully underpowered (even Dusty Bin could have it in a scrap) it does retain the unique ability to transfer itself into any available droid (albeit for a limited amount of time). This enables it to take out the ship's more dangerous foes (via a charming mini-game) and adds an interesting play mechanic. With its subtle blend of strategy and blasting, *Paradroid* deserves to be in every C64 owner's collection.

WIZBALL

- » **RELEASED:** 1987
- » **PUBLISHED BY:** OCEAN
- » **CREATED BY:** SENSIBLE SOFTWARE
- » **BY THE SAME DEVELOPER:** PARALLAX

08 Playing *Wizball* was a rites of passage for many Commodore 64 owners and became more than ample ammunition for those who wanted to taunt their CPC and ZX Spectrum owning peers.
Insanely smooth scrolling, a scintillating soundtrack from the always dependable Martin Galway and its slick blending of genres means that *Wizball* will forever remain within the higher echelons of Commodore 64 classics. It might well have taken a while to get used to your ball's incessant bouncing, but once you finally mastered it and collected a few power-ups *Wizball*'s true identify and depth are revealed. Quite possibly one of the most beautifully crafted C64 games that you'll ever have the privilege to play.

PROJECT FIRESTART

- » **RELEASED:** 1989
- » **PUBLISHED BY:** DYNAMIX
- » **CREATED BY:** ELECTRONIC ARTS
- » **BY THE SAME DEVELOPER:** RISE OF THE DRAGON

09 Many games claim to have pioneered the survival-horror genre but, while others came before it, *Project Firestart* is one of the very best and is still supremely enjoyable today.
Your task is to dock with a research vessel in space and find out why there's been no communication. From the start, when you see the body of a dead crewmember who has written the word "danger" in their own blood, you know it's going to be an incredibly tense mission with plenty of twists and turns. Throughout the ship are mutilated bodies, log reports, even a survivor; then you encounter the terrifying invisible enemies, which randomly appear. Multiple endings guarantee regular returns to that hellish place.

ZAK MCKRACKEN AND THE ALIEN MINDBENDERS

- » **RELEASED:** 1988
- » **PUBLISHED BY:** LUCASARTS
- » **CREATED BY:** IN-HOUSE
- » **BY THE SAME DEVELOPER:** MANIAC MANSION

10 It's only fair to list one of Lucasarts' excellent games. But we can already hear a great disturbance, as if millions of voices suddenly cried out in terror, due to our choice. Yes, we could have listed *Maniac Mansion*, but everyone knows *Maniac Mansion*. *Zak McKracken* is arguably just as good, and the journalistic setting struck a chord in the office. Traversing the entire globe Zak encounters aliens disguised with Groucho Marx style nose-glasses and cowboy hats. Throw into the mix wacky sidekicks, a bus which travels to mars, plus some bitingly witty newspaper headlines, and you have one hell of a crazy adventure.

02 03 04

10

commodore 64
and the rest...

Loved by all who were fortunate enough to own one (and coveted by those who weren't) Commodore's C64 is one of gaming's greatest success stories and boasts a stunning array of classic titles. How many did you own?

16 17 18 19

25 26 27 28

34 35 36 37

43 44 45 46

52 53 54 55

61 62 63 64

70 71 72 73

79 80 81 82
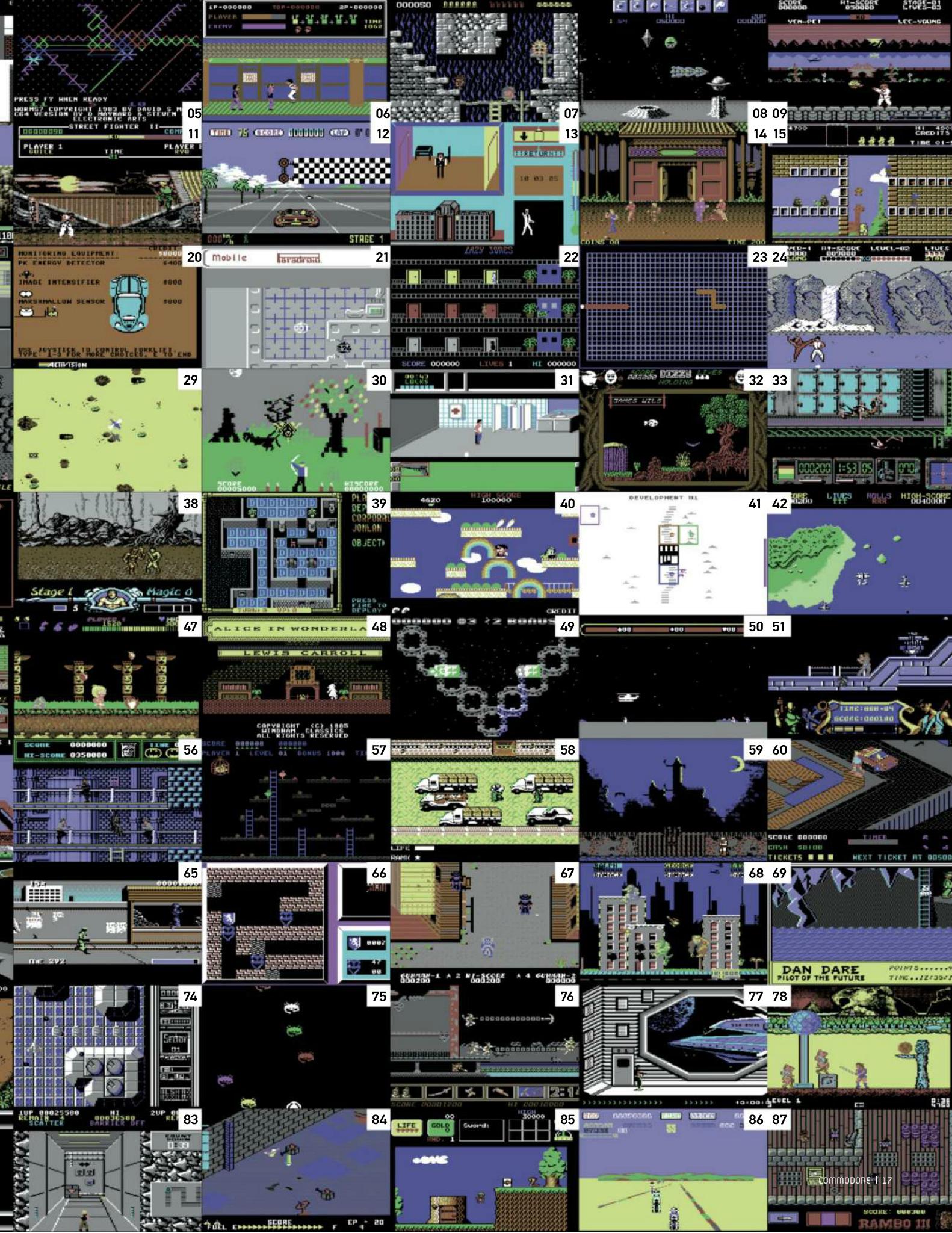
BARBARIAN: THE ULTIMATE WARRIOR

OFF WITH HIS HEAD!

» **PUBLISHER** PALACE SOFTWARE
» **RELEASED:** 1987
» **GENRE:** BEAT-'EM-UP
» **FEATURED HARDWARE:** COMMODORE64
» **EXPECT TO PAY:** A FEW QUID

HISTORY

Ok, it's time to come clean. I didn't buy *Barbarian* because it featured cool graphics, a spookily eerie soundtrack or cracking gameplay. I simply picked it up because there was a nice pair of tits on the front cover…

Maria Whittaker's dirty pillows aside, Palace Software's impressive fighter has stood the test of time rather well and even today manages to put up quite a stiff fight. Sure, its sword and sorcery shenanigans have been eclipsed by franchises such as *Soul Calibur* and *Samurai Shodown*; but back in 1987, to play *Barbarian* was to witness a revelation. *Way of the Exploding Fist* and *International Karate* (*IK+* was yet to arrive) may have come first and been just as good to play, but they could never match the sheer brutality of *Barbarian*.

Vicious head-butts quickly sent your opponent reeling, while swift sword chops caused gouts of claret to gush from their various struck body parts. You may not have had any sort of force feedback back then, but by golly you felt every last strike. The evil moves were further enhanced by some great sound effects that added an extra layer of hurt to the proceedings; particularly when you heard the frightening swish of the dreaded Web of Death…

Perhaps though, it was *Barbarian's* sheer unpredictability that allowed it to stand apart from its peers. Your barbarian's health was represented by six red spheres; and every successful blow depleted half an orb, thereby effectively allowing you to absorb 12 hits before dying. Time an overhead chop correctly though and you could take your unfortunate opponent's head clean off his shoulders. Immediately ending the match. While you raised your sword in victory an ugly goblin loped towards the fallen body, kicked the severed head off-screen and removed the headless corpse.

Constantly knowing that every move you made could potentially be your last elevated *Barbarian* above its many peers and gave it an edge that many other games since have sorely lacked.

THE MAKING OF...
THE GREAT
GIANA SISTERS

Rainbow Arts modelled its classic 8 and 16-bit platformer on one of the most successful console games of all time, but then it got rumbled and its game was pulled from shelves quicker than you could say lawsuit. Darran Jones charts the creation of two platforming sisters. Just don't tell Nintendo…

IN THE KNOW

» **PUBLISHER:** RAINBOW ARTS

» **DEVELOPER:** TIME WARP

» **SYSTEMS:** C64, AMSTRAD CPC, AMIGA, ATARI ST, MSX, SPECTRUM (UNRELEAED)

» **RELEASED:** 1987

» **GENRE:** PLATFORM

» **EXPECT TO PAY:** £10+

During the late-Seventies and early-Eighties, clones of popular arcade games were rampant and they quickly began to spread to home computers like a cancerous growth. *Krazy Kong* was a surprisingly good ZX81 clone of Nintendo's *Donkey Kong* and was also the name of an unofficial bootleg of the very same arcade game, *Snapper*, *Munchman*, *Hangly-Man* and *Munchkin* were direct rip-offs of Namco's *Pac-Man*, while *Super Invaders*, *Cosmic Monsters*, *Space Attack* and *Space King* were spin-offs of Taito's *Space Invaders*.

In the early days of videogaming, many of these clones were left to leech off the arcade originals, growing increasingly fat off the efforts of the original creators. They even proved to be easy calling cards for fledgling developers – Geoff Crammond and Jon Ritman, for example – who were eager to break into the industry. Occasionally, however, these games came under fire, with their creators having to face copyright violation lawsuits and having to pay the consequences. Sometimes just being threatened was enough, as Manfred Trenz discovered when *The Great Giana Sisters*, a game he'd been working on with Armin Gessert, faced the wrath of Nintendo due to it being a little too similar to one of the Japanese giant's most popular games.

Super Mario Bros was one of Nintendo's biggest titles and was helping the Japanese publisher to grab a lucrative slice of the Western gaming market. With its slick scrolling, myriad of secrets and superb level design it proved to be in a totally different league to many computer platformers of the time and gamers were going absolutely nuts for it.

Eager to grab a slice of the *Super Mario Bros* pie, the then CEO of Rainbow Arts, Marc Ulrich, saw Shigeru Miyamoto's creation and immediately hatched a plan. "When he saw *Super Mario Bros*, he became very excited about it," recalls Trenz. "Since there was no game like it available on home computers at the time, he saw a chance

» While it's possible to run along the top of the screen here, don't expect it to lead to a secret warp area.

» That circle on the floor is a power-up. Grab it to grow big and dangerous.

for a successful game to be made using very similar game mechanics."

A team was quickly assembled, consisting of Trenz, who'd create the game's distinctive visuals; Armin Gessert was hauled in for programming duties (he ended up coding everything with

always more interested in games like *Defender*, to be honest."

Despite Trenz's general apathy for the game, Ulrich was determined that he should be on board the project and, with a team in place, Ulrich's next step was to secure an actual Nintendo NES

"TRENZ HAD TO CREATE A TITLE THAT WAS RECOGNISABLE AS SUPER MARIO BROS, BUT NOT ENOUGH SO THAT IT WOULD CAUSE TROUBLE FOR RAINBOW ARTS"

the exception of the high-score routine, which was handled by Trenz), while legendary C64 musician Chris Hülsbeck handled the excellent theme tune.

Interestingly, despite the sterling job Trenz did with capturing *Super Mario Bros*' distinctive look he admits to never being a big fan of the actual game.

"I saw the PlayChoice arcade version before I saw the actual NES game, but to be honest, I was never really interested enough to play it. I never even bothered with *Donkey Kong*, which was the first game to actually feature Mario. I was

» Despite only being available for a short while, *Giana Sisters* became a firm favourite with C64 owners. Ironically, the Nintendo DS would eventually get an official port in 2009.

and a copy of the popular platformer. Nowadays it's common practice for coders to have direct access to original arcade code when they're working on conversions, but back in the early days it was an entirely different matter. Programmers would usually be supplied with nothing more than an actual arcade machine and a lot of ten pences, and intensive playing became the only way of accessing a game's secrets. Unsurprisingly, when Trenz and Gessert finally received their console the approach they had to take was no different. There was no backwards engineering involved and certainly no help from Nintendo, just a hell of a lot of playing and note taking.

"The NES was installed with *Super Mario Bros* and we had to play it over and over and over again to understand how the game worked and was put together," continues Trenz. "Eventually, I ended up seeing everything the game had to offer. Even now, providing I have lots of time and very good nerves, it's possible for me to beat *Super Mario Bros* without cheating."

Charged with creating both the game's look and its level design, Trenz soon realised that he was in a very delicate position, as he had to create a

title that was immediately recognisable as *Super Mario Bros*, but not enough so that it would cause potential trouble for Rainbow Arts. As a result, the creation of many aspects, such as the layout of stages and the main character, took Trenz and Gessert a fair amount of time to perfect, meaning their game wasn't fully completed until a good six to seven months of hard graft had been put in.

"I did have complete freedom of choice when it came to designing the levels but the 'management' had a constant eye on the graphical style. It had to be very similar to *Super Mario Bros*," continues Trenz. "Yes, the graphical style was copied, but I did go out of my way to ensure that all levels were originally designed. I also found creating the main character [Giana] to be quite a hard task. It took me a very long time to find out the best look for her. I had lots of different variations but there always seemed to be something missing. It just took a really long time. So long, in fact, that practically every two weeks the management would be asking:

» Don't worry, you're not seeing two Gianas. The jumping one is in the foreground. Clever eh?

THE MAKING OF...
THE GREAT GIANA SISTERS

OUT OF THIS WORLD

Rainbow Arts may have had its critically received game scuppered by Nintendo, but that didn't stop *The Great Giana Sisters* receiving a sequel. However, it was a rather low-key and many gamers didn't even realise that the two games were actually related. *Hard 'N Heavy* was released in 1989 for the Commodore 64, Atari ST and Amiga and was markedly different from Trenz and Gessert's original game. To avoid any more potential issues with Nintendo, *Hard 'N Heavy* featured a spaced-theme scenario that was a world away from the Day-Glo colours of *Great Giana Sisters*, and the two wild-haired girls now wore spacesuits which made them completely unrecognisable. Many elements from the previous game still remained though. Blocks could still be busted, but doing so was now achieved with bullets instead of noggins, while collecting 100 gems still awarded you with an extra life. The floaty controls that made *Giana* stand apart from *Super Mario Bros* were also evident, although they felt far more suited to *Hard 'N Heavy*'s otherworldly environments. Contrary to popular belief, Trenz had no involvement in the game.
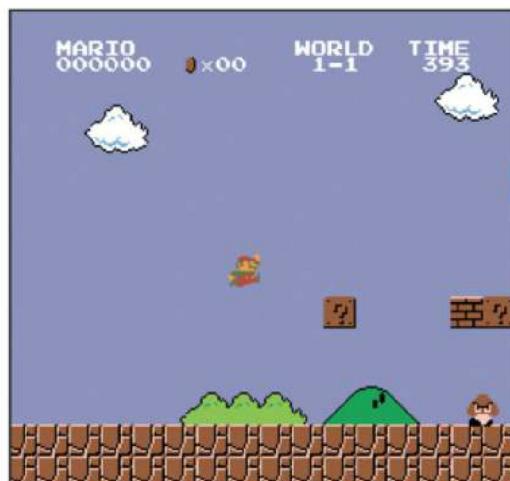
» One of these games is *Super Mario Bros*, the other is *The Great Giana Sisters*, can you tell which is which?

'What the hell are you doing? Show us something!'"

Hassle from upper management continued, and Trenz found even the most straightforward of tasks, like creating a flashy title screen, became increasingly difficult. "I ended up having to draw three different title pictures in the end," recalls Trenz as he looks back at the constant scrutiny that their game was under. "The first one was deemed to be far too cute, the second one was apparently far too gloomy and it was finally the third effort that ended up satisfying the management."

To try to distance Rainbow Arts' creation from Nintendo's, Trenz took out the familiar mushrooms and Koopas and other enemies in the game and replaced them with non-offensive-looking enemies, such as giant ants and other cute creations. Although some of them still looked remarkably similar to the original enemy sprites.

"I thought it would be incredibly cheeky to simply copy the enemies exactly as they were in *Super Mario Bros*, so I decided to invent as many new and funny ones as possible." Trenz's insistence on trying to make the game his own can also be seen whenever one of the sisters gobbles up the power-enhancing sweets that litter *Giana*'s many levels. Whenever Mario munches on a mushroom he grows in stature and his new power is easy to convey, with the sisters though, they simply grew new spikey haircuts. This wasn't down to machine limitations, however, but was another conscious decision on the part of Trenz. "It was simply a technical thing," he explains. "If I had gone and created another large sprite we would have been directly copying a feature exactly as it had appeared in *Super Mario Bros*."

Having to placate upper management's desire for an identical *Super Mario Bros* clone and wanting to create something that felt sufficiently different were the least of Trenz's problems, however, mainly because *Giana*'s distinct visuals had to be created from less than sufficient art tools. "Because there were no real tools available at the time, I simply had to make do with an existing tile creator that someone had created so I could build the graphic sets, and it proved to be a real pain to use. All the actual enemies ended up being simply placed in by hand."

As work began to wind up, focus turned over to what the game would actually be called. "Well, we wanted the name to sound similar to *Super Mario Bros*, but nevertheless be a little different," confirms Trenz. "We decided on the following: 'Super' became 'Great', 'Mario' became 'Giana', while 'Brothers' would obviously turn into 'Sisters'."

When *Great Giana Sisters* was eventually released it was to a fair amount of critical acclaim, particularly on the Commodore 64, which many still argue is better than the Amiga and Atari ST versions (no one ever mentions the CPC offering as it's utter tripe). Indeed the C64 version managed to notch up a particularly impressive 96% from *Zzap64!* that went on to call it, "A fabulous, compelling and constantly rewarding arcade adventure."

Rainbow Arts had achieved its goal and quickly pushed the game onto retail shelves. While Trenz was more than happy with the German box art, which mimicked his original loading screen, he wasn't at all impressed with the punk look that ended up on the UK release. "I really didn't like it. It just looks too strange to me and Giana looks like some kind of Miss Piggy."

Nintendo was also unhappy with *The Great Giana Sisters* and an injunction

» Chris Hülsbeck's music would often change depending on what level you were on. Every tune was excellent.

» Giana could smash blocks just like Mario, but unlike the plumber she didn't actually grow in size.

"TO TRY TO DISTANCE RAINBOW ARTS' CREATION FROM NINTENDO'S, TRENZ TOOK OUT THE FAMILIAR MUSHROOMS AND KOOPAS AND REPLACED THEM WITH NON-OFFENSIVE-LOOKING ENEMIES"

was taken out against Rainbow Arts' game. Rumours persist that the original injunction came about because a Nintendo representative had seen the game at a trade show and reported it, but Trenz isn't so sure. "I don't really recall who was actually responsible for the injunction, but placing the slogan 'The Brothers are history!' on the box certainly couldn't have helped."

Within a week of actually going on sale, *The Great Giana Sisters* was quickly pulled from UK shelves, and a similar pattern followed in the rest of Europe. Rather than fade into obscurity, Nintendo's injunction simply made the game even more desirable. "The reaction was really enthusiastic in Germany," remembers Trenz. "Even though everybody knew it was a 'copy' of *Super Mario Bros* it didn't seem to

matter. It wasn't until right after the ban though that it became a 'cult'."

Perhaps what's most interesting about *The Great Giana Sisters* though, is that while it's obviously a blatant clone of *Super Mario Bros*, the actual titles do play very differently to each other. Yes, you now collect 100 diamonds instead of coins in order to gain an extra life and the ability to blow bubbles is virtually identical to Mario's fireball-throwing skills, but gameplay is very different due to everything taking place against a far shorter time limit. Then, of course, there are the controls of the main character to consider. Giana is actually far looser to control than her moustachioed counterpart and she also lacks the physics of her portlier peer, hanging for a lot longer in the air whenever she makes a jump.

"I wanted to make the levels in *Great Giana Sisters* far simpler and shorter than they were in *Super Mario Bros*," explains Trenz. "We actually decided to make the stages smaller on purpose because it allowed us to have a multiple of different levels within a very short development time. There was plenty of testing throughout *Giana*'s development period, so I feel the time limits we imposed are actually quite fair."

After all the controversy, Trenz is still fond of *Great Giana Sisters*, the rights of which are now held by Gessert's Spellbound Entertainment, even if it didn't match its parent's quality. "I think it's a great game, but it never reached the detail and class of *Super Mario Bros*."

Many avid C64 fans will no doubt disagree with the above words, but it matters not. They committed *Giana* to their hearts 25 years ago. Over two decades on and the love is still there.

» Certain enemies are impossible to destroy, so be sure to avoid them.
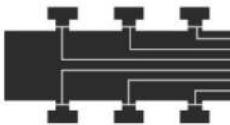
Neil Brennan
- » Age: 45
- » Occupation: Senior software engineer
- » URL: majitek.com
- » Favourite composition: *Samurai Warrior/ Usagi Yojimbo*
- » All-time favourite SID: "Anything by Rob Hubbard"
- » Favourite record: *The White Album* (The Beatles)

Ben Daglish
- » Age: 43
- » Occupation: Musician and programmer
- » URL: ben-daglish.net
- » Favourite composition: *Trap*
- » All-time favourite SID: *Masters Of Magic*
- » Favourite record: *Domino Theory* (Weather Report)

Jonathan Dunn
- » Age: 41
- » Occupation: Executive producer
- » Favourite composition: *Total Recall* (title)
- » All-time favourite SID: *Spellbound*
- » Favourite record: *Backfired* (Masters at Work)

Martin Galway
- » Age: 43
- » Occupation: Freelance audio director
- » Favourite composition: *Wizball* (title)
- » All-time favourite SID: *One Man And His Droid*
- » Favourite record: *The Flat Earth* (Thomas Dolby)

Fred Gray
- » Age: 55
- » Occupation: Care worker/admin worker
- » Favourite composition: *Madballs* (title)
- » All-time favourite SID: *Sanxion* (sub-tune 2)
- » Favourite record: *Wish You Were Here* (Pink Floyd)

Jon Hare
- » Age: 43
- » Occupation: Games designer
- » Favourite composition: *Oh No!*
- » All-time favourite SID: *Parallax*
- » Favourite record: *Everyone Is Everybody Else* (Barclay James Harvest)

The SID

The SID chip was revolutionary, and the musicians that made it sing laid the foundation for modern videogame music. Craig Grannell rounds up a dozen SID stars to find out their thoughts on the evolution of SID music

» The MOS Technology 6581/8580 SID (Sound Interface Device) was a behemoth in the days before sampled digital audio.

In the battle for 8-bit supremacy, the SID chip became the C64's main weapon. While other platforms offered more speed or better graphics than Commodore's bread bin, the SID brought the earliest examples of high-quality videogame music to home gaming. As the years went by, relatively simple ditties gave way to hugely complex compositions, created by programmers and musicians that became 8-bit celebrities: Hubbard, Galway, Whittaker, Huelsbeck and many others. A great soundtrack could sell a game, and, increasingly, the SID sold the platform, with gamers drawn to its chip-tune charms. Rather than tell the story of SID ourselves, this feature brings together 12 top talents from the C64 days, who reveal their memories about how they laid the groundwork for videogame soundtracks for years to come.

Why was the SID chip great?

Rob Hubbard: It was one of the first sound chips, and music evolved as the games were being pioneered. A whole culture developed around the C64 and the people involved with it.

Martin Galway: It was the most advanced sound synthesiser of its time, had unique features not found elsewhere, and was designed with an approach completely different to its rivals, which gave it a unique sound quality.

Chris Huelsbeck: The designers upped the ante, going beyond the norm, which was a cheesy digital style put into early arcade machines and computers. Yannes wanted to create a real synth, and he went on to build synths for Ensoniq. I recall he'd originally planned to put eight SIDs into a case with a keyboard, but it came out too noisy, but Commodore jumped on it. The design had a real filter, three oscillators, and sounded so much better than anything that had come before.

Rob Hubbard
» **Age:** 53
» **Occupation:** Musician
» **Favourite composition:** *Sanxion*
» **All-time favourite SID:** *Rambo*
» **Favourite record:** "Too many to list"

Chris Huelsbeck
» **Age:** 41
» **Occupation:** Videogame composer/ sound designer
» **URL:** huelsbeck.com
» **Favourite composition:** *Starball*
» **All-time favourite SID:** *Monty On The Run*
» **Favourite record:** *Please* (Pet Shop Boys)

Graham 'The Mighty Bogg' Marsh
» **Age:** 43
» **Occupation:** Electronics test engineer (team leader)
» **Favourite composition:** Bits of different tunes
» **All-time favourite SID:** *Aztec Challenge*
» **Favourite record:** *Dirty Boy* (Cardiacs)

Reyn Ouwehand
» **Age:** 36
» **Occupation:** Record producer
» **URL:** reyn.net
» **Favourite composition:** *Deadlock*
» **All-time favourite SID:** *Nightdawn* (sub-tune 2)
» **Favourite record:** *OK Computer* (Radiohead)

Martin Walker
» **Age:** "Stopped counting"
» **Occupation:** Composer, sound designer, technical writer
» **URL:** yewtreemagic.co.uk
» **Favourite composition:** *Armalyte* (title)
» **All-time favourite SID:** *Delta* (in-game)
» **Favourite record:** *Close To The Edge* (Yes)

Dave 'DialogueGuru' Whittaker
» **Age:** Old
» **Occupation:** Head of audio, Traveller's Tales
» **URL:** ttgames.com
» **Favourite composition:** *Glider Rider*
» **All-time favourite SID:** *Master Of Magic*
» **Favourite record:** *Equinoxe* (Jean Michel Jarre)

Ben Daglish: It was the first sound chip you could do groovy things with. Before that, you got a square wave with a bit of an envelope, but with SID you've got all sorts of lovely sounds. It was my first proper electronic instrument and was groundbreaking.

Jon Hare: The C64 was the first games machine that could make anything that sounded even remotely like music. It had a unique sound of its own, which made it seem very futuristic at the time. It's the biggest leap in videogame sound I can remember.

Martin Walker: It could be frustrating working within the SID's limitations, but that's what taught you to make the most of what you had – good advice generally in life! For me, the most special aspect of the SID was its ring modulation and sync features, which allowed me to create metallic, 'speech-like' sound effects, such as the 'Meanwhile!' so many gamers commented on in *Hunter's Moon*.

Graham Marsh: I liked having three voices built in. Previously, I'd used the Spectrum and had to use an add-on box to do proper chords. The SID improved games no end – just play *Castle Of Terror* to feel the atmosphere good sound and music can create. *Aztec Challenge* used music progressively – the further you

got, the more the music developed, which is a great device and a good incentive to keep playing!

Neil Brennan: It was certainly a relative joy to compose for the SID 'beepatron' after the horrible deficiencies of the Z80's 'clickatron'. White noise, filters, ring mod… all lovely. I would have killed for one more channel, though.

Fred Gray: At first, I was more intrigued with the C64's sprites, and so my original music driver didn't fully exploit the SID's capabilities. It wasn't until I heard amazing things others were doing that I decided to write a more comprehensive driver. I always thought gameplay was the most important part of a game, but the SID intensified this with music. A good example is in the *Mutants* maze – it's like having a clock ticking in your brain. I think all SID programmers aimed to play psychological games with their listeners, especially Martin Galway with his moody pitch bends and thumping beats.

How did you get into making music for the Commodore 64?

MG: I was working on the BBC Micro, which was used in schools. I didn't think much of the C64 – it

was, by comparison, bereft of support for easy programming. But Ocean's development manager David Collier shoved a C64 in my face and said, 'Program for this instead!' I guess I was obliged at that point!

RH: I had a strong background in analogue synths and started playing music when I was a kid. I started

> **"We laid the groundwork for videogame sound. That it's still honoured is a testament to what we did"** *Chris Huelsbeck*

The SIDCrowd
PLAYBACK

HVSC AND SOASC

» For when SIDPlay isn't authentic enough: SOASC.

For SID playback, SIDPlay is suitable for most, but emulation isn't entirely accurate. Binary Zone (**binaryzone.org**) offers CDs of SID recordings, but Stein Eikesdal's Stone Oakvalley's Authentic SID Collection (**www.6581-8580.com**) aims to offer the High Voltage SID Collection (**hvsc.c64.org**) in MP3 format. "The project records SIDs on real C64s, with no attempts to improve the sound, bar subtle noise reduction," says Stein. "The result is a 150,000-plus MP3 archive of music."

Stein says his aim was to provide the "sound as it would have appeared if you connected a C64 to a modern audio system", and although he'd been happy with SIDPlay, he changed his mind in 2006: "I found a site that showed the severe differences between emulation and real hardware, and this made me search for more authentic recordings." On discovering that no one had converted the HVSC, he did it himself.

EPIC SOUNDTRACKS

» [C64] *Miami Vice*: epic soundtrack; awful game.

Many SIDs were short loops and ditties due to memory limitations, but by utilising cunning looping techniques or applying lengthy soundtracks to relatively simple C64 games, SID musicians occasionally unleashed an epic. Hubbard's fantastic Pink Floyd-inspired 12-minute in-game *Delta* soundtrack remains a stunning piece, regardless of its chip-tune nature, and it isn't alone. Galway's ambient *Miami Vice* and intense *Parallax*, Matt Gray's filmic *Driller*, and Wally Beben's 26-minute piece for *Tetris* stand out from the crowd. And then there's the *Last Ninja* series – while its tunes are only a few minutes long, they helped in making the games seem like more than they were.

LIFTED BY MUSIC

» [C64] *Comic Bakery*: great if you ignore everything bar the music.

As Ben Daglish notes, C64 music was appreciated, and sometimes a composer's output could be so good that people would buy games primarily for their soundtracks. Hubbard classics graced iffy arcade conversion *Commando*, the mediocre *Knucklebusters*, budget failure *Rasputin* and rubbish shoot-'em-up *WAR*, lifting these turkeys from the mire. And even with divisive games like *Delta*, gamers tend to agree that Hubbard's music is sublime. Similarly, Galway's sterling efforts for Ocean ensured that *Miami Vice*, *Comic Bakery* and *Highlander* weren't complete disasters. Luckily, anyone today with a hankering to play these tunes can circumvent the games and just load the music in SIDPlay.

SAMPLE CITY
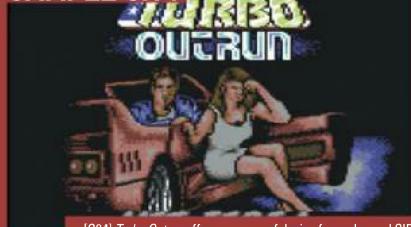
» [C64] *Turbo Outrun* offers a successful mix of samples and SID.

At the time, samples proved divisive, with some SID composers considering them a technical feat, but not one with any real musical merit. Today, the low fidelity of C64 samples sticks out like a sore thumb, but top composers nonetheless managed to use the technique to add to their SIDs in a meaningful manner. Witness Hubbard's rocking guitars in *Arcade Classics* and *Skate Or Die*, the crunchy percussion in Galway's *Arkanoid*, the loops behind the SID in Huelsbeck's *To Be On Top*, and Jeroen Tel's funky, sample-infused *Magical Sound Shower* update for *Turbo Outrun*. All great examples of SIDs where samples add character rather than detract from the synth sounds.

COVER VERSIONS
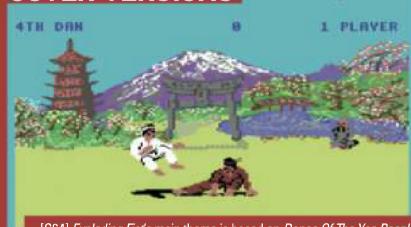
» [C64] *Exploding Fist*'s main theme is based on *Dance Of The Yao People*.

C64 game tunes often 'appropriated' tunes by chart-topping acts and synth legends like Jarre. Some covers, however, are more obscure. Daglish's popular *Cobra* theme, for example, is taken from the movie, and the main theme from Neil Brennan's *Exploding Fist* is lifted from *Dance Of The Yao People* from Phases of the Moon. Many famous Hubbard tracks are also borderline covers: *Delta* is Philip Glass's *Koyaanisqatsi* sped up, *International Karate* borrows from Ryuichi Sakamoto's *Merry Christmas, Mr Lawrence*, and *Zoids* and *Master Of Magic* are based on Synergy tracks. However, due to the nature of the SID and C64 composers, even these tracks take on a life of their own.

doing games and eventually specialised in audio, since most of it was so bad.

BD: I was at school with Tony Crowther, and he asked me for the music to the death march for a game. I wrote out the notes and he then asked for some Jarre. I started thinking I could write stuff myself – and I did.

Dave Whittaker: I started with making VIC-20 games and progressed to other major formats, eventually specialising in just audio.

FG: As I was discovering the C64, I was also trying to sell VIC-20 games to Tim Best. He liked the mood of my crude games, which he said was down to the music. One day, he told me to forget the VIC-20 and that we were off to Imagine – he wanted me on board to compose music for C64 games. I became an in-house music programmer, and it was a dream come true. All the musical experience I had at that time was with cheesy cabaret bands, but I loved music and programming. It was easier than playing live and I got to show off my creativity.

MW: I'd done some programming at university and had six C64 games published. But I'd been a musician for years before getting the programming bug, and so I created music and effects for my games. It seemed a natural progression to offer those services to others.

Jonathan Dunn: I was at college studying music and programming, and I combined the two things, sending demos to publishers. Before I knew it, I was getting commissioned and got an in-house job at Ocean. Initially, I intended to go to university a year later, but I never went.

Reyn Ouwehand: I'm not a programmer, and so it was SoundTracker that got me hooked, years after Hubbard was done making his classics. I was involved with demo groups – Blackmail, Scoop Designs – and through them I got hooked up with System 3 and Boys Without Brains, which led to commercial work.

CH: I always loved synth music and wanted my own synth, but my family couldn't afford one. I was also interested in videogames, read about the C64, and was taken in by the description of the sound chip. It took a year to get the machine, and my gran gave me the last 50 bucks! Soon after I started programming, a friend needed sound for his new game, *Planet Of War*, and so I worked on that.

What would you say your main influences were when creating music for Commodore's machine?

RH: I had many musical influences from all kinds of things, but there was a lot of electronic synth pop music in the Eighties that everyone copied.

NB: I was heavily interested by David Sylvian's band Japan at the time – and yes, it really shows!

MG: I spent my formative musical years listening to loads of electronic music, such as Jarre, Tangerine Dream and Thomas Dolby. This affected my compositions, although as I'd I grown up listening to rock and roll and enjoyed fiddly guitar solos, it was natural for me to try to emulate those too.

BD: My parents ran a folk club, and as a baby I was famously bounced on the knee of various folk luminaries. I played in orchestras and listened to lots of heavy metal in my teens, and then electronic stuff. It all sort of merged together. You do make distinctions between genres and styles, but it's all notes, really. And that's part of being a professional musician: you do what the job calls for. But I suppose 'orchestrally folky' was my natural state.
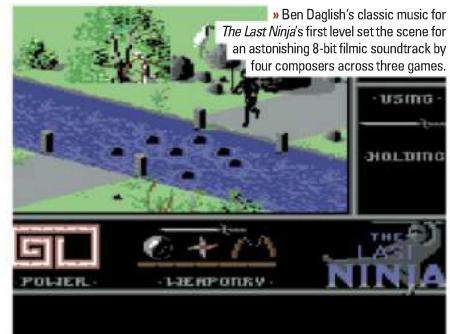
violin sounds close in tone to some of the synth lead voices used by C64 composers.

What process did you use when composing?

RH: I played most of the games and then used an assembler program and typed everything in using database statements. I used my own code – I was one of the first to use sampled instruments, and to try and get tunes that sounded like they had more than three voices.

DW: I used my Yamaha CX5 and Roland Jupiter 6, and then machine code and assemblers – but no MIDI – on the C64. I coded everything, although I did share and swap players with Rob Hubbard for a couple of different formats.

MG: I had an all assembly language, no fancy editors, hard-work approach to putting in tune data. This allowed me to custom-modify program code for each tune, but slowed development considerably. Complex tunes could take a month to complete.

JH: For a lot of the *Wizball* music, Martin got Chris to play lead guitar and me to play bass, and then transposed our music on to the C64.

MG: I also used a Seiko synthesiser that was lying around the office, but it wasn't closely connected, technologically – it was just a keyboard I could rehearse on. My code was my own, and I believe I invented the fast arpeggiation technique for mimicking chords, first released in *Kong Strikes Back* in 1984.

GM: I started off using DATA statements, playing notes on my synth, and converting them into numbers from the *C64 Programmer's Reference Guide*! Hundreds of lines of numbers, all hand-coded in BASIC! Later, I got a version of Hall & Oates' *Maniac* that played on interrupts. I was so amazed at music playing in the background while I typed BASIC routines that I found out which program created it and got a copy. That was Master Composer, which I used for everything after that.

MW: I just started entering data and creating the music in situ, so I could hear right away how the final result was going to sound. I've always been disappointed when composing on one platform and rearranging the music on another with its own set of limitations. With only one C64, I couldn't play games while working on the music, but I'd sometimes record it to cassette and play that alongside to make sure it fitted well. Also, with the tiny amount of RAM I was allocated, every byte counted, so I often used polyrhythms – two loops of slightly different lengths that played against each other, resulting in long sections of evolving music

"I had many musical influences from all kinds of things, but there was a lot of electronic synth pop music in the Eighties that everyone copied" *Rob Hubbard*

MW: My main influence was the SID chip itself, since this determined what I could write.

RO: I was raised in a very 'amusical' household, and my influence was mostly what other SID musicians did. I also think the SID's sound was very significant. It really has its own style – and the phrasing of melodies is so SID.

GM: My first *Bogg Album* was cover versions of chart songs, but *Bogg Album 2* was all original stuff. I was listening to Depeche Mode, John Foxx, Gary Numan and Human League, so was influenced by them. I suppose my music had a certain style. I liked to mess around with odd chord changes, or weird out completely with ring mods. Music has to be stimulating for me to listen to it and I'm always trying to work out what's going on. Once I work it out, I'm bored with it.

FG: I can't say I had many influences, although I did like to borrow from the classics – I owe Bizet big time for *Foxx Fights Back*! But most of my music was purely me: I'd get a tune in my head and work on it, sometimes for days, trying to get it how I heard it in my head. Sometimes I'd strip them down into small, repetitive tunes for high-score tables. But I must admit Mike Oldfield inspired the *Mutants* main tune!

Did you consider the SID a synth, or were you trying to ape real-world instruments in your compositions?

FG: I often imagined orchestral pieces or rock arrangements, but rarely tried to emulate individual instruments – the SID chip had a sound all of its own.

NB: The SID is pretty limited. I loved synths when they sounded like new instruments you hadn't heard of yet, but I was never satisfied by what we got on the C64. It didn't help that every C64 seemed to have its own unique filter values. There can't have been much quality control in the SID chip factory!

DW: I just treated it as a restricted synth – you couldn't really emulate any 'real' instruments.

MW: Drums were feasible by changing between noise and other waveforms 'on the fly', but in general the sounds were out and out synth-like in nature, so I went with the flow. Given that most games were futuristic shoot-'em-ups, synth music was the perfect choice anyway.

BD: I went for trying to get 'realish' instrument sounds, but there were definitely two camps: people like me, and those into pure SID. Often, those sounds became the basis of a piece, but I'm into notes. I don't care what they're played on. Generally, I'd come up with the tune and notes, then play with settings until everything sounded halfway decent. The one exception was *Deflektor*: I came up with a really nice cowbell sound and decided I had to write a piece around it. 'TOK TOK TOK-N-TOK!' You gotta do something with that, right?

JH: What was great about the SID was it being a crossover instrument between techie bleeps and regular electro-synth music. It's interesting in the SID'80s band I play in that Mark Knight's electric

» There are many great C64 remixes, but Reyn Ouwehand's live *Wizball* is mind-blowing. Watch via **www.youtube.com/user/ReynOuwehand** or download the mix at **remix.kwed.org.**

before they repeated, but using very few bytes.

NB: I'd meet with Fred Milgrom, who'd brief me regarding what he was after. I'd then hide in my bedroom with a four-track cassette recorder and lots of keyboards and guitars. A couple of days later, I'd play him my ideas and we'd choose which to port to the C64. I'd transpose my four polyphonic tracks into three mono ones in the music language I'd written and implemented for the C64.

FG: I'd find the backbone of a tune on the keyboard, but most arranging was done on the C64, tweaking note and effects data. I used my own drivers and got interesting original effects by using pitch envelopes, as in *Nodes Of Yesod*. When I rewrote my driver, I made great use of ring modulation, as shown in *Mutants*.

RO: I'd studied piano, so I mostly composed on the piano and then put the notes in the computer. But I'm a bad programmer, so I had to wait for others to create players and routines for me, which was a hassle. I think it was easier for Hubbard and Galway to make C64 music, because they were very good programmers. Sometimes, I got to play the games. I custom made music for *Last Ninja 3*, and when Cyberdyne made a game, we stayed in this house and worked together, trying to make the music in sync. But mostly you'd get a fax detailing what was needed: the number of levels, and maybe what kind of atmosphere there should be.

CH: When I got the C64, I played games for a year and programmed a little BASIC. But I really wanted to

become a games designer, and so I started assembly programming and made myself a player. When making tunes, I'd usually play around with a bass line, play with cool sounds, make a beat or something, and develop a melody over it. I think my music is more melody-driven than the background – the background's kind of interchangeable. Regarding the sound itself, an important thing with SID is pulse-width modulation, which makes one voice sound very fat, like when you detune a few normal synth voices and play them together. Almost everyone used that to enhance their sounds, and I had that figured out very early. When Galway did his arpeggios, I was already thinking about altering the frequency very fast to get a chord impression. When I heard his Ocean Loader, I coded that stuff in and it made a huge difference.

BD: I did it all in my head. I used to sit down with the text editor and type notes out. If things got very complicated, I'd maybe grab an instrument and see what something sounded like, but generally it was from the head to the page. Tony Crowther wrote a nice driver for me to type in things like 'C2, 10, D2, 13', and we adapted it to add structural stuff – loops, phrases – and define different sounds. I worked with that and other drivers at Gremlin, before I wrote my own, which then made it easier to port code to different platforms.

What are your thoughts regarding samples within SID tunes?

RH: Sampling used too much CPU to be practical, but it was a new effect. It was limited, but it did add something to get away from the 'generic' SID sound.

CH: Samples were a discovery I had in my early days at Rainbow Arts. I was researching new ways of enhancing SID sounds and discovered Digidrums. The main program was BASIC and there were assembly routines for the playback of the drums. I found how the drums were triggered and played with the program and realised you could activate SID voices behind the drums. That gave me the idea to combine a SID tune with sampled drums. With a friend, I hacked together a sampler on the C64 user port, sampled my own digi drums, had my own playback routine and combined that with my player. We had this cool stuff laying around for a few months, waiting for a game to put it in, and I imagined the reviewers would go bananas when they heard it. And then Galway's *Arkanoid* came out just before we released our stuff! His technique was based on the same principle as

"I imagined orchestral pieces or rock arrangements, but rarely tried to emulate instruments – the SID chip had a sound all of its own" *Fred Gray*

» Top SID composers matched great music with quality sound effects, such as the metallic noises and blasting sounds in Martin Walker's *Hunter's Moon*.

ours, only his drums were more synthesised.

RO: I was never into the digi thing, because I thought it sounded crap. If you want to do the real thing, do it real. If you want real drums, guitars and basses, record real instruments. For me, the fun thing about SID was that it sounded like a SID – it had its own distinct sound. On the Amiga, you could use samples, but they didn't sound like the real thing, so that's when I quit computer music, got a proper sampler and focused on real music production.

BD: Another problem with samples was the space they took up, not leaving much room for a game. It was technically impressive what people managed to do, but not necessarily musically impressive. It was more about sounds than notes, which was never my bag.

MG: When sample playback was discovered, the musicality went away to a degree, because sample fidelity was low, but it was an unstoppable technological development and couldn't be resisted.

What were the biggest constraints when working on SID music?

BD: Three voices! What could you do in three voices? I wanted an orchestra! [laughs] There was the fun aspect, the challenge – you'd use wobbly chords with fast arpeggios, and work around the limitations, but it was hard writing good harmonies. You'd drop one voice if you wanted sound effects. Deciding which was going to be the least important voice... They're all important! You don't need explosions – listen to the music!

GM: I quite like limitation. With current PC recording studios and unlimited sounds, I never get started. You had three voices and you just got on with it.

RO: Limitations give the best results. Nowadays, everything's possible and everything sounds the same. The SID's limitations gave it its own sound and also originality.

MW: The lack of memory was a problem: you were lucky to get a couple of kilobytes for your player code and music data. With few simultaneous channels, I ended up combining several instruments into single musical lines to add depth, like a sampled drum loop today. I'd follow a kick drum with a bass note, then a snare drum hit, another bass note, and so on, while another channel played the melody and a third was dedicated to multiplexed chords. But occasionally memory constraints could be so severe that I had to strip [various] features from my player, such as vibrato,

in order to claw back the bytes to squeeze in another tune!

MG: No stereo panning... The filter could only be clearly applied to one voice... I found the ADSR programming tricky too. I adapted compositions to meet the needs of the chip, which meant they don't translate perfectly on other setups without the same limitations. I sometimes imagined a larger tune was in there, but only three notes at any one time could get out.

JD: For me, the biggest constraint at Ocean was the time you had to do something. We were churning out games, and I'd work on platform conversions of tunes. But one of the fun aspects of making music for 8-bit games was pushing the hardware. If we wanted to do something different, we had to work out how to do it.

How did you handle arcade conversions?

RH: I always tried to write music to maximise the target hardware. And so if I had to convert some other music I tried to adapt it to suit the C64.

DW: I hated doing arcade conversions. You never got the musical scores – you just had to listen to every single note, again and again. Painful!

JD: Amazingly, we did occasionally get scores for some conversions, although we'd mostly transcribe from tape.

MW: It was a nightmare! Sometimes I got an inch-thick pile of music manuscript paper with scores from Japanese companies, but mostly you were lucky to get a poorly recorded cassette of each tune, made by placing the in-built microphone nearby while someone played the arcade game. Inevitably, they forgot they were recording the music, so you had to fathom out the notes while people chatted, groaned and chortled over the top!

FG: I thought converting arcade tunes was fun – they were a challenge. I once remember hearing a Joplin tune and discovered it was in F-major. I went to the library and found a Joplin anthology, and the first tune in F-major was the music I was after. I quickly converted the dots to numbers and had my music – easiest money I ever made! And there was always some of your own style in the conversions, which was all part of their charm.

When it comes to C64 music, what was your proudest moment?

RH: The full orchestral arrangement that I did of *International Karate* was a lifetime ambition. It's a pity it wasn't recorded.

DW: Hearing my music in a game, for the first time, at computer shows.

» *Delta*'s mix-e-load mini mixing desk for Rob Hubbard tunelets. So good, you'd stop loading the game just to mess about with it.

NUMBER CRUNCHING

Bob Yannes designed and completed his work on the initial version of the SID chip in **1981**

Advanced for its time, the SID chip provides **3** independent oscillators with **4** available waveforms each, **1** multi-mode filter, **3** ADSR volume controls and **3** ring modulators

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The SID went through **8** known revisions during its life, some of which dramatically changed its output. For example, samples are significantly quieter on the **8580** revision

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Zzap!64 gave Rob Hubbard's audio for Monty On The Run **99%**, calling it "Aurally am-m-m-mazing, technically perfect"

The SID had the US patent **4,677,890**, although this expired in 2004

At the time of writing, the High Voltage SID Collection contains nearly **37,000** SIDs

MW: The first time I heard my music incorporated into someone else's game, along with all the sound effects, and realising how much it enhanced the whole gaming experience.

NB: That moment when you first play a just-completed game, stand back, and feel you've contributed to the full experience. I was proud of songs I created for games that good friends had written, and that I'd contributed to something they were proud of too.

FG: The fact that fans still love what I created back then – the wonderful mixes, rearrangements and live performances 25 years on. It could have easily been forgotten – you guys are the best, listeners and musicians alike!

RO: For me, the whole journey was great – especially, as a teenager, being invited to London for a business trip to make music for cool games!

BD: The number of emails I get from people who say they became a musician because of me. It's amazing to feel you've influenced so many people and turned them on to music. It was a great period, before game music became background 'film' music you don't notice is there. In the Eighties, game music was important – it was something games were scored on. People really appreciated it.

Are you still involved in music and did composing SID music help?

CH: My basic compositional approach is similar. I've learned more and do more sophisticated compositions, but you still hear my music and think: 'That's a Huelsbeck composition!'

BD: Writing hundreds of tunes was good composition practice – the C64 taught me about writing music and developing tunes, and the workmanship/craftsmanship aspect. SID music was also good training in utilising minimal resources, helpful for when I started writing for video and theatre. I'm now good at taking a bunch of actors who have never played anything before and getting them to create their own music.

JH: I'm working a lot with music right now. Along with SID'80s, Ben Daglish and I have launched sensiblesoundware.com, featuring 30 albums of material from games people and collaborators.

MW: Many people haven't realised the Martin Walker who writes for *Sound On Sound* and *Audio Technology* magazines is the same one who created those C64 games and music! I'm also working on my fifth album of ambient music for Yew Tree Magic, and recently took up sound design again. With that, I've ironically turned full circle, again trying to squeeze the last drop of creativity out of a particular sound engine, just as I used to years ago with the SID.

JD: I'm still involved in music and the games industry. I've been releasing house music for ten years, and my work has appeared on labels like Hed Kandi and TV shows *Grey's Anatomy* and *CSI: New York*.

NB: I've had bands for years and still occasionally play. The SID years were the first time I'd been paid for being a composer and arranger, and made me a

CONTEMPORARY SID

Chris Abbott of C64audio.com provides insight into the SID's role in contemporary music, from the C64 remix scene through to SID samples in commercial chart-toppers

■ **What's your background regarding C64 audio?**
I started as a wannabe composer, took the initiative with the CD everyone was waiting for, and accidentally moved into publishing and C64 live events.

■ **What are your thoughts on the longevity of SID tunes?**
There's a niche of creative individuals deeply affected by C64 music. It combined with our lives to become a unique soundtrack. It's good this link to the past isn't lost and that artists use the C64 scene for artistic growth.

■ **Why did you create the original *Back In Time* CD?**
Everyone had wanted a CD like that for ages. There were technical and budgetary limitations, but getting Rob Hubbard to cover his own stuff was mind-blowing at the time. It remains the bestselling album I've done, and for many people I think it kind of sated them forever.

■ **What are your thoughts on the remixes available today?**
It's a glut. The days when someone could release something stunningly game-changing are over. People buy less C64 music than they used to, because you can gorge yourself online. But it's good it's there, and the scene's main players work together, so it's a stable environment.

■ **There's a dark side to C64 remixing – recording artists using SID samples without permission, such as Zombie Nation. What's your thinking on this?**
Actually, Zombie Nation was later granted permission to use *Lazy Jones* in *Kernkraft 400*, but he went way beyond that permission. In the way he acted, it's like renting out your house and finding the tenant later claims to own it, changes the locks, and threatens you

with legal action if you try to get another tenant. Then, when threatened, he offers to hire you a room back.

■ **What about Timbaland sampling a SID for Nelly Furtado's *Do It*?**
That fiasco – sampling Glenn Rune Gallefoss's SID cover of *Acidjazzed Evening* by Tempest – is more typical. It's not surprising to see how a record company and rich producer can behave, but it is disappointing. There's a trial in Miami in 2010 where it will all come out, and hopefully by then someone will have examined Timbaland's master project file. The chances of him having recreated *Acidjazzed Evening* independently with other equipment – making it so similar to the original that it sounds sampled – are zero. But lawyers have to claim ridiculous things and pretend to believe them, and judges often know or care even less about important technical issues. To sum up, when I hear about it, I think 'Not again', rather than 'Hey, a pile of money to be made suing people'. Court action is expensive, uncertain, lengthy and stressful. I'd rather people asked permission and negotiated fairly in advance.

■ **What are your thoughts for the future of SID in a modern context?**
If it breaks out of its niche, it will be by SIDs being cannibalised into modern hit songs. The possibilities are wide, though these days every man and his dog wants to do *Lazy Jones*. Lazy bastards, more like.
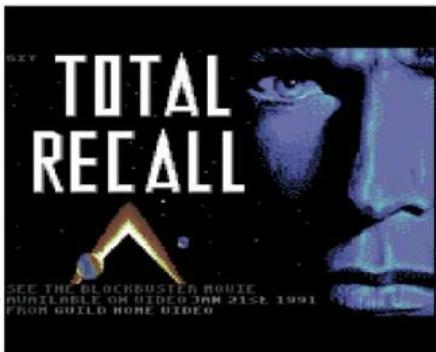
» Paul Norman's *Forbidden Forest* is one of the earliest videogames with a contextual soundtrack changing as events unfold.

"I sometimes imagined a larger tune was in there, but only three notes at any one time could get out" *Martin Galway*

better musician than I'd otherwise have been. I hated the limitations, but the C64 made me work harder, to distil the necessary essence of a song down to the smallest number of constituent parts.

What are your thoughts on the longevity and continuing popularity of music for the Commodore 64?

NB: I find it a bit hard to believe. My life's moved on so far that it's like it happened to another person. I got a call from a fan in Denmark a few years back, and it's one of the most surreal experiences of my life: 'Commodore 64 still rocks in Denmark!'
BD: It's great. When I wrote the tunes, I imagined orchestras and rock bands, and now remixes are being done like that. It's such a gas playing stuff I wrote 25 years ago with SID'80s and making it sound good. Sometimes, when I look back with my 25 years of musical sophistication [laughs], I sometimes think 'Oh my god', but they were good tunes with good melodies. People enjoy a good song they can sing. If you can pull that off on stage, it's great.
DW: It's nice people still take an interest, but it is a long time ago!
MW: I'm touched people not only remember, but still take the trouble to email me with their thanks for the enjoyment my music has given them over the years. I'm particularly chuffed with the remixes I've heard.

MG: I'm amazed that they're still getting referred to. Most gamers of the era are my age, and regard this thing as a way to remember their childhoods. But there are younger 'retro enthusiasts' who like the sound of early gaming chips! I'm not sure what it all means. Maybe there's an innocence that was lost when more powerful systems came out.
JH: It's nice that SIDs are remembered, but a little sad they're regurgitated. I wish people would focus on creating their own amazing new thing and just listen to old stuff for inspiration. But, overall, it is flattering people even care.
GM: I'm amazed that people are still interested. I abandoned the C64 around 1987 and don't entirely understand the C64 scene now – things have moved on. I'm not complaining, though. It's nice to be remembered.
JD: I love the fact that people are still interested enough to remix my old work. If you'd told me 20 years ago that people would be doing this, I wouldn't have believed you.
RO: In the end, it's nostalgia. We all grew up, but with the internet we can stay in our childhoods a little longer. For me, personally, I see SID remixes as an exercise. I respect the original SID and imagine how it would sound today if the composer were in the studio. It's nice when Galway or Daglish tells me my remix is pretty much what they had in mind when they composed their SID.
CH: Until recently I never thought about it. I focus on my career to get to the next step and live off my work. But we all laid the groundwork for videogame music and sound, and being part of a pioneer phase is very cool. That it's still honoured by the fans is a testament to what we did back then.

HOVER BOVVER
THE GRASS IS ALWAYS GREENER...

» **PUBLISHER:** LLAMASOFT
» **RELEASED:** 1984
» **GENRE:** ACTION
» **FEATURED HARDWARE:** COMMODORE 64
» **EXPECT TO PAY:** A FEW QUID

HISTORY

If there's one thing I like about the colder months, it's that I don't have to mow the lawn. You see, I get hay fever, and not just any old hay fever but the kind that makes me think someone sneaked into my bedroom late at night, filled my sinuses with liquid concrete, and then used my head for bongo practice until dawn. Clearly, partaking in an activity that flings considerable amounts of pollen directly into my nostrils isn't something I welcome.

Strangely, though, things I tend to dislike doing – driving and playing tennis, for example – are often the videogame subjects I'm most drawn to. Therefore, it should come as no surprise that I've spent a fair bit of time immersed in Jeff Minter's superlative mow-'em-up, the superbly named *Hover Bovver*. Ultimately, it's the larger-than-life elements within games that make them more interesting than the humdrum nature of reality. For example, careering around a corner at ridiculous speeds in *OutRun 2* is significantly more fun than pootling down the A331, wondering whether you should take the exit to Frimley, because there's usually a bit of a queue at Camberley. And so it is with Minter's videogame version of mowing. Instead of tediously pushing the mower back and forth across your lawn, while the sun tries its level best to melt your eyebrows, *Hover Bovver* gives you a turbo-charged mower, an angry neighbour to avoid (it's his mower that you've, er, 'borrowed'), a gardener to evade (should you accidentally mow over the flowers), and an 'attack dog' to keep loyal (or he attacks you rather than your foes).

It's not like these things don't exist in real life – while I'm unlikely to fling myself around winding country roads at 90 mph, *OutRun*-style, I could spice up my mowing experience by antagonising the dog, stealing my neighbour's mower and then careering headlong into every flowerbed in sight. It might not help my hay fever, but the ensuing chaos should at least take my mind off of it.

FLOWERS, YOU LUNATI
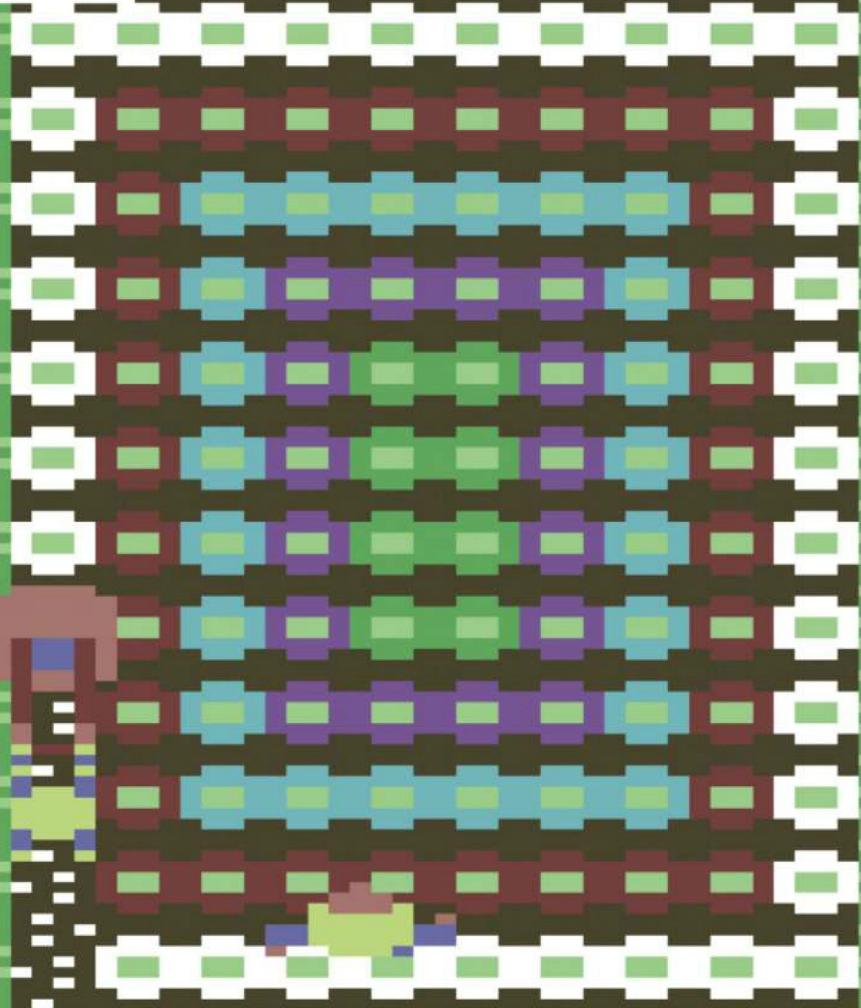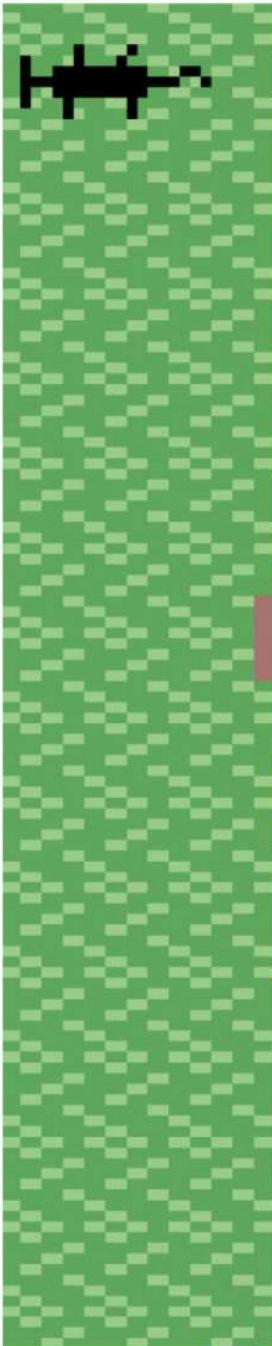
Ocean Software was one of the biggest names in the 8-bit videogame industry, and a massive presence on the Commodore 64. While it initially started off with poor licences of hit films and TV shows, it soon turned a corner, to became one of the most important developers in the industry. David Crookes explains how it all happened

OCEAN SOFT

t was one of the largest and most respected games publishers in the world – a company that produced movie tie-ins by the bucketload and converted dozens of top notch coin-op classics.

Nowadays, Ocean Software is nowhere to be seen, having been swallowed up by French firm Infogrames in the late 1990s.

But during the height of its dominance, the firm was frequently voted "software house of the year", its adverts plastered across almost every single computer magazine across two decades.

"And everyone hated us," says top Spectrum games programmer Jonathan Smith, who was at Ocean for three years from 1984 and was responsible for *Midnight Resistance* and the wrist-numbing *Daley Thompson's Super Test*.

"They were right to hate us. I buzzed off that!"

Ocean was founded by Liverpudlian David Ward, who had already achieved business success with a small chain of boutiques selling ethnic garb, which, in the early 1980s, was quite a trend.

Thinking he could get a good supply of gear from Morocco, fill up a van and bring it back to Britain to flog at a profit, he found himself languishing in a jail in Algerizas. With this in mind, he flew to Morocco for his next trip and did the deals on a more professional level and his clothing plan began to expand. But before long, he had spotted another trend, this time while on a trip to America. He saw potential in the fledgling computer games market and realised videogames would one day be a firm part of the entertainment business.

So, on his return to Britain in 1982, he set up Ocean Software as a publishing company. All he needed to do, he surmised, was find a group of talented programmers to produce a range of great games which he could market. By the end of the first year, Ward had five staff, a turnover of £500,000 and had sold 200,000 games. He became chairman, and his partner Jon Woods – who is now a major investor in Everton Football Club – was managing director. And the Ocean brand was established as the EA of its day, with around 60 programmers around Britain. Ward said in 1986: "As a publisher we wanted to cast our net as wide as possible so as not to exclude any creative forces."

After a couple of years, Ocean became a developer and snapped up young, emerging talent to work in-house. With an average age of 19, the programmers were loyal and keen. Ocean became based on Central Street in Manchester and there were certainly temptations outside the office, a stone's throw from the nightlife and shops of Deansgate. But the programmers hardly saw daylight – they were holed up in the building's basement and, to make matters worse, there was an alcohol ban, possibly because it was a former Quakers building. And a supposedly haunted one at that.

Artist Brian Flanaghan says: "The building was on a burial ground and there is still a plaque on the Central Street car park explaining the history - and the fact that there are still scores of remains buried there. "And where were we? In the basement! Some people mentioned feelings of 'not being alone' during all nighters, but I can't say I saw or felt anything supernatural…"

IN BRIEF

Ocean was the Electronic Arts of the Eighties, a big, brash, software house obsessed by film and arcade licenses. Set up by Liverpudlian entrepreneur David Ward in Manchester in 1982, it was first a publisher, then a developer. Ocean initially produced a string of terrible games but managed to sell them, generating enough cash to go on to create bigger and better games. Ambitious plans in 1996 to reorganise Ocean in light of the new consoles were scrapped when Infogrames bought the company. Three years later, the brand was no more.

WARE

But why Manchester? "I can't remember why Ocean set up offices in Manchester" says Gary Bracey, former development director at Ocean who started at the firm in 1985. "Both Jon and David were from Liverpool but I think they believed Manchester had a more credible commercial perception than Liverpool, due to the left wing image it portrayed at the time. Image was certainly important. David and Jon were marketing people first and foremost and built the company on their creativity and drive to succeed. But while it may have been outwardly perceived as a well-oiled, professional organisation, inside, Ocean was a ball of sheer energy, running on the power of the developers' talents and the managers' enthusiasm and beliefs."

The in-house talent at Ocean began to grow substantially, but Ocean was also proud of its external resources, which included Jon Ritman and Bernie Drummond, Denton Designs, Sensible Software and Digital Image Design which produced some of the finest flight sims the market had seen. But those early days of games development at Ocean were a real seat-of-the-pants affair, according to Bracey.

He said the games gestated at the whims of the programmers and artists' creative freedoms were encouraged, but indulgences had to be reined in due to that ever-present threat of slippage.

Yet many of those early games were hardly ground-breaking, even though they often carried big names from *Knight Rider* through *Street Hawk*, to Hasbro's *Transformers*.

That's because Ward believed the key to good game sales was to make it recognisable to consumers. This led to scores of film and arcade licences being secured – many of which were absolutely dire. "If you forget that *Knight Rider/Street Hawk* period then Ocean will always be remembered with fondness," laughs Mark Jones (a graphic designer who spent two years at Ocean) recalling the terrible state of those two games.

Jones, starting at Ocean in January 1987, worked on some of the developers more classic games from *Total Recall*, *Gryzor* and *Wizball* to *Arkanoid*, *Vindicator* and *Rambo III*. By this time, Ocean was establishing its brand and sales were buoyant. Ocean, with a £10 million turnover, was employing 62 staff and had sold three million games for a range of computer formats. It had also snapped up Imagine Software – one of the high-profile casualties of a downturn in sales in the mid-Eighties. Imagine, based in Liverpool, had a reputation for producing excellent games for the 8-bit machines with *Renegade* and *Yie Ar Kung Fu* just two of the classics.

But in that pursuit of excellence, financial control had gone by the wayside, so Imagine – and its international reputation – was cemented with the Ocean brand and became devoted to arcade games, in particular conversions from Konami coin-op titles such as the aforementioned *Yie Ar Kung Fu* and *Hypersports*.

This meant Ocean was getting bigger than ever, in both financial and influential terms. Not only was it able to tap into the vast talent at Imagine Software, its own programmers were starting to knock out some outstanding titles and they were beginning to really enjoy themselves. Jones certainly recalls being impressed by the firm when

SUPER BONUS   SCORE LIVES

» Bill Harbison had a problem drawing the Batmobile. So I approve - he bought the toy!

» Ocean worked on a large number of arcade conversions, many of which were of a very high quality. This is Hunchback and it's ace.

OCEAN'S FREELOAD

Nobody liked loading games from tape and all were grateful to Paul Hughes for creating Ocean's Freeload which quickened the process and provided protection against piracy. The first Ocean game to use Freeload was *Wizball* on the Commodore 64 in 1987. It replaced a previous tape loader, displaying a picture and, on the C64, playing music as the game loaded.

The loader came complete with an excellent tune, created by Martin Galway, Peter Clarke or Johnathan Dunn. "They were all prolific musicians," Hughes says. "You just asked for a new piece for the loader and they'd oblige."

When Ocean released its budget label, Hit Squad, the games were duplicated by Ablex in Birmingham. A cheap duplication machine was used which couldn't duplicate Freeload at high speed and Hughes had to slow the loader down, which led to Jon Dunn having to write new loading music. "His original tune was too short and ran out before the load finished," Hughes laughs.

he went for an interview in December 1986. "My interview, which I attended with my mum because I'd never been on a train on my own let alone gone to a different town, was relaxed," he says. "Gary Bracey was very friendly. The general feel of the place was that we all wanted to do our best and produce games that were as good as we could make them."

Ocean rewarded this work by crediting the programmers, artists and musicians on the games themselves, a rarity at the time, and this helped to motivate the staff.

Jones says: "These games were going out with our names on them as well as the Ocean or Imagine name. You wanted them to be good. If not just for the good of the company but for selfish reasons too. If it had 'Mark R. Jones' on it, I didn't want anything to look rubbish."

While the programmers toiled at their keyboards, Bracey and games producer Lorraine Broxton wandered around, taking an active interest in what was going on, what was new and what had been changed.

Other games programmers also took regular screen breaks to see what others were doing.

Jones says: "You couldn't just sit there at your computer screen from 9.30am till 5pm. Sometimes it would get to the stage where you'd been looking at a game for so long, you couldn't tell if it was any good or not. It meant everyone was aware of what everyone else was doing – if you'd produced something bad, there would be no beating about the bush."

Jones' first project was *Wizball*. He had never produced an animated sprite before so gained help from Simon Butler and Ronnie Fowles, who'd just finished the graphics for *Short Circuit* and were in the late stages of *Arkanoid*, both for the Spectrum. "They explained to me how to use the in-house Ocean animation program. This was an amended version of Melbourne Draw with animation capabilities," Jones says. But he is still not happy with the result, despite the game achieving both a Crash Smash and Sinclair User Classic.

He says: "The programmer of *Wizball* was also new and lots of stuff I'd created was left out. All I see when I look at it is what it could have been. The programmer left the project a month before it was due to be completed and it had to be handed to Paul Owens to finish."

Although Ocean developed many original titles, film licences were king. Videogaming was still in its infancy, although movie merchandising had been prevalent ever since *Star Wars* became a multi-million spin-off industry in 1977. But until Ocean appeared, making the game-of-the-film was still relatively unheard of. Some companies had tried it and been bitten - Atari spent $22 million on *ET: The Extra Terrestrial* only to end up with a terrible game and extremely low sales. Ocean was determined to do it right.

Bracey said: "At first, you could get the licences themselves relatively inexpensively as the movie companies hadn't yet realised the potential income that could be generated so we snapped them up. Eventually, we were building such a strong track record in terms of sales for licensed games, that I started to get flooded with scripts from movie companies actually wanting us to license their titles. That meant key titles like *Batman* weren't that hard to acquire."

One of Ocean's best movie licenses was *Robocop* – Bracey's favourite. "The box-office was pretty good for this low budget movie, and we produced a first-rate game based on it. We then went on to sub-licence and produce the game on all other formats including the new NES console system and an actual coin-op machine. The game sold millions of units in all of its entities and it was probably one of the most lucrative titles Ocean ever had – I seem to recall that the licence was not terribly expensive."

But there were some mistakes. Artist Brian Flanaghan says: "We went after some crazy stuff, like *Michael Jackson's Thriller* for the NES and there was mention of a U2 bid – neither came to fruition. "There was also *Radio Flyer*, a licence apparently based around a popular American child's 'pull kart' thing. After reading the script, it turned out the film was about child abuse! Great gaming material there. Obviously

the game was axed before anything was programmed."
But of all the games which stick in the mind, Bracey says his biggest error was *Hudson Hawk*. "That was easily the worst license I acquired," he says cringing at the memory. "The film turned out to be a dreadful, self-indulgent pile of crap and the game was no better. The problem was that the script was one of the best I had ever read. Unfortunately, what ended up on the screen was a far cry from the script I had been given. Thanks Mr Willis!"

Yet Ocean came in for widespread criticism for its film licences, with many branding them formulaic platformers. The company always contested that it was what people wanted and the games certainly continued to top the charts – Bracey notes confidentially that during his nine years at the company, Ocean generated more than 100 chart number ones.

Although Bracey has admitted the majority of games weren't anything special, he puts that down to the sheer quantity of titles Ocean produced, yet firmly believes there were many gems which hit the mark – not least *Batman*, which had many sub-games, *Robocop 3*, enhanced by its driving and shoot-'em-up sections, *Addams Family*, a massive platform game, and *Hook*, a true adventure game. And he points to the solid hits *F-29*, *Battle Command*, *Push Over*, *Sleep Walker* and *Wizkid*, as notable, original 16-bit games.

Nevertheless, film licences were the most important and the need to get them out at around the same time as the movie put a lot of pressure on Ocean's staff, who were often given very strict deadlines.

This would mean some heavy stints for the programmers and it was not unknown for some of them to work a shift far in excess of 24 hours to get the game finished and down to the duplicators.

Any laughter that would usually emanate from down below in the basement would quieten during these tense periods of time. Programmer Paul Hughes said: "The in-house crew had some absolutely incredible talent that didn't blink at the thought of working 72 hours straight and then driving to the duplicators with the master."

But despite their hard work, the programmers were always last to find out about the new movie tie-ups and so would engage in a little skulduggery. Jones says: "The first we would hear about the latest deals was when film companies would send scripts, photo stills and promotional material.

"It would always do us good to have a discrete nose round Gary Bracey's desk when he wasn't there – I can say that now, I'm sure he knows – everyone did it!"

Arcade licences were equally important to Ocean. Between 1983 and 1992, half of all the games Ocean released were based on coin-ops or films. And they threw up their own problems, mainly for the programming staff. Ocean's bosses would approach their programmers with the latest state-of-the-art, all-singing, all-dancing arcade machine – telling them their next project was to convert it to the humble Spectrum, C64 or Amstrad.

As Simon Butler recalls, "It was a challenge, but also a major pain."

Many of Butler's games were coin-op conversions or film licenses. He worked on titles spanning almost all of Ocean's lifespan from *The Never-Ending Story*, *Platoon*, and *Combat School*, to *Total Recall*, *Darkman*, and the *Addams Family* and all had to be faithful to the film or arcade, a difficult task.

It was a challenge also faced by graphic designer Bill Harbison, who joined Ocean in March 1988.

"I was really proud of my coin-op conversion of *Chase HQ*," he says when we asked him about his excellent conversion. "We had the arcade machine of *Chase HQ* so I could copy the graphics, although we didn't have the technology to strip the graphics from the arcade board so I played the game with one hand and had a pencil in the other to make sketches. *Batman* was easier, the only difficulty being I had little reference material to draw the Batmobile convincingly in 3D and couldn't get it right – even with a week to go to completion. Luckily some *Batman* toys were available. I bought myself a small Batmobile and used it to draw the finished sprites."

OCEAN AND AMSTRAD

When Amstrad decided to produce its ill-fated GX4000 console, it knew it needed some big names to back it up. And at the time – 1990 – Ocean was the top software house and the two companies soon came to a deal, along with Gremlin, Titus, Loricel, and Domark.

Amstrad gave the companies free reign to create any game they wanted, the only stipulation was that the packaging had to follow a pre-set format. Ocean then knocked out a series of games although, sadly, many were straight ports of existing CPC titles, only sold at vastly inflated prices.

But then, money was the important thing. Sir Alan Sugar said as much at the launch. "We don't just see this as Amstrad fighting Nintendo and Sega," he said, talking about the battle for console dominance. "We see this as Amstrad, together with companies such as Ocean and others who want to make some money and who do not want to be dictated to, fighting against these people."

Ocean's *Burnin Rubber* game was created specially for the GX4000 and was bundled with the machine.

Ocean also created games for another 8-bit inspired console, the Commodore 64GS. Unfortunately, that too ultimately failed.

» Combat School was an excellent port for the Commodore 64, with a fun multiplayer mode. [Insert] Graphic designer Mark Jones.

"OF ALL THE GAME WHICH STICK IN THE MIND, BRACEY SAYS HIS BIGGEST ERROR WAS HUDSON HAWK. 'THAT WAS EASILY THE WORST LICENCE I ACQUIRED, THE FILM WAS A PILE OF CRAP'"

» Ocean worked on a number of impossibly slick platformers. *The Addams Family* was one of its best.

MAGAZINES

"Everyone hated us," says Jonathan Smith - but was that the case? Certainly, the top computer magazines of the 1980s and early 1990s thrived off Ocean – if only because of its advertising.

Gary Bracey says: "Obviously, we spent a small fortune advertising in magazines and so they were wary of upsetting us too much. But in general, if one of our games sucked then they said so and were equally enthusiastic if the title warranted it."

Mark Jones agreed: "From my experience the magazines loved Ocean. They were always nice and friendly when they came round. Every now and again you'd get a mag come in and do the rounds, having a look at what was in development. They'd sit down and you'd talk them through what you were doing, what stage the game was at and what was to be done. Ocean were always given good write-ups when the magazines were previewing games. We'd do what we could for the magazines, providing screenshots and sometimes demos for them to take away."

There were some problems, however. Bracey says: "There were one or two journalists who just hated Ocean and we knew that they would always give us a poor score no matter what the game genuinely deserved."

While developing a game, staff would wear many hats including those of storyboard artist, producer, character designer, game designer, and copywriter. Butler says: "We got involved in many parts of the game and we cared for them. It rankled when we were pipped to the number one slot in the charts or when we missed out on a plum licence or franchise."

Much of that was because Ocean's greatest rival, US Gold, was breathing down their necks, even though Ward and Woods had a large stake in the company. From time to time, the two companies worked together, particularly on compilations, bringing together the best of both firms in treats such as *They Sold A Million* including Ocean's *Daley Thompson's Decathalon* and US Gold's *Beach Head*. But in every other respect, the pair were at war. When they became concerned there were budget houses flogging software for £1.99 as opposed to full price, they each set up rival low-price labels, US Gold forming Kixx and Ocean creating The Hit Squad, to sell old games first at £2.99, later at £3.99.

Bracey said: "There really was serious rivalry between Ocean and US Gold. We wanted to be the best and wouldn't rest on our laurels. But as time passed and we entered the console era then I think our main competitors became companies like Acclaim – though the competition and desire to be the best remained."

Competition extended inwards too. Butler says: "There was a sense of camaraderie at Ocean but also a healthy sense of competition between the various teams; to top the animation, to better the graphics or, in the coder's field, to have more sprites, bigger sprites - for your code to be better or faster."

"But it got harder with the 16-bits," adds Jones. "Instead of a few hours putting pixels in the right place to make a character die convincingly on the 8-bits, you spent double the time making sure the shading was correct or light was coming in from the same place."

As time went by, Ocean adapted to the changing market conditions. Games switched from being programmed by a few to being tackled by masses. And the threat of the big American and Japanese companies was brushed aside, with Bracey saying Ocean was excited and not scared by the challenge.

Ocean had spent a couple of years in the early Nineties worrying about how the industry was going to develop. But around 1994, it set up a new in-house development team, Tribe, and head of software development Ian Turnbull decided a professional, structured way of working was needed if Ocean was to make the massive jump from 8/16-bit to 32/64-bit.

Separate teams were created, each having a team leader, lead programmer and designer. Games were developed off-screen six months before any coding began and by 1996 there were 80 Tribe staff members. But in that same year, French firm Infogrames came sniffing and snapped up Ocean. It retained the Manchester office for development until Infogrames bought Gremlin in 1999 and programming was moved to Sheffield. Not long after, the Ocean brand was dropped. *GT 64 Championship Edition* for the Nintendo 64 was the last game by Ocean in 1998.

Flanagan said: "The initial feeling when Infogrames took over was good. We had a new shiny building, and this strange French megacorp was going to put lots of money into the company. But then certain games weren't released. I was working on *The Shadow* for the SNES and Mega Drive and had designed the sprites and a large proportion of the backgrounds. I also designed the game and was the lead artist but, sadly, the game was never released as the filmed bombed massively."

Many of the old Ocean guys – and gals – have not gone away completely, however. As well as most being involved in the industry in some way, they also chat on the forums at – www.theoceanexperience.co.uk.

Jones added: "It's sad in a way that the Ocean name has gone but good in another. I guess it means it will always remind misty eyed 30-something gamers of a time when games didn't have to rely on fancy FMVs and flashy graphics in order to impress."

1983

Royal Birkdale: Championship Golf (Spectrum)
Digger Dan (Spectrum)
Island Of Death (Oric)
Armageddon (Spectrum)
Rescue (Spectrum)
Pogo (Spectrum)
Android 2 (Spectrum, C64)
Rollerball (C64)

1984

Gift From the Gods (Spectrum)
Gilligan's Gold (Spectrum, C64, Amstrad)
Robotics (Spectrum)
Eskimo Eddie (Spectrum, C64)
Hunchback (Spectrum, C64, Amstrad)
Bruce Lee (Spectrum)
Mr. Wimpy (Spectrum, C64)
High Noon (Spectrum, C64)
Cavelon (Spectrum, C64)
Moon Alert (Spectrum)
Daley Thompson's Decathlon (Spectrum, C64, Amstrad)
Chinese Juggler, The (Spectrum, C64)
Kong (Spectrum, C64)
Transversion (Spectrum)
Bangers and Mash (C64)
Spellbound (C64)

1985

Hunchback 2: Quasimodo's Revenge (Spectrum, C64, Amstrad)
Kong 2: Kong Strikes Back (Spectrum, C64, Amstrad)
Match Day (Spectrum, C64, Amstrad)
Neverending Story, The (Spectrum, C64, Amstrad)
Daley Thompson's Supertest (Spectrum, C64, Amstrad)
Pud Pud in Weird World (Spectrum)
Rambo (Spectrum, C64, Amstrad)
Frankie Goes to Hollywood (Spectrum, C64, Amstrad)
Tornado Low Level (Spectrum, C64)
Roland's Rat Race (Spectrum, C64)
A Fi$tful of Buck$ (C64)
Cosmic Wartoad (Spectrum)
V (Spectrum, C64, Amstrad)

1986

Platoon (Spectrum, C64, Amstrad, Amiga, Atari ST)
Street Hawk (Spectrum, C64, Amstrad)
N.O.M.A.D. (Spectrum, C64, Amstrad)
Nightmare Rally (Spectrum)
Donkey Kong (Spectrum, C64, Amstrad)
Superbowl (Spectrum)
Great Escape, The (Spectrum, C64, Amstrad)
Gryzor (Spectrum, C64, Amstrad)
Nexus (Spectrum)
Miami Vice (Spectrum, C64, Amstrad)
Helikopter Jagd (C64)
Highlander (Spectrum, C64, Amstrad)
Transformers (Spectrum, C64)
Hunchback II (Spectrum, C64, Amstrad)
Hunchback – The Adventure (Spectrum, C64)
Cobra (Spectrum, C64, Amstrad)
Mailstrom (Spectrum)
Laser Sprite Generator (Spectrum)
It's A Knockout (Spectrum, C64, Amstrad)
Knight Rider (Spectrum, C64, Amstrad)
Batman (Spectrum, C64, Amstrad)
Army Moves (Spectrum)
Parallax (Spectrum, C64)

1987

Wizball (Spectrum, C64, Amstrad, Amiga, Atari ST)
Short Circuit (Spectrum, C64, Amstrad)
International Match Day (Spectrum, C64, Amstrad)
Mario Bros (Spectrum, C64, Amstrad)
Starace (C64)
Match Day 2 (Spectrum, C64, Amstrad)
Slap Fight (Spectrum)
Flashpoint (Spectrum)
Top Gun (Spectrum, C64, Amstrad)

Double Take (Spectrum, C64)
Mutants (Spectrum, C64)
Tank (Spectrum, C64, Amstrad)
Tai-Pan (Spectrum, C64, Amstrad)
Head Over Heels (Spectrum, C64, Amstrad, Amiga, Atari ST)
Road Race (Spectrum)
Super Bowl XX (Spectrum, C64)
Combat School (Spectrum, C64, Amstrad)
Eco (Amiga, Atari ST)

1988

Gutz (Spectrum, C64)
Typhoon (Spectrum, C64, Amstrad)
Cabal (Spectrum, C64, Amstrad, Amiga, Atari ST)
Emilio Butraguemo 1 (Spectrum, C64, Amstrad)
Operation Wolf (Spectrum, C64, Amstrad, Amstrad GX4000, Amiga, Atari ST)
Rambo 3 (Spectrum, C64, Amstrad, Amiga, Atari ST)
Phantom Club (Spectrum, Amstrad)
Firefly (Spectrum, C64)
W.E.C. Le Mans (Spectrum, C64, Amstrad)
Batman – The Caped Crusader (Spectrum, C64, Amstrad, Amiga, Atari ST)
Psycho Soldier (Spectrum)
Track & Field (Spectrum)
Daley Thompson's Olympic Challenge (Spectrum, C64, Amstrad)
Madballs (Spectrum, C64, Amstrad)
Moonshadow (C64)
Where Time Stood Still (Spectrum)

1989

Red Heat (Spectrum, C64, Amstrad, Amiga, Atari ST)
Chase HQ (Spectrum, C64, Amstrad, Amiga, Atari ST)
Operation Thunderbolt (Spectrum, C64, Amstrad, Amiga, Atari ST)
Robocop (Spectrum, C64, Amstrad, Amiga, Atari ST, GameBoy)
Run the Gauntlet (Spectrum, C64, Amstrad, Amiga, Atari ST)
Beach Volley (Spectrum, C64, Amstrad, Amiga, Atari ST)
Batman – The Movie (Spectrum, C64, Amstrad, Amiga, Atari ST, PC)
New Zealand Story, The (Spectrum, C64, Amstrad, Amiga, Atari ST)
Untouchables, The (Spectrum, C64, Amstrad, Amiga, Atari ST, NES, MSX)
Emilio Butraguemo 2 (Spectrum)
F29 - Retaliator (Amiga, Atari ST, PC)
Voyager (Amiga)

1990

Shadow Warriors (Spectrum, C64, Amstrad, Amiga, Atari ST)
Robocop 2 (Spectrum, C64, Amstrad GX4000, Amiga, Atari ST, GameBoy)
Rainbow Islands: Bubble Bobble 2 (Spectrum, C64, Amstrad, Amiga, Atari ST, GameBoy)
Midnight Resistance (Spectrum, C64, Amstrad, Amiga, Atari ST)
Puzznic (Spectrum, C64, Amstrad, Amiga, Atari ST)
Sly Spy: Secret Agent (Spectrum, C64, Amstrad, Amiga, Atari ST)
Chase HQ 2: Special Criminal Investigations (Spectrum, C64, Amstrad GX4000, Amiga, Atari ST)
Narc (Spectrum, C64, Amstrad, Amiga, Atari ST)
Plotting (Spectrum, C64, Amstrad, Amiga, Atari ST)
Pang (Spectrum, C64, Amstrad GX4000, Amiga, Atari ST)
Night Breed (Spectrum, C64, Amstrad, Amiga, Atari ST)
Adidas Championship Football (Spectrum, C64)
Adidas Championship Tie-Break (Spectrum)
Lost Patrol (Amiga, Atari ST, PC)
Ivanhoe (Amiga)
Shadow Of The Beast (C64, Amstrad, Amiga, Atari ST)
Burnin Rubber (GX4000)

1991

Toki (Spectrum, C64, Amiga, Atari ST)
Navy Seals (Spectrum, C64, Amstrad, Amiga, Atari ST, GameBoy)
Double Dragon (Spectrum, C64, Amstrad, Amiga, Atari ST)
Total Recall (Spectrum, C64, Amstrad, Amiga, Atari ST)
Battle Command (Spectrum, C64, Amiga, Atari ST)
Smash TV (Spectrum, C64, Amstrad, Amiga, Atari ST)
Simpsons: Bart Vs The Space Mutants (Spectrum, C64, Amstrad, Amiga, Atari ST)
Hudson Hawk (Spectrum, C64, Amstrad, Amiga, Atari ST)
Darkman (Spectrum, C64, Amstrad, Amiga, Atari ST, NES, Game Boy)
Terminator 2: Judgement Day (Spectrum, C64, Amstrad, Amiga, Atari ST)
WWF WrestleMania (Spectrum, C64, Amstrad, Amiga, Atari ST)
Addams Family, The (Spectrum, C64, Amstrad, Amiga, Atari ST, SNES, Game Boy)
Elf (Amiga, Atari ST, PC)

1992

WWF European Rampage Tour (C64, Amiga, Atari ST)
Cool World (C64, Amiga, Atari ST, NES, Game Boy)
Robocop 3 (Spectrum, C64, Amiga, Atari ST, NES)
Spacegun (Spectrum, C64, Amiga, Atari ST)
Epic (Amiga, Atari ST, PC)
Hook (C64, Amiga, Atari ST, SNES, NES, Mega Drive, Game Boy, Game Gear)
Lethal Weapon (Spectrum, C64, Amstrad, Amiga, Atari ST, SNES, NES, Game Boy)
Parasol Stars: Rainbow Islands II (Amiga, Atari ST, PC, Game Boy)
Pushover (Amiga, Atari ST, PC, SNES)
Sleepwalker (C64, Amiga, Atari ST)
Wizkid (Amiga, Atari ST)

1993

Dennis The Menace (Amiga, Amiga CD32, SNES, Game Boy)
Jurassic Park (Amiga, NES, Mega Drive, Sega Master System, Game Boy, Game Gear)
Ryder Cup Golf (Amiga)
Shut-It (PC)
Retee 2 (Amiga)

1994

Inferno (PC)
Eek The Cat (SNES)
Jungle Strike (Amiga, Amiga CD32)
Kid Chaos (Amiga)

1995

The Raiden Project
Mr Nutz (Amiga, Sega Mega Drive, SNES, Game Boy)

1996

Break Point (PlayStation)
Cheesy (PlayStation)
Tunnel B1 (PlayStation, Sega Saturn)
World Rally Fever (PC)
X2 (PlayStation)
Zero Divide (PlayStation)

1997

(I-War) (PC)
Jersey Device (PlayStation)
Total Drivin (PlayStation)
Multi-Racing Championship (N64)

1998

Fighters Destiny (N64)
Mission: Impossible (N64)
Wetrix (N64, PC)
Viper (PlayStation)
Zero Divide 2 (PlayStation)
GT 64 Championship Edition (N64)

IMPOSSIBLE MISSION
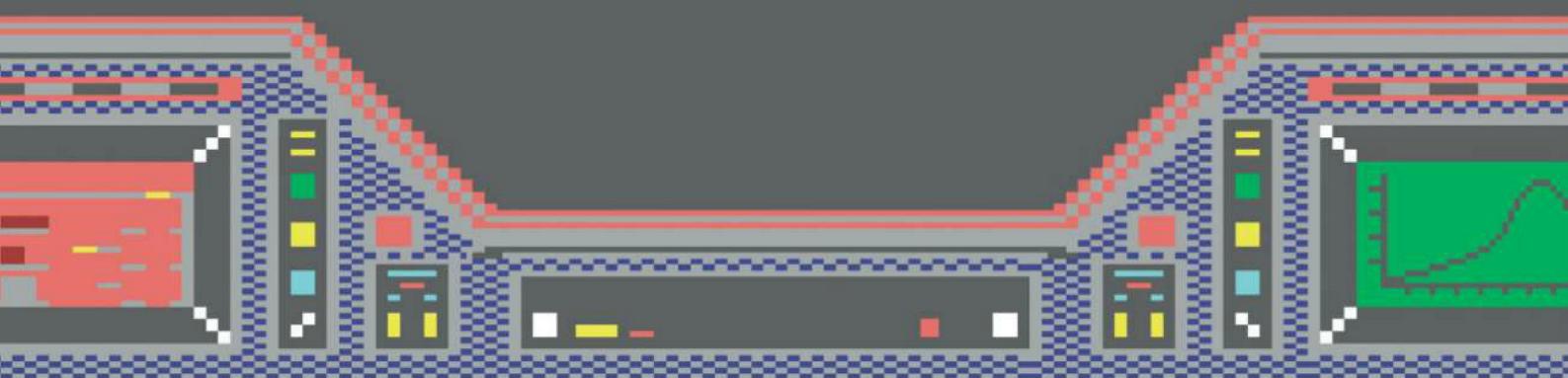
Your mission – should you choose to accept it – is to infiltrate the base of professional full-time megalomaniac Professor Elvin Atombender. Atombender is threatening to perform genocide through the hacking of national security computers in order to launch a nuclear missile strike. We have traced Atombender to his underground silo and have assigned you the impossible mission of putting a stop to his plan. This mission will be tough, this mission will be fraught with danger and this mission will self-destruct in six hours, so get your skates on. Oh, and make sure you take a short minute break after four hours – we really don't want Bridget from HR breathing down our backs. You know how she gets.

AGENT 4125

The hero of *Impossible Mission* goes by the name – or, rather, number – of Agent 4125. It doesn't roll off the tongue like 007, and kind of gives the impression that the administration he's employed by is either heavily overstaffed or rubbish at spy training.

PROF. ELVIN ATOMBENDER

With the name Atombender, you could argue Elvin was destined for a gainful career as an evil mastermind, or a superhero. Elvin is the balding spectacle-wearing villain of the piece. From his underground stronghold he's trying to hack global security systems to launch an attack on the world.

ROVER BALL

As well as droids, the player must also be wary of these *Prisoner*-inspired electrified black balls that guard some of Professor Atombender's rooms. Far more aggressive than the droids, most will annoyingly hone in on 4125 killing him on contact.

DROIDS

Atombender has a series of security droids patrolling his underground base to attack any unwanted visitors, such as you. These Dusty Bin-style droids have various attack types: some will chase the player, others behave erratically and some fire lasers.

COMPUTERS

If you've found an 'init lift' or 'snooze' code then you can upload it to one of these computer terminals to either reset the lifts or put all the machines inside that room into temporary sleep mode. This makes searching objects in well-guarded rooms far easier.
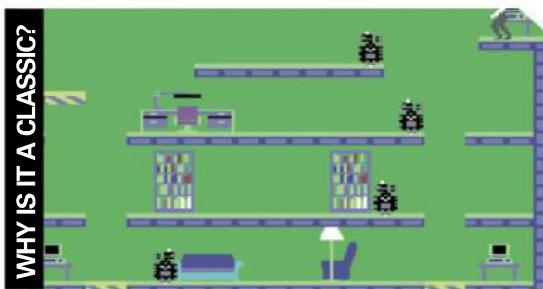
WHY IS IT A CLASSIC?

It's just impossibly good

A solid C64 classic, *Impossible Mission* wowed gamers and critics on its release thanks to a mix of great visuals, slick animation, and James Bond-style spy themes (although the game was said to actually have been more inspired by the movie *WarGames*). On top of this, the game also had that all-important one-more-go quality, brought about by a six-hour deadline looming over the player and the fact that the game's level layouts regenerated – it's the game that kept on giving. *Impossible Mission* is essentially the thinking person's platformer, and remains the ultimate espionage action game for the C64.
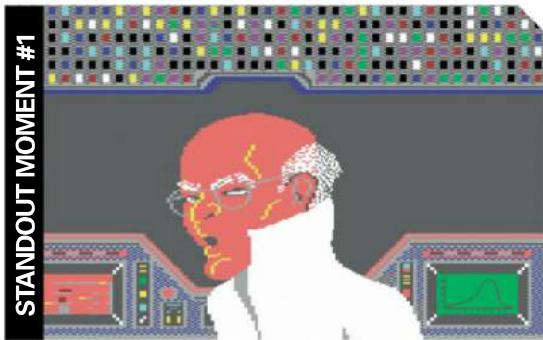
STANDOUT MOMENT #1

Mouthy megalomaniac

For many fans, the best moment of *Impossible Mission* was Elvin's unsettling audio welcome at the start of the game. "Another visitor. Stay a while… staaaay forever!" the wanton Professor cackled as the player began their mission. Arguably one of the most memorable bits of digitised speech to appear in a C64 game, it served as a chilling and telling greeting to the mission, and also filled the player with a sense that Atombender's foreboding underground lair has been a mausoleum for a number of spies in the past – quite possibly 4,124 of them, in fact.

NAME'S 4125, AGENT 4125…

The sociable secret agent

Unlike most secret agents, 4125 doesn't appear to have been given a licence to kill. In fact, he doesn't even have a licence to harass. The passive hero must infiltrate Atombender's base, and save the free world relying solely on his hacking skills, somersaults and his pocket computer. At the time of *Impossible Mission*'s release, the 4125 sprite stood out thanks to his dashing good looks and the smooth and realistic way he animated. Consequently, he fast became a popular element of *Impossible Mission* and was later reused in the game's direct sequel.

POSSIBLE MISSION?

Your mission, debriefed… briefly

Despite what its title insinuates, your mission was actually pretty straightforward. Agent 4125 has just six in-game hours – with each death docking ten minutes off the time limit – to find the nine parts of a password that will gain him entrance to Atombender's control room. 4125 must venture throughout the evil professor's labyrinthine underground hideout and search his furniture (Atombender is a little careless it would appear) for the 36 puzzle pieces and then decipher the nine-letter password. With the code cracked, entry to the control room is granted and the game is finished.

IMPOSSIBLE MISSION

Impossible by name…

Owing to the random generation characteristic of *Impossible Mission*, the droid types, rooms and password pieces would be scattered around Atombender's lair during the loading process, completing the game could either be relatively easy or nigh on impossible depending on what sort of mood luck was in that day. However, the Atari 7800 NTSC version did come with a nasty glitch that rendered its account of the mission sometimes impossible. This version was notorious in that it would generate the puzzle pieces beneath the computer terminals, which made them irretrievable.
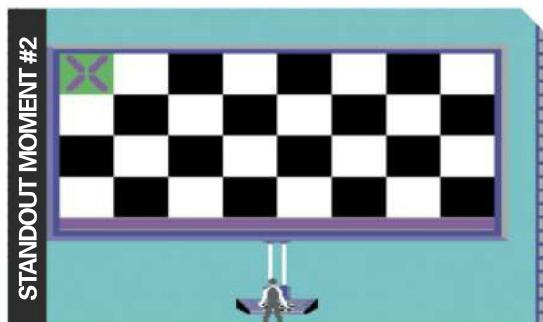
STANDOUT MOMENT #2

A brief musical interlude… twice

During its construction, Elvin ordered the builders to install two code rooms in his base, which seem to be there for no reason other than to earn agents further 'snooze or 'init' passwords. We won't grumble, though. Kind of resembling the set of *Catchphrase*, upon entering these rooms the player has to listen to a brief musical composition of flashing squares and, using a glove cursor, had to then replay the notes back in ascending order to win a code. You can replay this mini-game as many times as you like, although the tunes do get increasingly more difficult to follow.

What the press said… ages ago

Zzap!64
You're looking at one of the greatest programs ever written. The graphics, animation, sound, speech and gameplay combine perfectly to create a fabulous atmosphere.

What we think

It might be one of the C64's earliest titles, but some 26 years on *Impossible Mission* still manages to impress and feel fresh. As *Zzap!64* rightly said, it's a visual and audio treat wrapped around some great everlasting gameplay.

IN THE KNOW

» **PUBLISHER:** US GOLD / EPYX
» **DEVELOPER:** EPYX
» **RELEASED:** 1984
» **GENRE:** PLATFORM
» **EXPECT TO PAY:** A FEW QUID
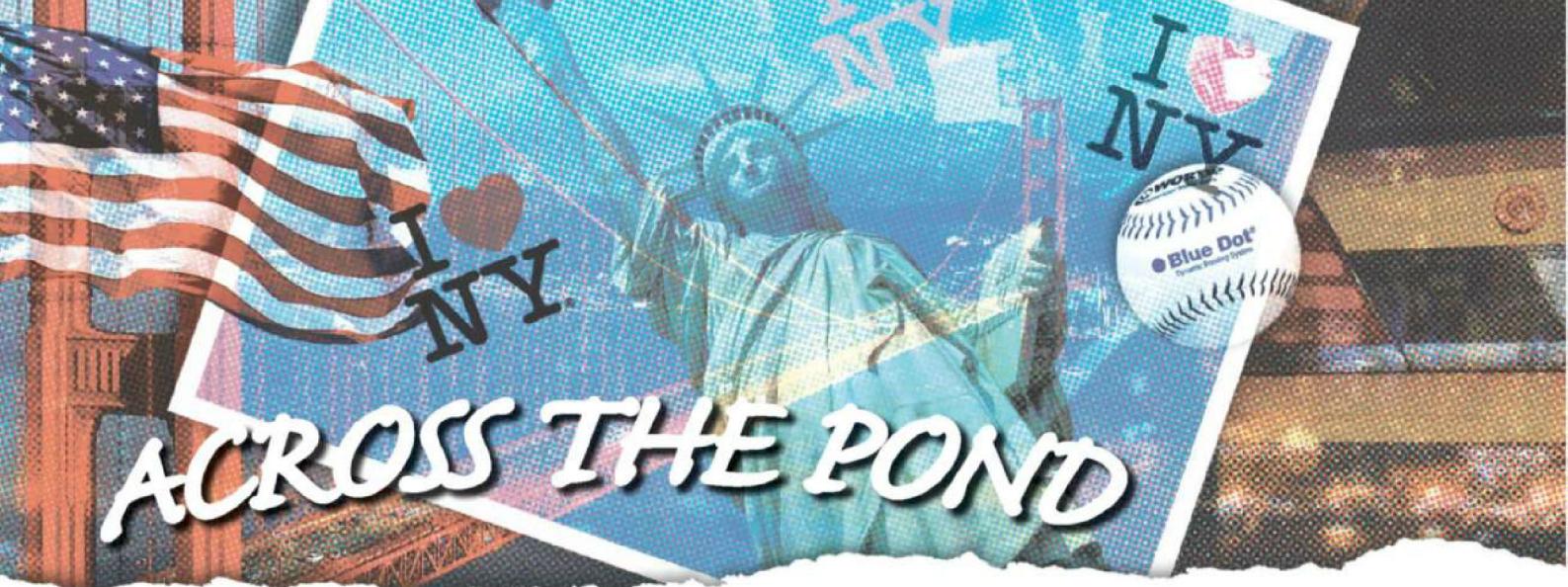
ACROSS THE POND

TODAY'S GAMERS ARE USED TO LOCALISATION, BUT THE C64'S WORLDWIDE POPULARITY IN THE EIGHTIES SAW DISTINCT ARCADE CONVERSIONS BEING CREATED ON BOTH SIDES OF THE ATLANTIC. THESE WEREN'T NTSC OR PAL FIXES, BUT ENTIRELY DIFFERENT GAMES. BUT WILL WE BE SINGING 'USA! USA!' OR A ROUSING RENDITION OF RULE BRITANNIA BEFORE THE DAY IS DONE? READ ON, DEAR READER, AND FIND OUT…

720 DEGREES

Atari's fondly-remembered skateboarding title would feel at home in the modern era of 'extreme sports' games. The game finds you performing tricks for money, which is then used to buy kit and to enter yourself into tournaments.

UK VERSION

US Gold's UK release of *720 Degrees* was left in Chris Butler's more than capable hands, and he rose to the occasion, squeezing this playable, responsive conversion into one single load. Sure, the graphics are rather blocky, but they manage to resemble the arcade game more than the cartoon-like US version; most importantly, the board's 'feel' and weight is spot-on, and although the arcade version's 'rotate and kick' control method has been dispensed with, the game's still very tough. A great start for the UK.

US VERSION

More advanced loading systems don't necessarily result in superior games: this disk-based effort has a painful multi-load, even requiring a separate load to access the map! Where the extra memory's used, we have no idea – outside of competitions, this version is almost silent, and although the sprites are more cheery than their UK counterparts, the game's scrolling is often so wobbly that it makes you want to vomit. Still, keeping down your lunch adds a much-needed challenge to the extremely easy gameplay…

AFTER BURNER

Sega's adrenaline-pumping arcade game has as much to do with flight simulation as *OutRun* has to do with realistic driving; instead, it's a frenetic shoot-'em-up – great in short bursts, and with mouth-watering 3-Dimensional graphics.

UK VERSION

Here's what the UK conversion of *After Burner* has in common with its arcade parent: you fly a plane, and you shoot other planes. With this being the original version's core gameplay element, 'so far, so good', right? Unfortunately, the 3D effect and other graphics (such as the wildly flickering main sprite) are so laughably bad that it's nigh-on impossible to tell what's going on at any given moment. This is just the type of game that gets sent to the 'bad place' when it dies and deservedly so, it really is utter garbage.
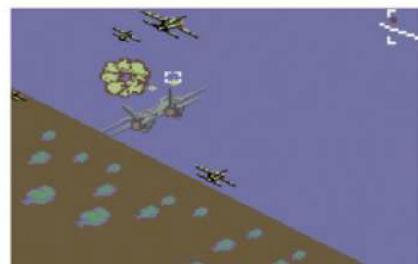
US VERSION

Feeling a little like 'After Burner Lite', the US version sacrifices terrain detail and enemy numbers in favour of speed. But this is not in vain, because the result is the closest the C64 comes to matching the arcade game – even Elite's graphically superior *First Strike* lacks this game's frantic, non-stop gameplay. As with the European version, the multi-load makes for a slightly fragmented game, but at least Blum and Stubbington's effort plays like its arcade parent, even including the refuelling and canyon levels.

IKARI WARRIORS

Akin to a thinking-man's *Commando*, this vertically scrolling shoot-'em-up requires a considered, stealthy approach. Neat touches include a simultaneous two-player mode, various weapons upgrades and the ability to drive tanks.

UK VERSION

The astonishing (for the time) 18-month gestation of the UK version of *Ikari Warriors* meant the game was initially met with derision, especially upon seeing the decidedly workmanlike graphics. However, it took little time playing the game to realise that this was a top-notch conversion, perhaps even surpassing the arcade original in terms of playability. With the original's features present and correct, including swarms of soldiers, a simultaneous two-player option and drivable tanks, this is the definitive 8-bit *Commando*-style shooter.

US VERSION

From a game that took 18 months to one that looks like it was cobbled together in 18 minutes – in S.E.U.C.K. Ignore the weedy tune, sparse spot effects and ineffectual push-scrolling, and you'll still wonder why half the original's features and maps are missing (along with the simultaneous two-player mode), why enemies and projectiles disappear at random, why the graphics are so terrible, why the mission takes so little time to complete, and, ultimately, why you loaded the game in the first place.

STREET FIGHTER

The first in the popular series of one-on-one fighting games. A combination of well-defined, unique characters and 'hidden' special moves elevated *Street Fighter* above the competition and provided the blueprint for many subsequent games in the genre.

UK VERSION

From first impressions of this game, you might think you'd loaded Lego *Street Fighter* by mistake, such is the chunkiness of the sprites. Gameplay is sorely lacking, too, suffering from 'unbeatable move syndrome' (rapid leg sweeps to win every round, fact fans!); most of the challenge comes from trying to stop the searing pain in your eyes as you try to keep tabs on the fighters, who suffer from 'the judders' and a distinct lack of animation frames.

US VERSION

Although it doesn't look much like its arcade parent, the US *Street Fighter* conversion at least avoids any chunk-o-vision problems, instead aping a console game. The neatly defined sprites and colourful backgrounds work well, although there's no scrolling and the 'bouncing' of the fighters as they move looks extremely comical. Controls are a little unresponsive, but the game is playable enough, and as it didn't blow up our computer, it pretty much beats the UK version by default.

AN INTERVIEW WITH STE RUDDY

Stephen 'Ste' Ruddy programmed the UK conversion of *Bionic Commando* and worked on both sides of the US/UK arcade conversions phenomenon. "Software Creations cultivated a good relationship with Taito of America following on from them publishing the Software Creations conversion of *Bubble Bobble* in the USA," he says, adding that this led to plenty of NES work for the company. As for multiple C64 versions of the same game, Ste reckons this was partly down to hardware issues: "The extra frame-time you got on PAL gave you a chance to do more, and the UK was cassette-focussed, so some US imports were butchered in the UK to get them on tape." Rather than wreck existing games, it often made sense to create something new.

The C64's reliance on cassettes in the UK played a part in Ste's work on *Bionic Commando*: "After playing the arcade machine, it was obvious the game had to be a multi-load. Because tape-loading was slow, we kept the number of loads to a minimum, putting two levels in each, apart from the stand-alone third level, which was large and had big animating robots in the background." The biggest challenge was implementing the bionic arm: "That was the defining component of the arcade machine. A big line of spites extending from the main character – without flickering – was not C64 friendly, but we nonetheless handled it using a software sprite system."

BIONIC COMMANDO

Capcom's tricky but addictive platform game would be long forgotten if it wasn't for the bionic-arm element, which enables your character to swing around the levels like Spider-Man (if Spider-Man used an extendable metal arm instead of webbing, that is…)

UK VERSION

It might not visually match the arcade game, but this *Bionic Commando* conversion sounds great (thanks to Tim Follin's musical talents) and is a joy to play. The 'feel' of the bionic arm is spot-on, and you can use inertia to catapult your character across divides. Sure, the game is hard going at times, but although you may come close to smashing your joystick to pieces upon failing yet again to complete level 4, you'll likely come back for just 'one more go'.

US VERSION

Unfortunately, the team behind this conversion must have had a thinking process that went something like: 1) Note down all the important elements of the arcade version; 2) Wreck unique feature – 'extendable metal arm' – by making it too short and making it awkward to use; 3) Wreck everything else. The graphics are poor, the tune is weak, and many of the arcade game's features are missing. On the plus side… well, it's marginally better than *Bionic Granny*.

CABAL

A sort of pseudo-3D mix of *Space Invaders* and *Operation Wolf*, *Cabal* finds you controlling a lone commando, fending off enemy attacks. Power-ups provide additional firepower for destroying enemies and scenery, and walls offer temporary protection.

UK VERSION

Although it lacks the coin-op's simultaneous two-player mode and the bizarre little dance-cum-victory-run that the commando does upon completing each level, everything else has been crammed into this conversion. It's not perfect – the sound effects are sparse, and the backgrounds are occasionally iffy – but the game is great fun and becomes frantic on later levels. And although the gunfire sounds like a mad bongo player, this is, frankly, a major improvement over the sound effect used for the US version.

US VERSION

At a glance, this looks like a pretty tasty recreation of the arcade game, with well-defined characters and colourful backgrounds. Playing the game is a different story, though. The irritating gunfire sound effect (strangely reminiscent of a 3:4 drum rhythm), annoying 'invisible bullet syndrome', and a lack of frenetic gameplay (due to a general shortage of on-screen foes) result in the realisation that the game is mostly gloss and rather nasty underneath, like a tasty chocolate bar filled with lard.

AN INTERVIEW WITH DARRIN STUBBINGTON

Darrin Stubbington is well known in the games industry, having worked for the likes of Midway and Acclaim, but his career began on the C64, converting Sega coin-ops.

"I came to the US to do PAL-NTSC conversions, but when we came to *After Burner*, the existing version was dire, so we redid it," says Darrin. "At the time, the capabilities of coin-ops were beyond what the C64 could handle, so we had to compromise, retaining the most important essence of the games and recreating this as best as possible with what the C64 had to offer." Darrin remembers the *After Burner* coin-op being particularly graphically intense, with many craft flying at you at once: "For the C64, we had to reduce the number of enemies and the amount of terrain detail."

Darrin reckons different coin-op conversions appeared on both sides of the Atlantic largely due to different perceptions of what made a great game, and from his perspective, there wasn't a belief that results were superior in the US or Europe: "Let's face it: a great game is a great game, but a stinker can be recognised by anybody! Generally, multiple versions also depended on a willingness to invest by publishers. Furthermore, games in the USA at the time were all disk-based, but cassette-based games were still required in the UK, and this made for some natural differences."

RAMPAGE

This appropriately named Bally Midway game finds you taking control of a trio of unfortunate people who'd been mutated into monsters. Your aim is to wreak havoc, demolish buildings, eat people, and avoid the army's onslaught.

UK VERSION

Surprisingly regarded as a classic, we've always thought *Rampage*'s immediacy was but a thin veil camouflaging a game of abject tedium. Sadly, this conversion makes the going even more wretched, offering finicky controls, sluggish gameplay and a smattering of annoying bugs (for example, eating people doesn't replenish your energy). The computer controls the other monsters when human players aren't present – a nice touch, until you realise the computer players are idiots, rarely smashing buildings, but all-too-fond of smashing you.

US VERSION

Poor ol' George the giant monkey looks like he's been repeatedly smashed in the face with an ugly stick, and the levels loop too rapidly, but this version of *Rampage* gets one thing right: it's actually quite a lot of fun, which is largely down to the game being much faster than the sluggish European version. Also, eating people actually replenishes your energy, as it should, thereby providing a reason for munching on the populace – other than out of spite for their hatred of hyperactive outsized monsters. A deserved winner.

JACKAL

Superficially similar to *Ikari Warriors*, *Jackal* finds you commanding a vehicle – an armed to the teeth jeep – rather than a lone soldier. In each level, you rescue POWs, transfer them to helicopter dust-off locations and battle an end-of-level boss.

UK VERSION

One of the more forgetful arcade games out there led to – and this will come as a shock – a thoroughly forgetful home conversion. Luckily, the game is slightly preferable to repeatedly smashing yourself in the face with a C64 – but only just. For every good element (dispensing with the arcade game's upwards-only main weapon for true multi-directional firepower), there's a really bad one (the maddening difficulty level; preserving the arcade game's belief that a single bullet can cause a jeep to explode). In short: avoid.

US VERSION

It would take a very special effort for the US version of *Jackal* to be as bad as the European one; thankfully, creator Mike Hutchinson avoids a similarly catastrophic conversion, largely by toning down the difficulty. The game's not without problems – this version retains the arcade counterpart's annoying vertically-oriented main weapon, and bullets have a nasty tendency to appear and disappear at random – but the game at least verges on 'fun' and won't make you hurl your C64 out of the window.

CONCLUSION

And so we reach the end of our battle of the titans, with both sides putting in a good showing. In terms of sheer quality, the UK arguably wins out with two classic entries (*Ikari Warriors* and *Bionic Commando*), while the US has to make do with a decent conversion of *After Burner* and the knowledge that most of its victories occurred due to the UK conversions being so utterly disastrous. Still, totting up the points using our entirely just and fair one-point-per-win system, we find that it's four-all, and so everyone's a winner (apart from anyone who paid for the US version of *Ikari Warriors* or the European conversion of *After Burner*, clearly).

There's a moral in there somewhere and *Retro Gamer* hopes you've all learned something from this encouraging and life-affirming conclusion. Now, however, we're off for another game of *Ikari Warriors* – the European version, naturally.
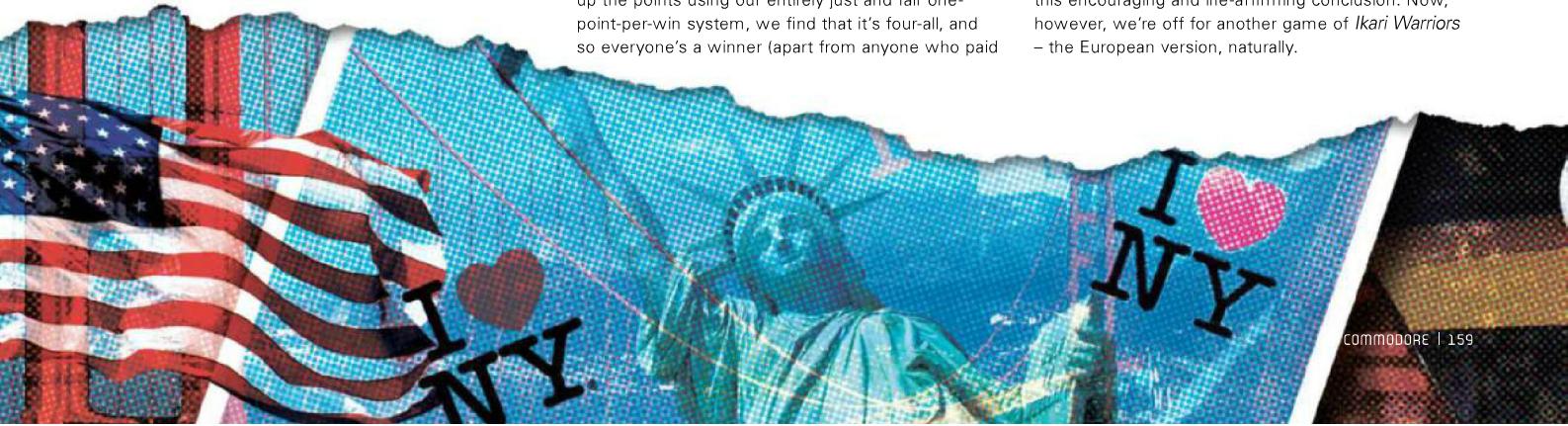
BRUCE LEE

FULL OF EASTERN PROMISE

» **PUBLISHER:** DATASOFT
» **RELEASED:** 1984
» **GENRE:** PLATFORM GAME/BEAT-'EM-UP
» **FEATURED HARDWARE:** COMMODORE 64
» **EXPECT TO PAY:** A FEW QUID

HISTORY

Anyone who's paid the slightest bit of attention to the games industry over the past couple of decades can't have helped but notice the increasing levels of violence bleeding into games. Blood 'n' gore is 'in', especially in the world of the beat-'em-up. Travelling back in time, before *Mortal Kombat*'s splatterfest, *Barbarian*'s then-shocking decapitations, and *Way Of The Exploding Fist*'s tactile punches and harrowing cries of pain, we arrive at a calmer era. But that's alright, because before *Fist*'s pseudo-realism, there was another martial artist in town: Bruce Lee.

Available for major 8-bit platforms, *Bruce Lee* was what passed for a fighting game at the time. At its heart, though, *Bruce Lee* was a frantic, highly playable platform game, with you guiding Lee ever deeper into the huge, booby-trapped fortress of an affluent and mysterious wizard, seeking the secret of immortality and untold wealth. Fast-paced running, jumping and climbing action was the order of the day, as Lee collected the lamps that opened secret passages to new areas. This tranquil set-up was punctuated by constant battles with bokken-wielding ninja and the mighty Green Yamo.

One of the game's masterstrokes was in providing a co-op two-player mode, with the second player taking the role of the Green Yamo. Clearly, the sensible route was for this player to take care of the respawning ninja while Lee went about collecting lamps. All too often, a 'misplaced' punch or kick, usually directly at Lee's head, would lead to an all-out slug-fest for the remainder of the game, with your 'friend' trying at every turn to end Lee's quest, preferably by kicking him into one of the many exploding 't'sung-lin' bushes that litter areas deep into the fortress.

So, while *Bruce Lee* lacks the finesse, variety of moves, gore and one-on-one ethic of later fighting games, it definitely has its moments, and the sheer playability of the game means it's worth a game or ten today, even if your Green Yamo-controlling chum still fails to co-operate.

THE MAKING OF...
WIZBALL

Widely regarded as one of the very finest Commodore 64 games of all time, Wizball effortlessly combines frenetic shoot-'em-up action with, erm, colouring-in. Jon Hare and Martin Galway talk to Craig Grannell about the genesis of Sensible Software's psychedelic blaster.

» As if later levels weren't hard enough, even the paint drops have it in for you, spraying bullets everywhere.

» Back in the lab, Wiz readies a colour to apply to the current level, while his trusty cat laps up a saucer of milk.

L abelling *Wizball* a horizontally scrolling shoot-'em-up is like dismissing *The Godfather* as a gangster flick. Sure, Sensible Software's classic C64 effort has waves of enemies, power-ups and plenty of frenetic blasting action, but it goes above and beyond its contemporaries in so many ways. Taking control of Wiz, a wizard who has a bizarre penchant for travelling around in a green ball, you're tasked with bringing the colour stolen by the evil Zark back to the previously vibrant Wizworld. Rather than collecting components required to complete levels in a conventional manner, you shoot paint-blob enemies (who eventually gain

a survival instinct, rather unhelpfully firing back on later levels), and use 'Catelite' (Wiz's pet cat, Nifta, encased in a flying green orb) to collect the paint drops. These are mixed in the Wizlab and applied to the current level. Three colours are required to complete each of the eight levels, and progress is punctuated by 'filth raids' (psychotic flying 'police' aliens that spew bullets) and frantic bonus rounds.

With so many ideas shoe-horned into the game, it's not surprising that *Wizball*'s development ethos was very different to that used for contemporary games. "*Wizball* was put together in a very organic way," explains Jon Hare. "It started as a *Nemesis*-inspired shooter – hence some of the enemy waves – and a bouncing control method that Chris [Yates] was playing with." From there, the concept grew, incorporating the game's most obvious differentiator: colouring the levels. "This seemed like a neat idea, and a good mechanic for level progression, along with giving us something novel for enemies to drop when destroyed," says Jon. However, the paint collecting initially worked very differently. "In the early stages, *Wizball*

» Even on lowly level two, plenty of Zark's minions are out to destroy your exterior design plans.

had underground caves – something later used in *Wizkid* – where the Wizball grew a body and went exploring for coloured drops to fill the landscape in," remembers Jon. Memory restrictions led to the now-familiar paint-blob aliens and the introduction of Catelite as a means of collecting the drops. "Catelite was a nice control idea – probably Chris's – and the cat character was based on Chris's cat Nifta, who was always around when we were making games," remembers Jon. "Once the cat was there, he became the obvious paint collector, with the paint drops becoming similar in concept to humans in *Defender* or babies in *Insects In Space*. As Chris and I had been playing co-op *Dropzone* a lot at the time, we decided to add a co-op two-player mode, enabling one player to control Catelite. It fitted together neatly, like most good design ideas do!"

Rather than paint-blob aliens being randomly distributed throughout the current level, Sensi decided to further break from tradition, providing players

» The Wizball bounces around, but control can be gained by collecting two pearls and doing some swift waggling.

» Frenetic blasting action in *Wizball*'s meteor-strewn bonus round, which offers the chance to bag an extra life.
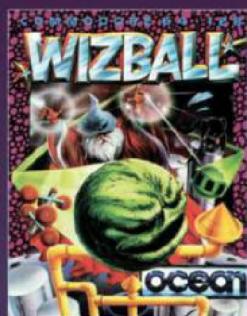
» As a one-player game, you have to balance Wiz's survival with the need to grab falling paint drops with Catelite.

BOUNCY (WIZ) BALLS

Although enjoyed by the majority of those who've experienced it, *Wizball* has left a sour taste in the mouths of some gamers – mostly those who can't get to grips with its control method. Initially, the Wizball bounces around the landscape and off of objects, but as the handy 'Wiztips' screen shows, two of the earliest power-ups available are 'thrust' (which provides 'in-flight' control) and 'anti-grav' (which provides full, standard eight-way control over the Wizball). On lower levels, eight of the aliens that always leave pearls behind when shot are immediately available, making it pretty easy to get anti-grav working, although if you've no permanent power-ups on later levels, a bouncing Wizball spells almost certain doom. "We thought the bouncing emphasised the uniqueness of the game," explains Jon. "Also, it was a good point to drop you back to, to penalise you for poor play!"

» Catelite makes a beeline for a grey paint drop, which will make him 'indescructacat'.

with three 'active' levels, accessible via a network of 'up' and 'down' entrances. "This came from a definite desire to break up the standard level flow, but it also aided the RGB colouring-in factor – we needed to ensure there was always an available level dominated by red blobs, one by green and another by blue," explains Jon. Therefore, completing the lowest active level rendered it inactive – empty of all enemies – but unlocked the next higher level, with tougher enemies and trickier-to-navigate landscapes.

These ideas provided layers of strategy. Along with trying to keep Wiz alive – one hit from a bullet or enemy causes the Wizball to explode in a shower of shards – you have to look out for and protect Catelite. Without the ever-faithful cat (who is rather more durable than Wiz, expiring after losing nine lives), paint-collection – and therefore, progress – isn't possible, but if Wiz's lives are all lost, the game is over. *Wizball* is a juggling act – a mix of blasting, quick

» Wiz mercilessly slaughters some helpless hoops, thinking how great it would be if none of Zark's minions could fight back.

dives with Catelite to grab falling paint drops, and regular retreats from hoards of hostile enemies. Later levels require regular trips between active levels, as the colours require elaborate mixing, and over-cautious players are hampered by the aforementioned filth-raids, should an enemy not be dispatched for a period of time. Additionally, players must be eagle-eyed when grabbing paint drops, because five non-standard colours randomly appear. Two are 'friendly': a white drop provides the player with a bonus Wizball and a grey drop increases the cat's number of lives. However, three unfriendly colours lurk: purple drops make the cat crazy, sending it zipping around the screen, until it expires from damage; a light-blue drop causes a major filth raid, with multiple 'police' ships; and a black drop makes the landscape invisible. "The filth-raid and mad cat are

classic Sensi touches from the old days when fun was allowed, without it having to be built into a milestone schedule!"

Usefully, respite of a sort is provided in *Wizball*'s bonus rounds, which offer a chance to grab an extra life (if you survive long enough), and the tranquil surroundings of the Wizcave (where you select a permanent power-up, and watch Wiz mix the current colour while Nifta gulps down a saucer of milk). But were these strategic elements in any way planned, or was it all a happy accident? "All our games were made in the same way: create some great game mechanics, good AI and a decent level structure, and the gameplay looks after itself," claims Jon. "By offering the player a flexible strategy in a structured progression format, it is naturally occurring that the player experiences both freedom and a sense of direction – thus, they can create

> ## "WIZBALL WAS PUT TOGETHER IN A VERY ORGANIC WAY, AND NOT REALLY PLANNED IN THE WAY MODERN GAMES ARE"
> JON HARE

» Enemies close in as Wiz aims to get enough paint to add the third colour to the final level.

» Wiz ponders for a moment his decision to use brown as the base layer for this glass-oriented level.

"FOR THE 'GAME OVER' TUNE, WE ALL SIMULTANEOUSLY AGREED THAT AN OUTRAGEOUS 'F*CK YOU!' GUITAR LICK WOULD SUFFICE; IT'S A POKE-IN-THE-EYE, BREAKING THE FICTIONAL MOOD, SINCE YOU'RE PULLED OUT OF YOUR GAME EXPERIENCE" MARTIN GALWAY

SON OF WIZ

Wizball gained a 16-bit-only sequel in the early Nineties – the utterly bonkers *Wizkid*. "The idea of the Wizball gaining a body and walking around was something I'd originally planned for the 8-bit original, but we didn't have enough memory," recalls Jon, who's also adamant that *Wizkid* is a true sequel, rather than a mere spin-off: "The characters are the same – as is the spirit of the game". One major change, however, is the game's inspiration, as Jon explains: "We decided to base the game on *Arkanoid* instead of *Nemesis* and *Defender*, and see what transpired… The crosswords and kittens and stuff just fell out of our heads like unwanted children and ended up in the game. Had we put out *Sex 'n' Drugs 'n' Rock 'n' Roll*, I believe that would have been a further sequel, with the same anarchic and humorous spirit found in *Wizball* and *Wizkid*."

their own gameplay and feel it was all some pre-designed strategy!"

Wizball isn't considered a classic just because of its gameplay – it's one of the prettiest games on the C64. But was Wiz always envisaged as a wizard in a grinning green ball? "The ball came first… the wizard was a storyline tagged on near the end," admits Jon. "At Sensi, we'd often create a world and justify it with a dubious storyline!" In hindsight, Jon considers the main character graphics purely functional in design, but remains fond of his work elsewhere: "As an artist, I'm proudest of the backgrounds. My favourite level is the final level, which was the first time I attempted to draw glass on a computer. Mount Rushmore was a 'running out of ideas' moment…"

And then there's sound effects and music, crafted by the talented Martin Galway. Jon notes that "although we gave Martin ideas of what was intended to be conveyed, we just let him get on with it," adding that "I have a feeling Martin played the games as well, which gave him a better feel for the effects!"

Martin remembers becoming involved with the project because Sensi's agreement with Ocean was that they weren't set up to provide music. "Ironic, since Jon and Chris were accomplished musicians capable of working on that aspect of the game," says Martin. "But since Ocean had me in-house and I'd already wowed them with *Parallax*, there was a natural fit."

Freed from the constraints of Ocean's movie and coin-op tie-ins, Martin felt free to experiment, and worked alongside Chris and Jon when some of *Wizball*'s music was composed. "For the simpler

tunes, I owe a great deal to the guitar-playing of Chris and Jon. For the 'game over' tune, we agreed that an outrageous 'f*ck you!' guitar lick would suffice. The game itself had a trippy feel to it, which we wanted to continue in the music, but for the game-over tune, we wanted a poke-in-the-eye, breaking the fictional mood, since you're pulled out of your game experience." Chris duly obliged, picking up his electric guitar and playing a perfect rendition of the tune. "When they came back, I'd recreated his tune inside the C64, making it more massive-sounding than the plain guitar version, and the lads loved it," says Martin.

The bass-line tunes were done in similar fashion, in collaboration with Jon, who provided loops and riffs, but the title-screen music was Martin's. Martin reckons that it's influenced by the Vangelis album *China*, although he's never owned a copy: "I'm not saying I ripped it off – just that I had flavours of that album in my mind as I composed *Wizball*'s title-screen tune. I guess the process was rather like trying to cook a meal you've eaten, but having to guess at the ingredients – it comes out different, but has some similarities."

SID fans will be aware of the shift in tone half-way through the track, which Martin says was down to completing the first part of the tune, doing the rest of the work on the project, and then returning to Ocean's Manchester office to quickly completing the title track before becoming embroiled in other games. "I contemplated the mysterious process of creating magic potions that

the wizard would go through, and that gave me the basis for the second part of the composition," explains Martin. "The first part evokes the wondrous, magical land that the game takes place in."

Looking back, Martin reckons the music holds up pretty well: "I should have perhaps paid more attention to the end of the title-screen tune, and tried to extend it while keeping the same style. But otherwise I think it's probably the audiovisual pinnacle of my C64 days; there's not much that comes near it."

Despite the unconventional nature of the game, critical acclaim arrived in droves, but this didn't surprise Jon, who considers *Wizball* "one of the most 'complete' games we ever produced". Commodore User awarded *Wizball* a Screen Star, and only the grumpiness of Gary Penn denied the game a Zzap!64 Gold Medal. "*Wizball*'s greatest accolade was a 'game of the decade' award from Zzap!, which made up for the lack of a Gold Medal, and also ranks as one of my greatest achievements in gaming," says Jon, who considers *Wizball* one of three 'classic' games he's worked on. "The other two are *Sensible Soccer* and *Cannon Fodder*. I've worked on other great games, but not in the same league!"

» What Mount Rushmore is doing on this alien world is anyone's guess, but Wiz will be splattered all over it if he doesn't deal with the incoming enemies.

» After Catelite grabs a light-blue paint drop, the fuzz arrive, dispensing their brand of justice on an unfortunate Wiz.

» 'Wot a Wizace!' exclaims the game, treating you to a flypast of each level once all three colours have been applied.

» Harrowing screams meet you on the game-complete screen, with the colour wrenched from the world again.

COMMODORE 64 GAMES
OF ALL TIME

You would need a seperate book in order to list every single fantastic game that was released for Commodore's classic 8-bit home computer. As that's not really possible, we've decided to do the next best thing, by highlighting 25 firm fan favourites. How many of the following popular games have you played?

Stunt Car Racer

■ **Year:** 1989

■ **Publisher:** MicroStyle

25 It's a testament to Geoff Crammond's skill as a coder that two of his three C64 games made your list. *Stunt Car Racer* managed to combine Geoff's love of physics with the thrills and spills of the arcade racers that were popular at the time.

Yes, it's not as good as the Amiga version, but in many ways *Stunt Car Racer* remains an astonishing achievement on the C64 thanks to its slick engine, carefully crafted track design and wonderfully tight controls.

Even today, *Stunt Car Racer* is fun to play, largely because of the aforementioned physics and intricate track design, which have really stood the test of time. You're required to learn every inch of the track in order to master it, but the sense of achievement you receive when you do is unmatched.

The Sentinel

■ **Year:** 1986

■ **Publisher:** Firebird

24 Although best known for his racing games, Geoff Crammond wasn't afraid to step out of his comfort zone in order to deliver genuinely engaging experiences.

The Sentinel is arguably one of his most surreal and imaginative games, offering a cerebral challenge that few other titles on the C64 can match. Indeed, from the moment you witness Bob Stevenson's iconic loading screen, you know you're about to play something special.

Using the absorbing skills of your Synthoid, you must reach the highest point of each of the 10,000 levels and absorb the titular Sentinel without it spotting you. Interestingly, the slow drawing process of the C64 version – compared to its 16-bit counterparts – actually added to the game, creating an unbearable tension that, in turn, made it utterly unique. It was simply masterful, and highly challenging.
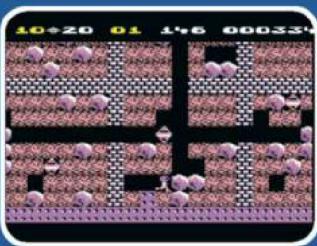
Boulder Dash

■ **Year:** 1984

■ **Publisher:** First Star Software

23 First released on Atari's 8-bit range of computers, *Boulder Dash* would go on to have massive success across a staggering range of home computers and consoles. The C64 version was no different, and it remains one of the best puzzle games on the system, thanks to the super-cute hero Rockford – who became so popular that he infiltrated the pages of *Zzap!64* – as well as the deviously designed mazes that developer Peter Liepa created.

While it shared many similarities with Taito's obscure arcade game, *The Pit*, Liepa's *Boulder Dash* nevertheless stood proudly on its own two feet. It enhanced Taito's formulae by introducing all manner of new gameplay mechanics: the huge, multi-scrolling stages filled with precious diamonds for Rockford to collect, and deadly hazards for him to avoid. It's a timeless classic.

> **" Super-cute hero Rockford became so popular that he infiltrated the pages of Zzap!64 magazine "**

Barbarian: The Ultimate Warrior

■ **Year:** 1987

■ **Publisher:** Palace Software

22 Even without that infamous cover, starring a scantily-clad page three model, *Barbarian: The Ultimate Warrior* was always going to be a rip-roaring success. Heavily inspired by Frank Frazetta's stunning fantasy art and *Conan The Barbarian,* Palace Software dreamt up a beautifully brutal fighter that, in addition to still playing brilliantly, also managed to offer a sense of danger that, even now, can't be beaten.

We are of course talking about the infamous decapitation move that would immediately end a battle should you get the timing right. While tough to pull off against later computer, or human, opponents, the sense of satisfaction it offered remains unmatched. Steeped in atmosphere and with a rich sense of black humour – the goblin booting a head off screen never fails to raise a smile – *Barbarian* remains an excellent fighter and one of the best 8-bit brawlers on any system.
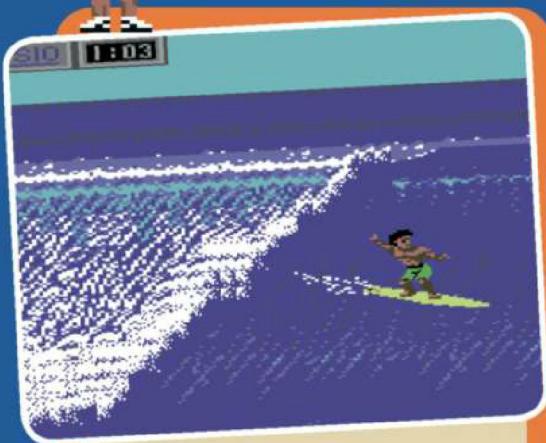
California Games

■ **Year:** 1987
■ **Publisher:** Epyx

21 **Epyx released a number of classic sports games for the C64, but this sterling effort from 1987 is the one you all appear to love the most.** Although it didn't offer as many events as its predecessor, *World Games, California Games* nevertheless managed to impress gamers thanks to its excellent animation, super presentation and the sheer variety found in the six included events: which ranged from half-pipe and roller skating to surfing, footbag and frisbee throwing.

As with past games in the series, accessibility and easy to follow instructions were the key to *California Games'* success, with each event being easy to learn, but difficult to master. Learn it you would, though, if only so you could completely hammer (up to seven) friends' attempts on each event. As bright and breezy as the state it was based on.
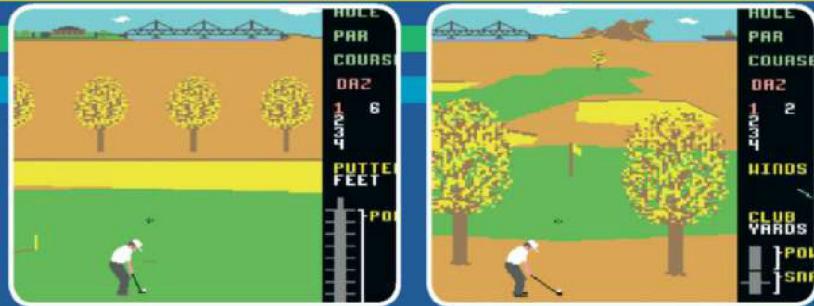
Leaderboard

■ **Year:** 1986
■ **Publisher:** Access Software

20 **With many in the gaming world now obsessed with the yearly antics of Tiger Woods and the PGA, it's easy to forget that it all started** with Access Software's sublime *Leaderboard.* Now, admittedly it wasn't the first ever golf game to appear on a home micro, but it's hard to remember a version that was this comprehensive and accessible.

Leaderboard had everything you'd expect from a cutting-edge golf game. There were four exceptionally detailed courses to choose from, three modes: Novice, Amateur and Professional, and 14 distinct types of clubs, making it an amazingly comprehensive package. By far the best aspect of *Leaderboard,* though, was its excellent control mechanics, which gave you a previously unseen amount of control when striking the ball.

It's long been surpassed by other golf games, with the developers going on to create the excellent *World Class Leaderboard*, but the original still remains the perfect example of a title that transcends its typical audience to appeal to an even larger group of people.
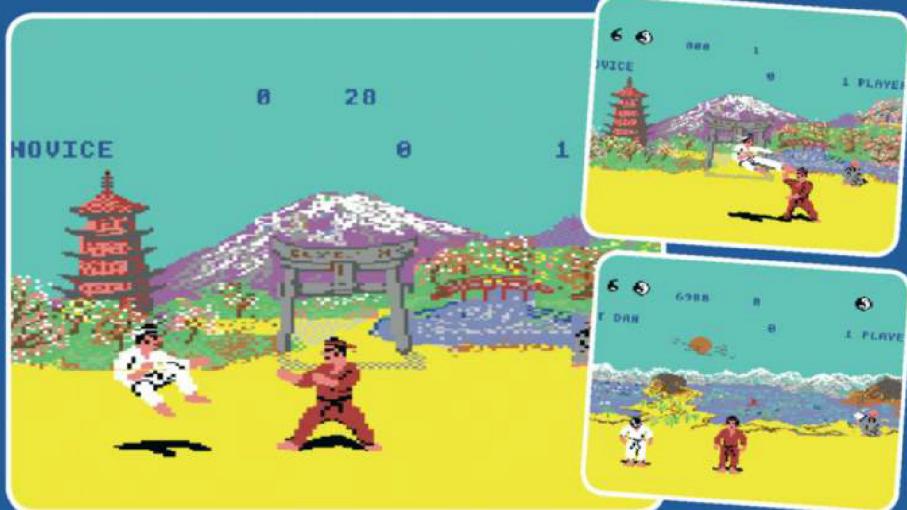
The Way Of The Exploding Fist

■ **Year:** 1985
■ **Publisher:** Melbourne House

19 **From the moment you first laid eyes on *Fist*, it was obvious where its inspiration had come from. It was clear to reviewers as** well, many of who proclaimed it to be the best version of *Karate Champ* they'd ever played, despite the fact that it was a standalone effort.

Yes, there were obviously similarities between both *Fist* and *Karate Champ*, but we'd argue that Beam Software's effort was the better game. For starters, it looked fantastic, with super-slick animation that gave the on-screen combatants plenty of life. While it was unable to match the impressive number of moves found in *Karate Champ*, it still featured a decent repertoire, all of which you would have to master if you wanted to reach the later stages and achieve the revered tenth Dan rank.

The Way Of The Exploding Fist was the first home computer fighting game to genuinely feel as slick as its arcade counterparts, and remains a fun, tactical little fighter.
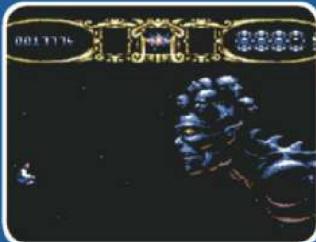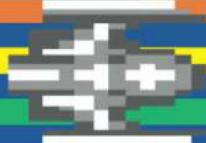
Myth: History In The Making

■ **Year:** 1989
■ **Publisher:** System 3

18 System 3 could seemingly do no wrong on the C64, with its 12 reviewed games in *Zzap64!* receiving an average score of 90 per cent. Of course, when you consider games like *Myth*, those high scores begin to make sense.

Myth: History In The Making was a truly epic adventure that eschewed the distinct isometric approach of System 3's games for a more traditional side-on scroller that saw its hero battling all manner of mythological creatures as he travelled through time.

Initially armed with just his fist and feet, the unnamed hero was able to gain access to a variety of different weapons as his adventure progressed. Weapons were needed as well, as *Myth* could be tough in places, requiring deft reflexes to survive. You'd battle on, though, as Peter Baron and Bob Stevenson had created a truly stunning game, with huge multi-load levels that perfectly captured the mythology that it was inspired by.

Delta

■ **Year:** 1987
■ **Publisher:** Thalamus Ltd

17 When it came to shoot-'em-ups the C64 was untouchable. Thanks to its super fast scrolling, it was able to recreate an arcade-like experience that its 8-bit peers often struggled to match, and as a result, it had many great exclusives.

One such example was Thalamus's *Delta*, an impossibly slick horizontal-scrolling shooter that boasted highly stylised graphics, challenging attack patterns and ridiculously huge bosses. Fuelled by a suitably manic score from Rob Hubbard (there was even a sound mixer for creating your own tune while the game loaded) *Delta* featured a fun power-up system where you collected credits to boost various aspects of your ship, a nice take on the mechanics that were popular at the time.

It suffers now from relying a little too much on memorising attack patterns, and ensuring you have the right weapons for the right areas, but this is a fault that can also be levelled at Konami's *Gradius* (which *Delta* is very similar to).

“ Thanks to its super fast scrolling, the C64 could recreate an arcade-like experience ”

Maniac Mansion

■ **Year:** 1987
■ **Publisher:** LucasFilm Games

16 If you read our exhaustive 'Making Of' in issue 94, you'll know just why LucasFilm's superb game made this list. If you didn't, then allow us to illuminate you. Created using the now legendary SCUMM engine, *Maniac Mansion* saw three kids exploring the titular house in search of a missing cheerleader called Sandy – discovering a bunch of wacky protagonists and devious puzzles on the way.

Creators Ron Gilbert and Gary Winnick were given free rein over *Mansion*'s creation, and it can be seen in every nook and cranny of the huge house you have to explore. Characters are memorable and spout genuinely amusing zingers, the puzzles are extremely well thought out, while the intelligent cursor makes it incredibly easy to manipulate your surroundings and interact with the objects and characters. A genuinely entertaining adventure that needs revisiting.

Buggy Boy

■ **Year:** 1987
■ **Publisher:** Elite

14 Considering how popular arcade conversions were on the 8-bit systems, only two conversions have actually made your list. The first is Elite's port of Tatsumi's *Buggy Boy*. The second… Well you'll find out in a couple of pages.

What's interesting about *Buggy Boy* is that while it struggles to capture the bright and breezy cartoon visuals of the original arcade game, it nails the actual gameplay, delivering a conversion that *feels* like Tatsumi's popular racer, even if it isn't identical. Perhaps realising that the C64 was never going to accurately recreate the thrills and spills of Tatsumi's racer, Elite instead tried to make the best possible racer that it could – the end results were impressive to say the least.

Dave Thomas' slick coding allowed for some brilliantly precise handling that made controlling your buggy a lot of fun. The scrolling was extremely smooth as well, and it ran at a great speed, delivering an excellent off-road racing experience that few other games could match. It may have only boasted five courses, but the finely honed gameplay kept you going back for more.

Last Ninja 2

■ **Year:** 1988
■ **Publisher:** System 3

15 There was more to *The Last Ninja*'s hit sequel than just a change of scenery and location, much more. For starters, it was a massive graphical improvement over the already impressive original, with detailed locations from John Twiddy that perfectly captured the atmosphere of New York. Technically impressive, skyscrapers soared ever upwards, levels were packed with detail and the Last Ninja and his counterparts featured far better animation than their critically acclaimed predecessor. Add in an extremely atmospheric soundtrack from Matt Gray and System 3's sequel was an aesthetic delight.

But there was more to *Last Ninja 2* than just pretty visuals; its gameplay had improved significantly to its predecessor as well. The vast majority of *Last Ninja 2*'s gameplay still revolved around you seeking out specific items that would give you access to the next beautifully detailed area, but the puzzles were far cleverer than they were in *The Last Ninja*. Combat and jumping were also greatly improved as well, not requiring the pixel-perfect timing that plagued the original game. It still suffers from the clunky controls of the original, and many preferred the oriental setting of part one, but System 3's sequel remains a shining example of subtly improving on an already great concept.

> ❝ Trenz delivered a stunning masterpiece that effortlessly improved on his original game and made the jaws of non-C64 owners drop to the floor ❞

Turrican II: The Final Fight

■ **Year:** 1991
■ **Publisher:** Rainbow Arts

13 *Turrican* was an amazing C64 game that made developer Manfred Trenz a household name. A sequel was inevitable as night following day, but how do you improve on such a killer formulae? If you're Manfred Trenz, you make everything bigger, bolder and better than before and included another storming score from Chris Hülsbeck. Oh, and you add an excellent shoot-'em-up level into the mix as well.

Turrican II is trashy, excessive, over-the-top, but most of all is fun. After honing his coding skills on the likes of *Denaris*, *Katakis* and the original *Turrican*, Trenz delivered a stunning masterpiece that effortlessly improved on his original game and made the jaws of non-C64 owners drop to the floor. Filled with the sort of kinetic action that was readily available in the arcade games that Manfred so loved, and featuring some truly mind-blowing enemies (the final boss towers three screens high) *Turrican II: The Final Fight* was a technically accomplished videogame that had great gameplay to back up its stupendous visuals. A perfect sequel that improves on the original in every possible way.

Rear View

Front View

SHORT RANGE CHART

Elite

■ **Year:** 1985

■ **Publisher:** Firebird

12 We were somewhat surprised to see *Elite* just outside the top ten, as the C64 version is widely regarded as one of the best iterations of the game. Surprise aside, it's still easy to see why *Elite* charted so highly, because it remains a phenomenal achievement, squeezing an amazing universe of possibilities into just 32k.

The C64 version arrived some eight months after the original BBC version, but made up for its tardiness with additional 'special missions', the inclusion of Trumbles (a homage to *Star Trek*'s Tribbles), and a rendition of The Blue Danube Waltz, which plays whenever you dock.

Bugs had also been eradicated, giving C64 owners a more solid version that was only really let down by its slower running speed.

Fortunately, *Elite*'s focus on exploration meant that the slower pace wasn't an issue and it went on to be spoken of in the same revered tones as its BBC predecessor. A true classic that paved the way for future flight simulators and open-world games.

Kik Start II

■ **Year:** 1987

■ **Publisher:** Mastertronic

10 *Kik Start* was a huge success for Mastertronic, proving that a £1.99 game was just as good (and sometimes better) as a full-priced release. Shaun Southern's sequel blew the already excellent original out of the water, delivering far better visuals, more courses, and best of all, an utterly superb level editor.

Gameplay-wise *Kik Start*'s sequel is very similar to the original, with you (and another player in the excellent verses mode) racing across five chosen courses as quickly as possible. This time, though, the controls had been greatly refined, allowing for far better precision, which made it a lot easier to judge the speed to tackle certain hazards at. Yes, it can be annoyingly fiddly, but the sense of satisfaction you receive on a flawless run is immense.

And let's not forget *Kik Start II*'s sprawling level editor. Sure, it takes a little while to get to grips with it, but once mastered you increase *Kik Start II*'s appeal tenfold. 24 courses was already a massive improvement on the eight found in *Kik Start*, but Shaun's comprehensive level editor meant it would last as long as your imagination did.

The Last Ninja

■ **Year:** 1987

■ **Publisher:** System 3

11 We're guessing that nostalgia, rather than common sense, is the main reason *The Last Ninja* sits higher than its superior sequel. Having said that, it's still an expertly crafted adventure and it's a testament to developer John Twiddy that no other game featured in your list along with its sequel.

The multi-load adventure was set across six distinct areas and saw the titular ninja, Armakuni, trying to defeat the evil shogun, Kunitoki. As with its sequel, *The Last Ninja* featured a healthy mix of exploration and combat, but was let down by some truly obscure puzzles and tricky jumping sections that still have us wailing with frustration whenever we attempt them.

And yet John's game still does a lot right, thanks to its incredibly atmospheric levels, gorgeous design and an incredibly slick engine, which in many ways feels like the sort of 3D world that Ultimate created for the humble Spectrum. Even with its many niggles, there's no denying the appeal of System 3's game and it's little surprise that it remains to be held in such high esteem. What a pity that we're never likely to see Armakuni go on any future adventures.
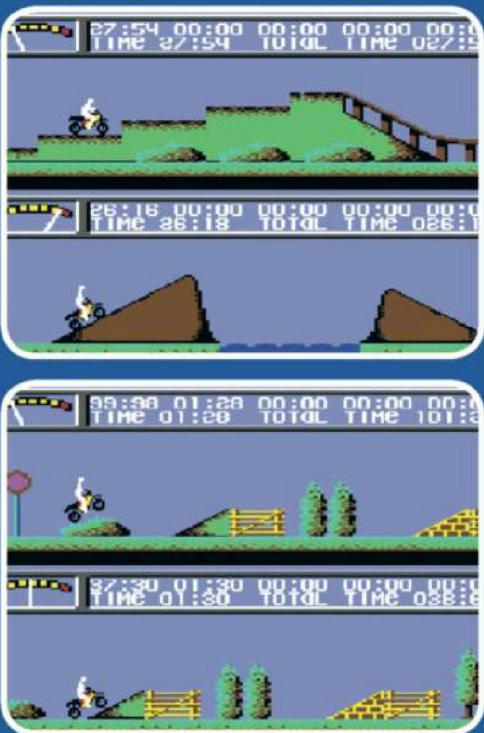
Bruce Lee

■ **Year:** 1984
■ **Publisher:** US Gold

9 A Bruce Lee game about collecting lanterns sounds like a recipe for disaster, but the reality couldn't be further from the truth.

Bruce Lee, like *Boulder Dash*, started off life on the Atari 8-bits, before moving over to other systems. It's an interesting hodgepodge of genres, successfully combining – admittedly limited – fighting moves with fluid, fast-paced platforming. It works well, with Bruce having to rush around each stage collecting lanterns in order to reach the next area. Spanners are thrown in the works with the inclusion of a lithe ninja, and the Green Yamo, who continually chases Bruce around the beautiful levels.

One of the best aspects of *Bruce Lee*, which still holds true to this day, is the way you can approach each stage. Do you simply pummel your way to victory or rely on simple speed? Either way, the end result is a masterful hybrid that's still resounding fun to play.

> **❝ It was never going to win awards for its minimalist visuals, but it delivered an authentic world ❞**

Thrust

■ **Year:** 1986
■ **Publisher:** Firebird

8 Like many hit 8-bit games, Firebird's *Thrust* owes its creation to a classic arcade game – in this case, *Gravitar*. In many ways, though, Jeremy Smith's offering is a far better videogame, subtly taking elements from the arcade original template, but stamping its own ideas all over it.

Thrust was never going to win awards for its minimalist visuals, with many gamers and reviewers calling it dated on its release, but Jeremy's focus wasn't on cutting-edge graphics, it was on delivering an authentic world for your spacecraft to explore – a task he achieved easily.

Thrust required you to do little more than explore the alien terrain and recover a set-number of fuel pods. The snag here, however, was that you had to get used to both *Thrust*'s realistic physics and deviously placed enemy ships. Part puzzle, part shooter, *Thrust* required you to be quick on your trigger finger while mastering your ship's delicate control system. It's a beautiful marriage of mechanics that still stands the test of time.

Bubble Bobble

■ **Year:** 1987
■ **Publisher:** Firebird

7 24 years after its original release and we still can't believe that Ste Ruddy was able to cram Taito's hit coin-op into the C64. Even after he revealed all in issue 95, it remains a phenomenal achievement, even if it isn't quite as arcade perfect as many made it out to be at the time.

In 1987, though, *Bubble Bobble* on the C64 felt like a revelation. Ste Ruddy's conversions was simply astonishing, with great sprite work, authentic level design and plenty of secrets that had been tucked away in the original arcade game. He even managed to get one of the secret levels in, bless him – impressive work when you consider that Ste had no inside help at all from *Bubble Bobble*'s original creators, and had to base all his experience on his own play-throughs. Ste's stupendously good work is further complemented by a wonderfully authentic version of the unmistakable theme tune from Peter Clarke, which adds further to an already excellent conversion. *Bubble Bobble*'s sequel also received a fine conversion (from Graftgold), but it still couldn't top Ste's effort with the original game.

In short, we'd argue that *Bubble Bobble* is the best arcade conversion on Commodore's machine, and judging by the sheer number of you who voted for it, it would appear that you're in complete agreement.

Armalyte

■ **Year:** 1988

■ **Publisher:** Thalamus Ltd

6 *Armalyte* is further proof that the C64 was the computer to own if you loved shoot-'em-ups. From its metallic-tinted visuals to its awesome boss designs, everything about *Armalyte* screams epic. Coded by Dan Philips and John Kemp, with graphic duties by Robin Levy and a punchy soundtrack from Martin Walker, *Armalyte* is a gorgeous game that calls to mind classic arcade hits such as *Nemesis* and *Salamander*.

More importantly, however, *Armalyte*'s game design is every bit as meticulously designed as its scintillating visuals. Enemies are cleverly placed, offering a stiff, but not overtly unfair, challenge, while the actual level design is superb, offering plenty of areas where pinpoint movement is just as important as shooting accuracy. Power-ups are also of a high standard, and while they're not original, they all pack a meaty punch and are extremely satisfying to use.

Armalyte may not be very innovative, but it's an expertly crafted shoot-'em-up with a timeless quality to it. The fact we still regularly play it is all the proof of its excellence that you need.

Impossible Mission

■ **Year:** 1984

■ **Publisher:** Epyx

5 Even today, Elvin Atombender's infamous taunt "Another visitor. Stay a while… Staaaay forever!" sends a tingle of excitement down our spines. Created by Dennis Caswell in 1984, *Impossible Mission* was an atmospheric romp that saw Agent 4125 leaping and somersaulting his way through Elvin's labyrinth-like complex in search of missing password pieces that, when assembled, would allow the agent access to the main control room.

It's not an easy task, though, as the diabolical genius has scattered the pieces all over his lair. Worse still, vicious robots guard many of the lifts and platforms, and Agent 4125 must either athletically leap over them or deactivate them via the many computers found on each screen.

Add in a strict six-hour time limit (with every death knocking ten minutes off the clock) and *Impossible Mission* became a frantic race against time. Numerous ports and sequels followed, but Agent 4125's original adventure remains his best.

Uridium

■ **Year:** 1986

■ **Publisher:** Hewson

4 To many C64 owners, Andrew Braybrook is a god, a coding god, of course, but a god nonetheless. While he occasionally dabbled with other systems, his mastery of the C64's innards was legendary, and he delivered a number of super-slick games that felt just as polished as those you'd seen in arcades.

Uridium scored an astonishing 99 per cent for its graphics when it was reviewed in issue 11 of *Zzap!64*. It's a near-perfect score, but totally understandable when you witness what Andrew was making the C64 pump out. Impossibly fast, silky smooth scrolling combined with gloriously detailed Dreadnoughts and stylish-looking ship sprites to create an awesome game that still impresses today.

It was *Uridium*'s meticulously designed gameplay that most remember, though, with your Manta-class Space Fighter effortlessly gliding over the huge Dreadnoughts and taking down the hordes of opponents that constantly assaulted you. It wasn't just the Dreadnaught's fleet that caused issues, though, as the battleship itself also had to be contended with. Each of the 15 huge ships had various outcroppings on them that couldn't be destroyed, meaning you had to fly around them to avoid losing a life. It's a great mechanic that really heightened the feeling of flying over a huge ship and made for terse bombing runs. Fortunately, your fighter was more than up to the difficult task thanks to being highly manoeuvrable and a joy to control. Take down the Dreadnought's many gun emplacements, land your ship – no easy task in itself – and you'd get to repeat the process against an even tougher adversary.

Even now, some 25 years after its original release, *Uridium* remains a breathtaking shooter to play, with a timeless quality that few other C64 shoot-'em-ups can boast. It's proof to Andrew's skill as both a coder and a game designer that he's the only developer to have two games in your top five.
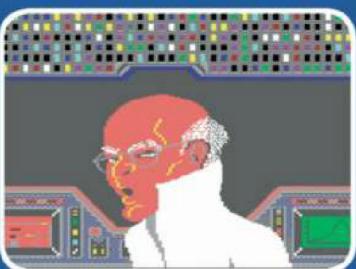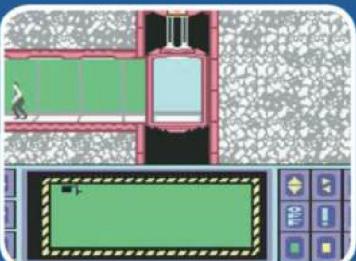
International Karate +

■ **Year:** 1987
■ **Publisher:** System 3

3

It's easy to forget the understated genius of Archer Maclean's sequel to the acclaimed *International Karate*. For the uninitiated, all he did was add a third fighter to an already great game – and that's pretty much it. The reality, of course, is that there was far more to Archer's sequel than just that additional fighter, but it's amazing how such a seemingly straightforward idea could help lift it above so many other examples of the genre. In fact, we'll go as far as to say that *IK+* is the best 8-bit fighter, full stop.

By far the most astonishing aspect of *IK+*'s third pugilist is that we've never seen the mechanic emulated elsewhere with the same dazzling effect. Sure, there are games like *Powerstone 2* that take the idea to its natural three-dimensional conclusion, but from a 2D standpoint? We just can't think of a decent example at all.

One of our favourite aspects of *IK+* is just how expressive and animated the new fighters were. Archer's sequel added stomach kicks, a dangerous head butt, and several other moves to the standard *International* roster, turning combatants into truly dangerous opponents. Archer also included an exceedingly useful backflip (inspired by watching *Grease*) that allowed fighters to get out of trouble if things became too dangerous. The frantic on-screen fisticuffs were backed up by another magnificent score by Rob Hubbard (who had also worked on the original), while even the referee had more to do in Archer's blistering sequel.

Originally assigned to the background, he now pops up during matches to report on the current scores and give encouragement to players. It's a mechanic that works surprisingly well, spurring on the player to greatness, even when he's trailing by a full point. Last, but by no means least, was a new bonus round that saw your player deflecting an increasing number of bouncing balls. As the round continued the speed and trajectory of the balls increased, requiring amazing reflexes to net the best scores.

Despite the sheer amount of action that Archer had packed into his sequel, he still wasn't satisfied, and he began tinkering with *IK+*'s once static backdrop. Fish randomly leapt from the water, spiders would dangle down from overhead beams, gulls would lazily fly across the sky; it all helped *IK+* to not only feel realistic, but also alive.

Wizball

■ **Year:** 1987
■ **Publisher:** Ocean Software Ltd

2

***Wizball* is one of our favourite ever C64 games, so it's gratifying to see it chart so highly. Part platformer, part shoot-'em-up (with a healthy leaning towards the latter genre), *Wizball* remains a fantastic game that never fails to impress.**

After the evil wizard Zark leeches Wizworld of its vibrant colour, Wiz and his pet cat Nifta attempt to restore the now drab world to its former colourful glory. This involves Wiz jumping in his titular Wizball and moving around the drab, monochromatic world while avoiding hazards and taking down waves of enemies. One of the most delightful aspects of *Wizball* was just how well its mechanics worked. Initially, you can only bounce around, which more often that not can get you into all sorts of trouble. As you shoot down waves of enemies they will leave pearls behind, which in turn light up seven distinctive power-ups.

A quick waggle of your joystick will select said power-up which can range from more powerful firepower, to thrust, and anti-grav: which gives you far better control over your spherical craft. Last, but by no means least, is the Catalyte, which enables you to switch control to Wiz's cat Nifta, so you can mop up droplets of colour as they fall to the floor.

It's a delightful system, fully controlled by the joystick, which easily captures the arcade experiences that were so popular at the time. It's also beautifully balanced, requiring you to switch between shooting and collecting in order to get through the eight large game worlds. Highly original – few other games have even tried recreating its magic formulae – it's a game that would work brilliantly on today's popular handhelds. For some, *Wizball* is a hardcore shooter, while others prefer its puzzle and co-op elements. Regardless of the type of game you think *Wizball* is, there's no denying that there's nothing else on Commodore's machine which is quite like it.

Paradroid

■ **Year:** 1985

■ **Publisher:** Hewson

1

Andrew Braybrook's *Paradroid* is a masterpiece, there's no other way to describe its sheer brilliance. Like *Wizball, The Sentinel* and many other games in this list, it's based upon the simplest of ideas, but Braybrook managed to make everything about it feel so much more epic. As with *Wizball,* at first *Paradroid* appears to be nothing more than another simple-looking shoot-'em-up. Look deeper, though, and you'll discover that it's so much more than that, offering a healthy blend of different genres that not only manage to keep the gameplay fresh and exciting, but most importantly, keep you going back for more.

This is partly down to Braybrook's exceptional skill as a coder. As with *Uridium, Paradroid*'s coding is faultless, delivering impossibly slick scrolling and brightly designed play-fields that allow you to become totally immersed in the on-screen action, and prove to your non-C64-owning friends that they had backed the wrong horse. There are no niggles in *Paradroid,* no annoying little bugs to distract you from its absorbing gameplay; just a coherent, well put together world that draws you in to its murky depths and refuses to let you go. Andrew was a fervent arcade player back in the day – he still owns the original coin-op of *Rainbow Islands* – so it's no surprise to learn that both *Uridium* and *Paradroid* have the sort of slick presentation that was abundant in the popular arcade games of the time. In short, *Paradroid* is the arcade game you never got to play. Play it you will, though, because from the moment *Paradroid* sinks its claws into you, it refuses to let go.

Paradroid is set on a huge multi-tiered spaceship that is overrun with hostile droids. The player takes control of a unique droid called the Influence Device, and has the task of destroying all the other droids found on the spaceship's 20 decks. All the other droids are far more powerful than your little Influence Device, as noted by the up to three digit numbers found on their sides. In comparison, the Influence Device has a rating of just 001, meaning it can easily be taken out by virtually every other droid.

Fortunately, while the Influence Device isn't too hot in a gunfight, it does have the handy ability to take over another droid by 'linking' to them. Once 'linked' to a droid – of which there are 23 distinctive types – the Influence Device earns all the skills and firepower of the droid in question, making its task far easier to complete. It's worth noting, though, that you can only control a droid for a limited amount of time, so *Paradroid* requires you to play aggressively, constantly hunting down weaker droids with your weaponry of using your 'link' powers to control stronger opponents. Even the linking isn't easy, though, as you need to complete a surprisingly complex mini-game first, which gets harder and harder as the droids get stronger and stronger. It's also worth nothing that linking to stronger droids isn't without its risks. Fail to successfully 'link' and your host droid will be immediately destroyed. Fine if you're already in another droid, but not so good if you're the Influence Device, as it immediately results in the game's end. As a result, *Paradroid* features a great risk and reward system where you have to gauge the best way to dispose of each droid that you encounter.

Highly influential, its possessing mechanic has featured in everything from *Space Station Silicon Valley* to *Messiah* and *Mind Jack. Paradroid,* for us, is the zenith of C64 gaming, and is a title that every gamer, C64 owner or otherwise, needs to play.

Special thanks to Mat Allen for additional screenshots

URIDIUM
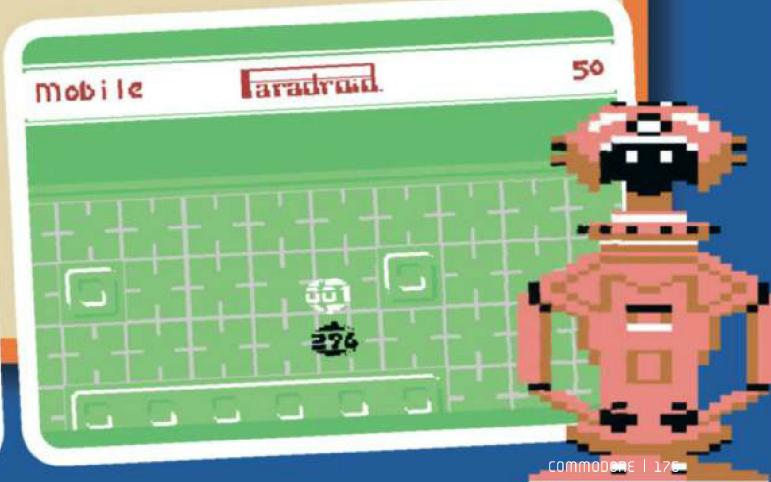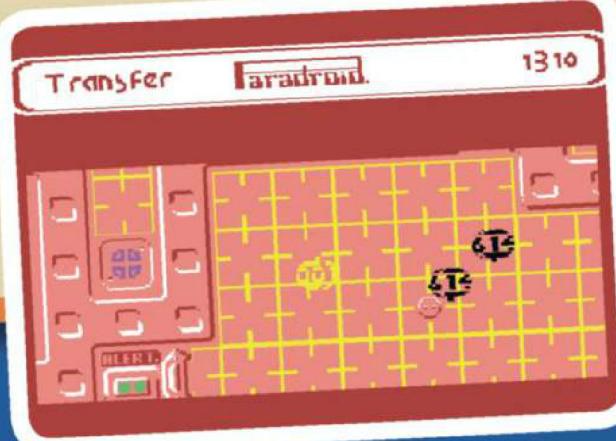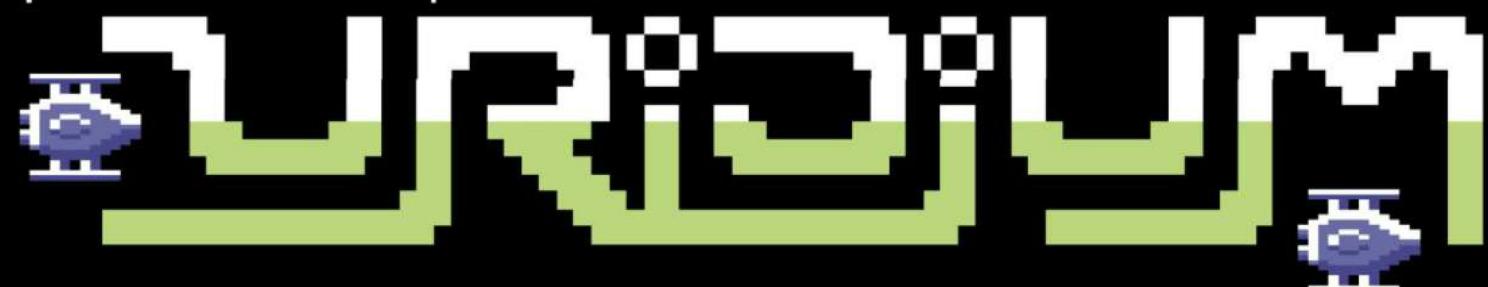
Eek! A super dreadnought has just appeared over each of the 15 planets in your galactic sector, and it's safe to say that they haven't just popped round to borrow a cup of sugar. In fact, they're draining planet cores to drive their power units – and they didn't even ask nicely.

Presumably due to the typical government cutbacks seen in every other shoot-'em-up ever, all that's available to take on these monstrous foes is a squadron of single-seat fighters. Each dreadnought is attacked in turn, your Manta engaging surface defences and enemy fighters before landing and activating a self-destruct sequence via a mini-game that looks suspiciously similar to something you'd find on a fruit machine. This can only be, as long-time C64 fans will know, Uridium.
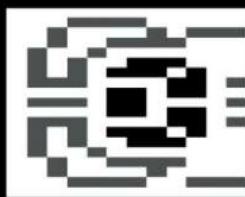
THE MANTA
Your ship, the Manta, is the key to the game. Although it offers plenty of firepower via its dual guns, its manoeuvrability is more important. Learn to control your craft's speed and flips to avoid hostile foes and ensure that you don't smash into dreadnought shields and comms towers.
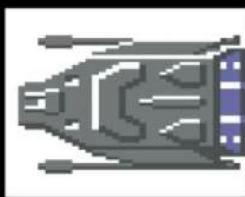
YOUR TRANSPORTER
The transporter is the first thing you'll see in each level of Uridium. It transports the Manta to the next dreadnought, and you're treated to a rather lovely animation as your ship exits to do battle. There's no practical reason for this item's existence, but it adds polish to the game.
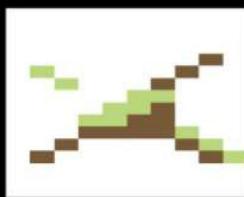
HOMING MINES
Each of Uridium's dreadnoughts has flashing ports on its surface. Be wary of these, because they house lethal mines that home in on your craft. Each mine only has limited fuel, and so if you can avoid it for a few seconds, you'll be fine – although later levels often launch them in pairs.

ALIEN SCUMBAGS
Enemy craft in Uridium increase in ferocity as you move through the game, but similar tactics work on even the highest levels. Ships in the game all have forward-facing guns, so stealthily sneak past and shoot them from behind. Waves are pre-set, so learn their movements and firepower.

WHY IS IT A CLASSIC?

Speed, focus and a strong foundation

Uridium arrived in 1986, before *R-Type*-style shooters with weapon upgrades invaded the C64, and so it might seem simple. However, Andrew Braybrook's *Paradroid* follow-up has plenty to engage the arcade-oriented gamer. First, it's fast: at top speed, dreadnoughts zoom past and you need lightning-fast reactions to survive. Secondly, the game is focused: it has its aims and achieves them with style and polish. Finally, the foundation is strong, frantic and fun, so much so that *Uridium* was followed by *Uridium+* on the C64 and an impressive, expanded but still action-packed Amiga sequel, *Uridium 2*.

FLUID CONTROLS

A manoeuvrable Manta

Around the time of *Uridium*'s release, most C64 shoot-'em-ups had craft little different from the *Space Invaders* laser cannon – you could move left, right and fire, and if you were lucky, you might also be able to move up and down a bit. By comparison, *Uridium*'s beautifully animated Manta is hugely manoeuvrable, with a number of cruising speeds, and the ability to flip over to chase hostile aliens and fly at an angle, in order to squeeze through gaps between shields and communications devices that litter the dreadnought surfaces. Only by mastering the Manta will you make any progress in *Uridium*.

LEVEL DESIGN

Death from below

Much like Andrew Braybrook's previous games, *Gribbly's Day Out* and *Paradroid*, *Uridium* isn't an out-and-out shooter – you can't just wade in, all guns blazing, and hope to make it to the end of each level. Instead, you must map out each dreadnought in your mind, memorising danger areas, escape routes, clusters of Manta-destroying comms towers and shields, and the location of the primary landing strip that enables you to infiltrate the dreadnought's onboard system and blow it to kingdom come. Later levels are especially devious, with maze-like surfaces that require particularly skilful flying.

BONUS SEQUENCE

Don't be a quitter

We suspect that Andrew Braybrook perhaps quaffed a little too much coffee while putting together *Uridium*, our evidence being its bonus section. Whereas Jeff Minter's *Batalyx* – another 1986 C64 shooter with a bonus round – plonks you in 'psychedelic noodling land' if you fancy a break, *Uridium*'s end-of-wave respite comes in the form of a bonus game. Instead of enabling you to relax, it keeps the tension high, taking the form of a simple fruit machine-style timing test: at each 'level' you hit fire to hopefully select a chunky bonus rather than quit and return to the game proper.

PLAYER REWARDS

Die (again), alien scum!

Although rather lacking in red pixels, *Uridium*'s one of the more bloodthirsty games on the C64. True, you're not faced with the dying eyes of alien foes, but there is a rather vicious element to the game once a level's complete. Post-bonus round, you're informed that the destruct sequence has been primed, and you're then returned to the game. As the dreadnought vaporises before your very eyes, there's just time for one more fly-past, and you can strafe any remaining surface targets for bonus points, presumably yelling 'Take that, alien vermin!' as you do so.

STRANGEST CONVERSION

The Last Starfighteridium

Although very much designed for the C64, *Uridium* nonetheless made its way to a handful of other platforms. The ZX Spectrum port was particularly good, and there were workmanlike efforts for the BBC Micro and Amstrad CPC. By far the strangest conversion, though, was to the NES. Arriving in 1990, Mindscape's *The Last Starfighter* – released six years after the middling movie, making it a strange tie-in in itself – was *Uridium* in all but name. Some elements were altered – the main ship's different, and the transporter's absent – but otherwise this is a surprisingly faithful, if curious, NES remake of a C64 original.

What the press said… ages ago

Zzap!64 (94%)
"*Uridium* is truly an impressive game, immaculate in both its execution and conception. The Manta is very responsive indeed and is a pleasure to control, skilful handling providing a similar joy to that of *Defender*. Overall an excellent game that should be on every 64 owner's software shelf."

C&VG (10/10)
"Andrew Braybrook's *Uridium* is simply the best 64 game we've seen since *Fist*. It's good-looking, sounds great, and the action comes thick and fast. If you're a 64 owner and you don't rush out and grab this game, there's no hope for you."

What we think

Uridium might seem a controversial choice for these pages, and it's fair to say that it today feels a little basic and at times unforgiving. But the gameplay mechanics are great, and the combination of fast-paced shooting/survival and considered, devious level design ensures *Uridium* a place among the C64's best blasters, regardless of its relatively minimal nature.

IN THE KNOW

» **PLATFORM:** COMMODORE 64
» **PUBLISHER:** HEWSON CONSULTANTS
» **DEVELOPER:** ANDREW BRAYBROOK
» **RELEASED:** 1986
» **GENRE:** SHOOT-'EM-UP
» **EXPECT TO PAY:** £1

THE MAKING OF...
GHOSTBUSTERS

Ghostbusters was something of a revelation when it hit the Commodore 64. Many movie titles beforehand were tedious, cynical cash-ins that often shared little or no resemblance to the actual movie they were based on. David Crane's Ghostbusters was different and proved beyond a shadow of a doubt that busting really did make you feel good.
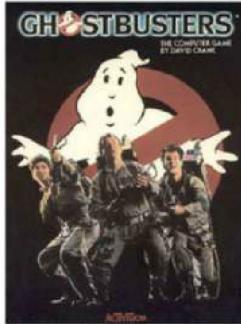
DEVELOPER HIGHLIGHTS

PITFALL!
SYSTEMS: ATARI 2600
YEAR: 1982

LITTLE COMPUTER PEOPLE
SYSTEMS: C64
YEAR: 1985

A BOY AND HIS BLOB
(PICTURED)
SYSTEMS: NES
YEAR: 1989

When you look back at the god-awful film and TV licences that came out on the early 8-bit computers, it's shocking to realise that many of them actually appeared after David Crane's delightful *Ghostbusters* and not before. Turds such as *Street Hawk*, *Knight Rider*, *Highlander* and *Miami Vice* – interestingly, all by Ocean – were just a few of the titles to make gamers curse with frustration; mainly because they shared little, or nothing in common with what they were actually supposed to be based on. Earlier systems such as the Atari 2600 fared little better, and while the odd enjoyable gem springs to mind on that system (*The Empire Strikes Back* being a reasonable example) it was hamstrung by some atrocious pieces of coding, the most memorable being Atari's infamous *ET: The Extra Terrestrial*.

"To be fair, the biggest problem with Atari's *ET* was the sheer cost of the licence," explains Crane when we ask him why so many licences failed to make the grade. "Atari had to sell around four million copies of the game just to break even. That would have been more games than any cartridge in history. Then you have the fact that the

game itself was developed in record time – leaving the game designer very little time to ensure the game played well." So while *ET* is a more extreme example of a poor licence, it does highlight one crucial aspect that all licences do have in common – a ridiculously short development cycle. "You have to remember that there is usually no interest in an actual movie licence, until the movie itself is far enough along to generate some actual excitement," continues Crane. "And once a movie is finally released its excitement only lasts so long, so a videogame publisher has to identify a licence, negotiate a licence, design and program a game, then get cartridges manufactured and on the shelves before the movie is old news. When all of these tasks have to fit into a compressed schedule, it is the amount of time allocated to game design and programming that inevitably suffers."

When you have a schedule as tight as the above, it helps that all parts of your team are firing on all cylinders, and being able to spot a potential hit ahead of time is crucial for success. Step forward one Tom Lopez, then Vice President of Activison's Product Development who Crane gives full credit to for acquiring the lucrative licence

BETTER LATE THEN NEVER

With *Ghostbusters* being a huge hit on the Commodore 64 it was somewhat inevitable that it would begin to appear on many other systems. What's interesting though is the amount of time that passed before some of them were released. While versions for the Amstrad, Spectrum 48k (the 128k version had a superior soundtrack), MSX and Atari 2600 all appeared in 1985 the NES, Master System and Mega Drive titles didn't appear until a few years later. The Master System was first off the blocks with a rather solid update in 1987, the so-so NES version appearing a year later, and finally, the Mega Drive received its own version in 1990, six years after the original game was released, which was actually a rather cool little platformer with great replicas of the film's stars. With such a gap in systems, it's perhaps unsurprising to learn that Crane had very little to do with the later versions. "By the time a game is being ported to other platforms, the designer of the original game has long since moved on to another original project. This is exactly what happened with *Ghostbusters*."

» Before you started busting you had to equip your car with the right equipment

before any other publisher expected it to be a hit. "When choosing movie licences for videogames you have to catch a licence early if you have any hope of making a good deal financially," Crane continues, clearly warming to the subject. "A good example is that of Acclaim when it signed the rights for *The Simpsons* when it was still a small feature on the Tracy Ulmann show."

Nowadays film licences can be a tricky proposition with anything from the film studio to the actual movie's stars calling the shots on how the game is finally realised. Fortunately for Crane, things were not quite so hands-on back in 1984 and the talented programmer found himself with a surprising amount on freedom, for what was to be such a big licence. There were no requests from Columbia to make a specific type of game, there were no rules or stipulations in place that meant Crane's already short development time would be further decreased, he was simply allowed to get on with it. A deal that suited Crane perfectly. "I had a script and some storyboards, and that was enough," he confirms. "My personal opinion on how to design a licenced game is this: Design an original game that works within the THEME of the actual licence. Don't try to make the movie into a game… make a game that borrows from the look and feel of the movie." Of course, when you already have some game mechanics in place, it makes it a lot easier to work out a final product, particularly when you find that its development time is going to be severely cut down.

"When Tom Lopez determined that the *Ghostbusters* licence was available and that he could get it for a reasonable price, he came to the game design group," continues Crane. "He told us, 'this licence is available. To make financial sense we will have to make a game in six weeks (as opposed to the normal nine months). What can we do?' We all agreed that if we had to start a game from scratch we could not do a quality game in the necessary timeframe." Luckily for Lopez, Crane had already been toying with a game called *Car Wars* that featured a resource-allocation segment where players could buy different armaments for their cars from the money they had earned on levels. *Car Wars* was also due to feature a top-view racing segment that would combine both racing and shooting. Needless to say, the seeds of an idea were quickly formulating in Crane's mind.

"One of the coolest props from the movie was the hearse-turned-ghostmobile," laughs Crane, clearly enjoying the trip down memory lane. "I could picture how to wrap the theme of this new movie around my existing game, with the minimum amount of effort. I kept the top-view racing game and replaced the guns, missiles, and rocket launchers with more appropriate 'weapons' such as the Ghost Vacuum. Ultimately though, if the base game *Car Wars* hadn't contained a resource-allocation segment, there is no way that the *Ghostbusters* game would have featured it. That's great, because I like the way it works. But the harsh realities of development schedules have a major

impact on game features. It always has and it always will."

Obviously Crane is being rather generous in how easily *Ghostbusters* came together. While the structure was in place, and many of the game mechanics had been decided, what lay ahead was six weeks of incredibly hard graft that saw Crane and the rest of the team working around the clock in order to meet their stringent deadline. "Obviously, *Ghostbusters* could have been a much better game with more development time," concedes Crane, "but if it missed the window of opportunity it would not have been the commercial success that it became. And Crane's tip for looking out for a commercial success? "Look for the sequels," he laughs, "No unsuccessful game has ever been followed by a sequel."

Keen to learn how Crane would have improved on an already enjoyable game our eagerness had to wait as Crane was now in full flow… "Here's a tip for game designers I like to call: 'How to deal with a tight deadline.' Complete a full game as quickly as possible, and then go back and enhance until they pry the code from your hands. After that, STOP adding features and only fix bugs, or you'll simply fall victim to 'creeping elegance'. Give your game a beginning, middle, and an end. If the code-release deadline comes and all you have is a fully playable and beautifully tweaked main game, all of your work is commercially worthless! That game can't be released.

Implement the complete game flow, from the time the player boots up until the final

CITY'S PK ENERGY: 2344 $2500

» As you drove to your next location it was possible to suck up stray ghosts.

CITY'S PK ENERGY: 464 $5700

» Mess up trapping a ghost and he'll slime you. Poor little Ghostbuster....

congratulations screen. Do this first, even if the fun part – the main gameplay sequence – is nothing but a placeholder. Second, make the game really fun but leave out neat little enhancements that might take a day or two to code. Then in the last weeks of a project, revisit each part of the sequence based on greatest need and add the cool little ideas that have been percolating in your brain.

The result is that near the end of the allocated time you have an average, but complete game that has at least some commercial value even before it has all the coolest tweaks. But since everybody knows that a great game sells better than an average game, you have the leverage to show your publisher that you can improve the game with each subsequent day they can give you.

I did this with the *Ghostbusters* title (as I do with all my games). I spent every hour that the schedule allowed tweaking the game, and it came out OK in the end. I could have done a lot more, but in the final analysis it seems to have been enough."

It certainly did seem to be enough, as *Ghostbusters* proved to be a massive hit for both Activision and Columbia, but was Crane concerned that such an effects-laden movie would translate well to an 8-bit home computer? "Not at all," he tells us. "If you think about it, it wasn't the special effects that made the movie enjoyable, nor would special effects make the game more playable. Modern console games often fall into the trap of substituting effects for gameplay. It was much easier for us in

the Eighties to avoid that trap because the hardware was so much more limiting than what is on the market today. You set out to design a fun game, and you put in as many cool effects as you could without compromising the fun."

One notable aspect of Crane's *Ghostbusters*, was that, unlike many of his previous titles, it was released on the C64 first and then ported over to the Atari 2600, which by then Crane declares as "being history". Despite Crane's frank statement, he still holds a torch for Atari's popular console. "The Atari 2600 was the most challenging system to program in history, and I loved it," he tells us. "As a puzzle-solver I derived great satisfaction from making the 2600 do things that its designers had never intended. The Commodore 64 on the other hand was far simpler. On one hand that allowed me to spend more time on gameplay and less on display difficulties. But in missing the challenge I would often try to make the Commodore 64 do unusual things. Why else would my first C64 game be able to talk?

Ah yes, *Ghostbusters'* now infamous speech. Whilst not the first game to offer digitised speech – that honour goes to Williams' *Sinistar* – it was certainly a chatty little title. "Midway through development, I decided it was important to add digitized speech to the game," explains Crane. "Some of the trendiest things to come from the movie
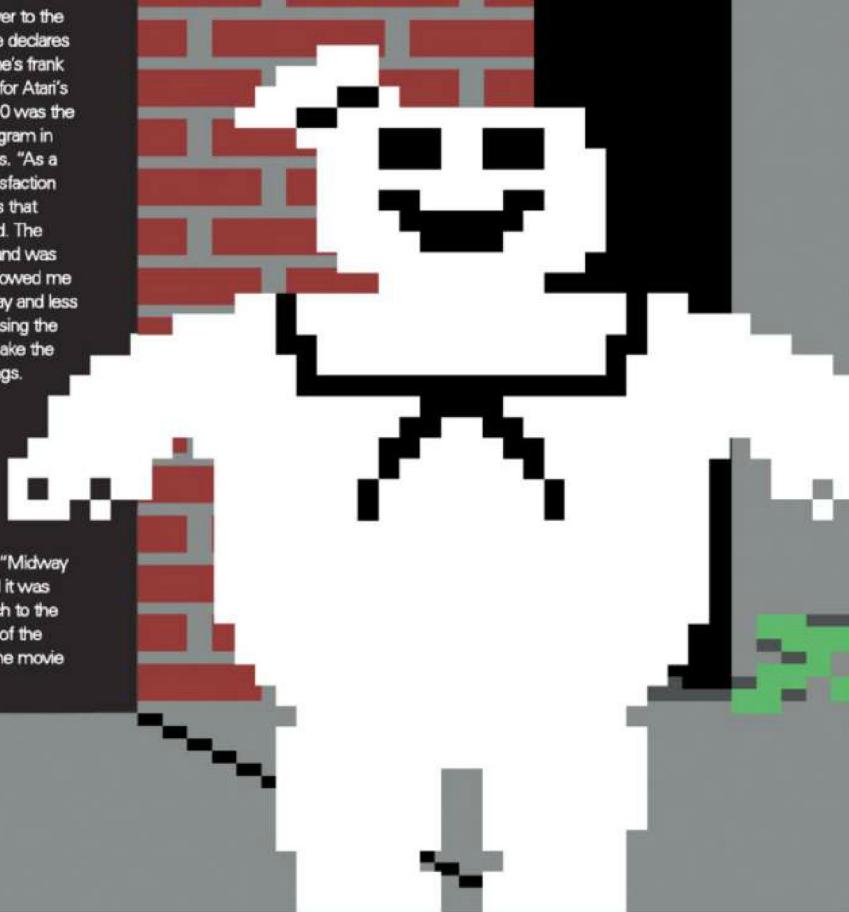
THE MAKING OF...
GHOSTBUSTERS

With David Crane unavailable for *Ghostbusters II*, Activision needed somebody else to create a follow-hit for the 1989 sequel. Several talented developers worked on various versions of the game with the Oliver Twins taking care of the Spectrum and Amstrad conversions. The actual game featured a variety of different playing styles, and whilst the graphics and sound were far superior, it didn't quite have the charm of the original game. "I prefer to break new ground with my game designs," replies Crane when we question him about why he wasn't involved with the sequel. "In the rare case of a sequel, such as *Pitfall II*, I was trying to accomplish things never before seen in a game. So if I work on a sequel it is more a matter of working an original game that happens to share a theme with another game."

» A lovely touch is how the words appear and you can sing along on the title screen.

were sound bytes such as 'He slimed me' and the crowd chanting 'Ghostbusters!' I felt the sounds helped to capture the spirit of the movie (pun intended) so I decided to keep them in."

Of course, you can't mention *Ghostbusters'* impressive sound without giving its fantastic rendition of the theme tune a mention. "*Ghostbusters* music was a masterful job of orchestration using the limited (by today's standards) music capability of the Commodore 64," insists Crane. "Russell Lieblich created a theme song so true to the original that if Columbia had any concerns about its authenticity they were never voiced to me. In fact, once I heard Russell's excellent rendition I just HAD to feature it as the lead-in to the game."

Not only did Ray Parker Junior's hit play at the beginning of the game, it was also accompanied by the actual words, so fans could sing along to their hearts' content. A nice touch that's rarely seen in today's blockbusters. "That was a great example of collaboration," explains Crane when we ask him how it originated. "The music was perfect – so much so that I felt it deserved to be featured. I pictured the sing-along screen – including the digitized crowd chanting "Ghostbusters!" But I didn't have the time to write the code. I passed it over to Garry Kitchen and his game design crew with the request to make a follow-the-bouncing-ball sequence to go along with the music. They did a great job on the implementation, and I was able to add it into the game at the very last minute. A

reviewer of the day had this to say about the game – referring, I believe, to that particular feature – 'never before have I so thoroughly enjoyed playing or even watching a game as entertaining as this one.'"

While creating the sound was relatively straightforward, creating the game's adversaries wasn't quite as simple. "It was always a challenge making things look recognisable on the 8-bit consoles," admits Crane. "There were actually times where a game design had to change because the on-screen objects that I wanted couldn't actually be drawn. I finally reached the point where I would tell the artists that I'd need some animals, some insects, and treasures. I left it up to them to draw a bunch of things and I picked the ones that looked the best. The ghosts were just as difficult, if not more so. The character artist on the project, Hillary Mills, did a lot of experimenting to make the ghosts look like ghosts. There's a little bit of Casper's cousins as well as influences from the movie in the final art. And, of course, there was the whole transparency issue. But overall I liked all the ghosts that we finally settled upon."

With the graphics and sound in place, it's time to return to what made *Ghostbusters* so fun in the first place: it's varied gameplay. Crane's hit has a masterful blend of different play mechanics ranging from simple resource management, to driving, to action. How did he manage to get the balance just right? "One way to achieve deeper gameplay is to intersperse multiple levels requiring differing player skills," Crane tells

us. "Otherwise you run the risk of boring the gameplayer. One thing to remember is that during the development of a game, the designer plays portions of the game thousands of times over. If we can make a game that is not boring to ourselves, it might just stand the test of time with consumers as well. So mixing different styles of play is good on many different levels. Masterful? Maybe. But good game design philosophy? Definitely." This was no more apparent than when you headed off to capture each new ghost. Rather than simply arrive at your next location, trap in hand, you drove to it (and in a nice touch, could suck up nearby ghosts if your car had the relevant equipment). "One of the hardest things to do in a game design is to segue between levels or tasks. You want to create a transition that makes sense and keeps the player immersed in whatever fantasy you have created for him. So ironically, the driving sequence fits perfectly between the game's ghost-catching levels. It also tied into the story line and gave the game the appearance of conforming to a sequence of events – something we have come to expect from movies."

Considering how solid the finished game was, it's surprising to discover that there were plenty of elements that Crane would have liked to fix if he had received extra development time. The sections that saw you capturing Slimers was to have different ghosts and tasks; Crane had also envisioned there to be much more going on around the city map and wanted to add many more different accessories to your car.
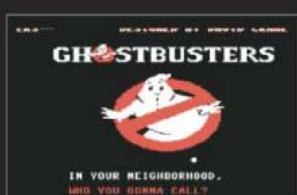
> ## "LOOK FOR THE SEQUELS; NO UNSUCCESSFUL GAME HAS EVER BEEN FOLLOWED BY A SEQUEL"
> DAVID CRANE

FLASHBACK

» **FILM:** GHOSTBUSTERS

» **YEAR RELEASED:** 1984

» **DIRECTED BY:** IVAN REITMAN

» **STARRING:** BILL MURRAY, DAN AYKROYD, HAROLD RAMIS, SIGOURNEY WEAVER

» **WATCH IT NOW ON:** DVD/BLU-RAY

When Ivan Reitman saw Dan Aykroyd's original draft for *Ghostbusters*, set in a near future where competing, interplanetary ghosts and monster-catching firms compete for business, he could see the massive potential for comedy posed by the underlying premise of the script. He suggested setting the film in contemporary New York around a University, while maintaining the essential comedic principle of three naïve experts attempting to go into business for themselves. Harold Ramis was brought in as a writer (then later cast as Spengler), and the three of them refashioned the concept into the film we now know and love.

The cast and crew have always maintained they knew the movie was going to be big. When working on a script of such imaginative quality, populated by some of the finest comedians and film makers available, there's no point pretending the result would be anything less than incredible. *Ghostbusters* had it all: big money special effects, action, originality and, most importantly, laughs.

Very few films have ever succeeded in transcending genre the way this film did, creating an immediate cult icon involving every aspect of its production from prop and costume, through character design to the funkadelic soundtrack. Overnight, *Ghostbusters* became an essential part of 20th Century heritage.

Ultimately though, everything turned out just fine, but was there anything in the final game that Crane wasn't happy about? "I always wanted to change the victory screen," he admits. "Every game has to have one, and in a perfect world it should be something spectacular. After all, the player has just completed a game that can take hours; he should be rewarded for it. But in the grand scheme of resource allocation, considering schedule, artist's time, programmer's time, and memory (ROM, RAM, disk space), a scene viewed only once per game is really not that important.

In *Ghostbusters*, at the end of the game you cross the streams (which is supposed to potentially bring about the end of the universe), and what you get is the door to the other dimension closing. Game Over... Big Deal. I expect players to be disappointed with it. Sadly, to really beef up that one sequence would have taken memory and artist's time away from the main game. It would have effectively diminished the game. As a game designer I make decisions on those tradeoffs dozens, if not hundreds of times for every game I design."

So there you have it, a licenced game, made in just six weeks that was actually pretty damn good (unlike many other licences we've had to endure over the years). Even today, *Ghostbusters* remains an enjoyable (if aged) title to play and before Crane left we wanted to know why he felt the game has endured over the years.

"Nostalgia is a powerful force. The movie was a blockbuster, and it was just so funny that you can't help but like anything that was associated with it. The game was a good one, although certainly not my best work ever. And for most of us, the time in our lives when we played *Ghostbusters* for the first time was a simpler time with mostly fond memories."
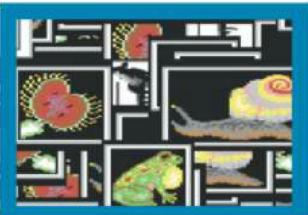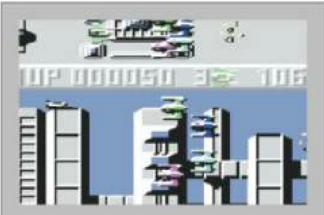
» If too many of your Ghostbusters were slimed simply head back to HQ and recruit some more

`CITY'S PK ENERGY: 2188`   `$2500`
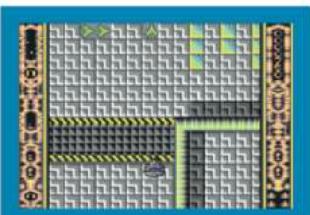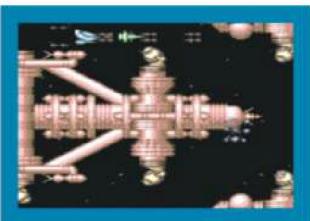
AN IN-DEPTH LOOK AT ONE OF THE COMMODORE 64'S MOST POPULAR PUBLISHERS

BRAIN STRAIN

The Thalamus logo stood for quality, with the company specialising in tough shoot-'em-ups and platformers, particularly on the C64. The escalating costs of developing for new machines saw the firm close its doors after just seven short years. Andrew Fisher looks back at the diverse range of programmers and the aftermath of the company's bankruptcy…

Newsfield director Roger Kean remembers, "Visitors to the London computer game shows at Earls Court and Olympia in late 1985 to early 1986 often suggested that Zzap!, particularly, ought to publish games, so the pressure to do something about it came at first from the reviewers Julian Rignall and Gary Penn. In the end, it was me who finally said Newsfield could do it and found a software publishing house, and then went on to persuade the other directors. It was obvious to us that we would need to poach someone with development and marketing experience, and Andrew 'Flathead' Wright (a regular Ludlow visitor in his role as Activision's PR manager) seemed ideal and was interested."

Many in the industry had doubts about the label's independence from the magazines that would review its products. EMAP, Newsfield's main rival, was selling off its software label Beyond. Roger continues, "We rented premises in London. Admittedly, these were in the same building as the London editorial team for LM Magazine, but then those people had little to no interest in games or the people putting them together. Obviously, as a wholly owned subsidiary, the Newsfield board kept tight reins on the Thalamus operation, but only from a management point of view. As to the Zzap! editorial people, they enjoyed no more or less advance information than they were used to getting from other developers at the time. Indeed, Gary Penn famously rubbished one Thalamus game (*Delta*) in a review."
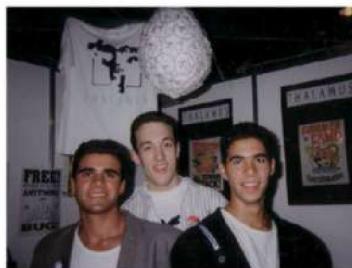
Ex-Zzap! editor Gordon Houghton continues the story. "The relationship between Newsfield and Thalamus was perfectly professional, as far as I remember. They certainly didn't feel like the same company; in fact, I didn't know they were until someone told me. On an editorial level they kept the two companies

quite separate. Newsfield never applied any pressure to give good marks to any game, let alone Thalamus ones. It was never even mentioned. They were quite happy as long as we could back up any rating we awarded with reasons for doing so." Gordon did come under pressure once, but more on that a little later.

Someone else was needed to work alongside Andrew Wright though. "The other Zzap! staff writer, Gary Liddon, was of course a coder, and spent a lot of his spare time slogging away on a C64," continues Roger. Gary had worked at Domark before joining Zzap! and was more than happy to tell us how he got the Thalamus gig. "I got my place at Zzap! through sheer force of will and lots of enthusiasm rather than on the basis of talent," he admits. "To be honest I fitted better in game development and Thalamus was a great step into that industry. Andy Wright was a good friend who was working at Activision as a PR guy, but was really unhappy and wanted to do something else. I had a lot of time for the high-ups at Newsfield having faith in a 19-year-old and a 20-year-old to set up and run a games publisher. It's crazy on the face of it but worked out well for everyone."

THE HELSINKI HEX HERO
The fledgling company attended the 1986 PCW Show as part of the Newsfield stand. "Julian got chatting to this tall, thin streak from Finland with the unlikely Greek-sounding name Stavros Fasoulas, who had the better part of a C64 game ready," recalls Roger. "Julian kept on raving about it and invited Stavros up to Ludlow after the computer fair ended. Penn and Liddon also admired the game, while arguing that it still fell short of being a winner. Stavros himself still wanted to add a deal more complexity, a process which took a few months while he

camped out in the flat Penn and Liddon shared." This flexibility on deadlines and the urge to polish a game would become a Thalamus hallmark. Gary remembers, "We offered loads of feedback to Stavros. To be honest, I think that may have been a bit of a pain in the arse for him. I later ended up a programmer and it's great getting external feedback on what you're working on; however, that feedback needs to come at the right time and place. I'm not sure how much Stavros was helped on *Delta* and *Sanxion* by a daily deluge of suggestions on what would be good in the game."

Stavros called it *Rainbow Warrior* after the bonus sections, but Gary suggested changing the name after the sinking of the Greenpeace ship. So the first Thalamus release became *Sanxion*, with Jon Twiddy's Cyberload, Mat Sneap's loading screen and Rob Hubbard's soundtrack. Eager for a follow-up, work started on *Delta*, another horizontally scrolling shoot-'em-up, with the backgrounds drawing inspiration from *Nemesis* and *Salamander*. Gary regards it as his favourite Thalamus game. "I can see it polarises opinion, and can completely understand why some people can't stand it. I really like the music and it hypnotically merged with the gameplay. For me Rob's contribution to that game almost equals Stavros's. We

» Pieter Opdam (at the back) meets John and Steve Rowlands on the Thalamus stand, PCW Show 1989 (courtesy of Jason Kelk).

» *The Hits*, a great compilation of early Thalamus games.

» The Thalamus Star, a response to US Gold's 'History in the Making' ads.

IN THE KNOW
Thalamus was formed in 1986 as the software label of Newsfield, famous for its computer magazines such as CRASH and Zzap!64. With several key Commodore 64 titles under its belt, it looked to expand to 16-bit machines and the Spectrum in the late 1980s. The liquidation of Newsfield in 1991 and the rising cost of development left Thalamus with low funds and many unreleased titles before it closed in 1993. The name was revived for Thalamus Publishing, which released a book of Oliver Frey's artwork in 2006.
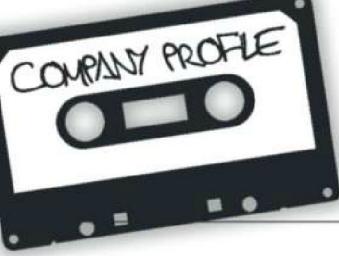
THALAMUS

PUBLICITY

The logo was one memorable aspect of Thalamus. Roger says, "I thought Oliver's logo was brilliant, simple but with so much impact. It looked great on T-shirts." Oliver describes it in *The Fantasy Art Of Oliver Frey*: "I wanted something that indicated sensitivity and a determination to win, and an eye gazing into a distant, imagined future or past." The Thalamus Club offered merchandise like watches and free pencils during its short existence. Another collectable is the psychedelic 'Fuzzy' given away with *Creatures*. Former Newsfield writer Richard Eddy joined the company to handle PR.

The box artwork was also used for adverts, with distinctive white borders. The 'Thalamus Star' adverts resembled a tacky tabloid front page, with bizarre headlines ('Aliens stole my brain') and facts about forthcoming releases. The 'Gold Rush' promotions for *Hawkeye* and *Armalyte* each had special golden cassettes distributed, which could be returned to Thalamus for a prize.

» Displaying its Thalamus Europe logo, the disk box for *Nobby The Aardvark* (C64).
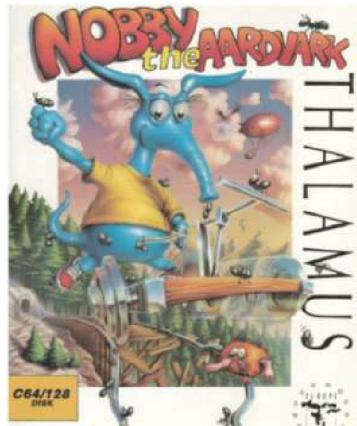

» Nobby sails past the wreck of the Titanic in his one-aardvark submarine.

got on really well with Rob and felt he went the extra mile for us. I'd say some of his best work is in the Thalamus games we worked on."

The third game in the Stavros trilogy was *Quedex – The Quest for Ultimate*

and newly recruited producer Paul Cooper was on hand to work with potential candidates. Gary Liddon had left to join Electronic Arts, while Andrew Wright had gone back to Activision. Gary states, "The trigger was being refused a profit share

public that was distinctive and did them no harm. So I'm pretty proud to have been involved in that and I'd say that firm footing we left the company on seemed to work as a lightning rod for some great up and coming talent in the games industry.

"I CAN SEE IT [DELTA] POLARISES OPINION, AND CAN COMPLETELY UNDERSTAND WHY SOME PEOPLE CAN'T STAND IT." GARY LIDDON

Dexterity. Each of the ten levels was a maze, requiring different tactics for the shiny metal ball to reach the goal. Stavros had to call a temporary halt to his programming career, returning to Finland for his compulsory national service. After programming the Amiga game *Galactic*, he went on to form Terramarque (which merged with another Finnish label Bloodhouse to become Housemarque).

Thalamus was in need of new blood,

or ownership in the company. It just seemed fair that given we were creating a lot of value we should have some stake in it. That was pretty firmly rebuffed." Did Gary have any regrets about leaving the company? "I think when me and Andy left, the company had a great and very defined image along with a couple of great games that'd done very well. The games were 99% down to Stavros but I think we created a way of presenting them to the

I know quite a few of the people who made stuff for Thalamus after mine and Andrew's time, and they're really talented people still doing well today."

SECOND WAVE

Martin Walker had previously worked on several licensed products including *Back To The Future*, which was completed in rapid time to a very strict storyboard. His

» Thalamus made great loading screens and *Sanxion's* was no exception.

» Clyde's friend is sliced up by Mr Chainsaw in the excellent *Creatures*.

"A DESERVED GOLD MEDAL WENT TO ARMALYTE FROM CYBERDYNE SYSTEMS, A HORIZONTALLY SCROLLING SHOOTER THAT REALLY STRETCHED THE C64. THALAMUS FOUND ITSELF WITH ANOTHER HIT."

» Richard Eddy & Robin Candy (Newsfield employees at the time) model Thalamus T-shirts.

» Major Dan Damage's hobbies include origami, skiing and blowing up planets.

project for Thalamus was a cross between a puzzle game and a shoot-'em-up – *Hunter's Moon*. In addition to the excellent shooter, Martin contributed music and sound effects to various other Thalamus games before creating the superb *Citadel*

» Cute platformer *Nobby The Aardvark* was released on the C64 but the planned Amiga conversion never saw the light of day.

» *Armalyte* was one of the best shooters on the C64, even if it was similar to Irem's *R-Type*.

for Electric Dreams. After a few years concentrating on music, Martin left the industry for good.

The next Thalamus release was *Hawkeye*, a game that divided critics and players. The Boys Without Brains created a good-looking game with parallax scrolling, great music by Jeroen Tel and an amazing animated intro sequence (the face of a Xamoxian telling the story behind the game). Beneath the gloss however was a tough, repetitive platform shoot-'em-up. Gordon Houghton came under pressure to give the game a good mark and ultimately it was awarded a Gold Medal. C&VG (published by EMAP) gave it a terrible 3 out of 10, while Commodore User's verdict was a more respectable 8. "I think EMAP underrated it and we (more specifically, I) overrated it," admits Gordon. "I was going to give it a Sizzler at the time, but felt pressured by one of the Thalamus people to up the rating. Not bribery – just heavy persuasion, to which I was unfortunately susceptible. It was my first month in the job and I probably wanted to please too many people too much of the time. It's not a mistake I made again, however; it had nothing to do with the Newsfield people, it was all down to me."

Fortunately, a deserved Gold Medal went to *Armalyte* from Cyberdyne Systems, a horizontally scrolling shooter

that really stretched the C64. With an eerie soundtrack from Martin Walker and some extremely striking visuals, Thalamus found itself with yet another hit. "*Armalyte* was the best horizontal shooter on the C64, and still one of my favourite shooters today," states Gordon. (For more on *Armalyte*, see issue 36's 'Making of' article.) The team of Dan Phillips, Robin Levy and John Kemp moved to System 3 and the planned sequel was never finished.

PLATFORMS & PITFALLS

Keen to stretch its wings to other formats, Thalamus created *Mind-Roll*, an Amiga and PC conversion of *Quedex*, and followed those with a Spectrum conversion of its popular C64 shooter *Sanxion*. Another high-scoring debut game was the excellent *Retrograde* from Apex Computer Productions – John and Steve Rowlands. Thalamus took a gamble on Apex's short track record in the industry, but it was a gamble which paid off. The problem was the speed at which finished games were being released. Several key projects, like *The Search for Sharla*, were proving to be very slow in development – but Thalamus chose not to rush games out of the door.
In 1990, Apex created *Creatures* – or 'Clyde Radcliffe Exterminates All The Unfriendly Repulsive Earth-ridden Slime' to use its full title. The game had a dark sense of humour; between scrolling levels filled with cute enemies, Clyde would have to rescue his fellow Fuzzies from devious 'Acme' torture devices. The sequel had six fiendish devices to stop, with more variety coming from three other sub-games. Helping out was Andy Roberts, Commodore Format's tips expert. After writing a letter full

UNRELEASED GAMES

Thalamus closed its doors with several titles left incomplete. Among the most eagerly anticipated was *The Search for Sharla*, a 3D strategy game in the style of *Lords of Midnight*. All that survives are screenshots and the novella. The licensed games *Q8 Team Ford Rally Simulation* and *Arsenal FC* also failed to reach the shelves, despite lots of publicity. Conversions figure highly on the AWOL list. The Spectrum versions of *Creatures*, *Armalyte* and *Bombuzal* (under licence from Image Works, the Mirrorsoft label) did not get finished, but a demo of *Armalyte* appeared on a Your Sinclair covertape. *Armalyte 2* for the C64 got as far as demo form, with a weapon shop and reused graphics. Amiga users missed out on *Beastmaster* (inspired by *Shadow Of The Beast*), *Nobby The Aardvark* and *Restrictor* (described by programmer Richard Underhill as "a cross between *Galaxy Force* and *OutRun/Afterburner*").

FINEST HOUR

ARMALYTE (C64, 1988)
Regularly topping polls for the best shoot-'em-up on the Commodore 64, there can only be one winner here. Everything works so well, from the extra weapons to the soundtrack. Cyberdyne Systems may have been unhappy with the marketing ploy of labelling it 'Delta 2' but it surpasses the gameplay of the earlier Stavros Fasoulas title. Play it on the original machine though: the Amiga and ST conversion (Armalyte: The Final Run) is a pale imitation.

» Platform shoot-'em-up *Hawkeye* received very mixed reviews.

THALAMUS

» Maximus collected Acme crates to assemble a vehicle, enabling him to get to the next level of *Summer Camp*.

of suggestions to the Rowlands, Andy ended up heavily involved in both games – from writing the manuals to designing the graphics.

John Ferrari decided to take up programming to fill the winter months when he wasn't working as a builder. After producing numerous budget titles for Codemasters, John came up with the enjoyable *Summer Camp*. Maximus Mouse had to get to the Moon via a series of single-screen sections to find an

American flag for the opening of Camp Wotadump. A simple enough concept, but a sound one. John also worked on the *Arsenal FC* football game, viewed from the side when other games had adopted the overhead *Kick Off*-style view. Sadly, John died in 1996.

Thalamus published more titles for the Amiga and ST, but they were less well received. The 16-bit conversion of *Creatures* failed to make much impact, and Pieter Opdam's *Venom Wing* had

great graphics but difficult gameplay. Graphic artist Metin Seven worked alongside Pieter. Metin recalls, "It was like a dream signing a contract with Thalamus. They had become a respected name in the games business. I'll never forget when Paul Cooper came over to the Netherlands for a few days, and during that weekend we signed the contract. When the game was released it received reviews ranging from bad to satisfactory, and the satisfactory ones were published in Zzap!64 and The Games Machine, both magazines from the Newsfield publishing company, who were the owner of Thalamus." A dispute between Pieter, Metin and musician Ramon Braumuller over the difficulty level saw the team split up. "Thalamus did pay a sum of money that corresponded to the proceeds they had estimated, but we have never checked what the actual proceeds from all *Venom Wing* sales were. Ramon and I used our share of the proceeds to travel to Britain and attend the Personal Computer World show together with Pieter." Pieter would go on to work at Team 17 on projects including *Worms*,

GAMES REVIEWS

HEATSEEKER
C64, 1990
» Programmer Paul O' Malley's sequel to his earlier game *Arac* has an environmental theme and an unusual style. The player controlls a Leg as it hops around the rainforest. On top is the Ball, which can be thrown out to kill enemies and, more importantly, absorb heat from fires. This heat can then be passed on to giant Plants, which open their leaves to protect the forest against acid rain.
81%
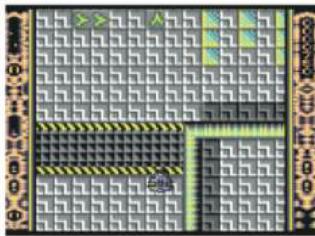
SNARE
C64, 1989
» A temporal portal hides a maze with the promise of a rich reward at the end of it. Programmer Rob Stevens took elements of *Tron*'s light-cycle game and created some fiendish puzzles. Jumping, shooting aliens and hitting switches are made more difficult by the snap 90° turns of the screen as you move. Shiny graphics and great music from Martin Walker round out the experience, underrated at the time.
90%

RETROGRADE
C64, 1989
» John and Steve Rowlands' rock-hard blaster has a very clever weapons upgrade system. The first step is collecting cash and the 'planet busters' from the surface. Then it's vertically scrolling platforms as you head down the ducts into the core. With the planet in ruins, the hero flies off to confront a huge mothership that is destroyed by shooting it to bits. A challenging game that is brilliantly presented.
95%
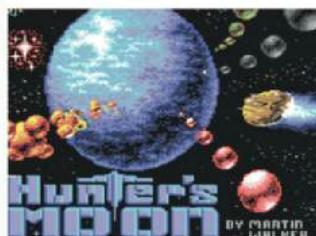
HUNTER'S MOON
C64, 1987
» Martin Walker's polished shoot-'em-up is worth revisiting. The enemy workers 'draw' the walls of the level as the player's Hunter spacecraft searches for starcells that show the way home. The puzzle elements become more devious later on, and the off-duty 'loop trainer' mode recalls Jeff Minter's work. An end sequence by Robin Levy and Cyberdyne Systems and some unusual sound FX make it memorable.
93%

WINTER CAMP
C64 & AMIGA, 1992
» What made this special were the cartoon graphics and varied styles of play. Maximus Mouse has to learn to ice skate, canoes down a river, throws snowballs in an *Operation Wolf* style level, follows a tune played on icicles and rolls down the mountain side in a giant snowball. All this to stop an eagle causing an avalanche! Elements of the game were inspired by a reader competition in Zzap!64.
86%

BOROBODUR
AMIGA, 1992
» *Venom Wing* was very tough, and Pieter Opdam's next game was just as difficult. Subtitled 'The Planet of Doom', *Borobodur* starts out as a platform game with some very polished graphics. After fighting your way through the jungle, it then switches to a 3D hoverbike racing game. The two styles alternate until you reach the final bad guy in his huge robot suit. Very tough, but it looked great.
79

» *Delta* was a slick shooter. The Spectrum version wasn't.

» You could play *Sanxion* by looking at either screen.

while Metin and Ramon joined forces with programmer Reinier van Vliet to write numerous games.

THE SLIPPERY SLOPE

A big shock occurred when Newsfield went into liquidation. Thalamus had to go out on its own, trading as Thalamus Europe. Roger reveals, "My recollection is a bit hazy, but we let the then-management of Thalamus (which included David Birch) do a management buy-out on some kind of sliding payment deal over time; this was a short while before Newsfield's September '91 demise. Thalamus carried on for about a further two years, but in the end it was caught out in the squeeze of underfunding and the increased costs of developing for the new console devices. Certainly, before Newsfield let go of control, the drain on central funds due to the rapidly increasing development times was having a detrimental effect – if not on final profits, certainly on cash flow. I would never go so far as to say that Thalamus Games brought Newsfield down, but it definitely contributed."

"The big problem was Newsfield Publications going bankrupt," admits musician Ashley Hogg. "That was a short way into *Nobby The Aardvark* if I recall. For the most part, we were left to our own devices but, as usually happens, the project took longer than we were hoping. The up-front advance was pretty low, offset by a higher royalty rate, but cash was tight – always a problem for small developers anyway. Thalamus got bought out and Codemasters asked me to move to their locale and help out with a project.

Dave Clarke and Jon Smyth finished up the C64 version over the following few months and eventually it got a release. The Amiga version died right there. But I was pleased that I managed to cram so much music into the C64 version." As for his memories of Thalamus Europe, at that time, "Thalamus was a really small outfit basically run by one guy out of a small office. Even handling production of one game, that was pretty tight back then. I also seem to remember the liquidators' reports making interesting reading...

"Thalamus struck a deal with budget label Kixx to republish many of the older titles and provide much-needed cash. The last game to be released was *S.U.B.* (Strategic Underwater Battles), an Amiga strategy title imported and translated by Thalamus. The 62% score from Amiga Power was a sad end. Left in limbo were several titles (see UNRELEASED GAMES) including the potentially lucrative *Arsenal FC*. Gary Liddon says, "Best memory? Well it's just one big best memory. As for the worst? It was sad to see it decline over the years, then going bust."

GAME OVER?

There was life after death (of a sort) for Thalamus. Andy Roberts started a new label called Thalamus Interactive. With

Steve and John Rowlands on board, as well as C64 coder Jon Wells, the company was responsible for *Zidane Generation Football* and *International Karate Advance* on Game Boy formats. Andy says, "The initial premise was to bring the back catalogue to modern-day formats such as the Game Boy Color (which was just entering the peak of its life-cycle). After spending what seemed like days on the phone with lawyers and liquidators, all of the Thalamus titles, with the exception of Stavros's games, were lined up for a phoenix-like rebirth. The furthest we got was a GBA demo; getting original product on to the Game Boy was exceedingly difficult, most publishers preferring the security of a big-name licence. And thus we switched to developing original ideas and IPs, but with the emphasis firmly on quality (I'd always liked the way that the gloss and polish of Thalamus titles was of an exceptionally high standard; you were always guaranteed a top-notch product)." According to Andy, "The Thalamus back catalogue remains locked in a fireproof safe, just waiting for the right moment to make a comeback."

Roger Kean and Oliver Frey formed a new company called Thalamus Publishing. The book most games fans were interested in appeared in April 2006 – *The Fantasy Art Of Oliver Frey,* including several examples of Oli's artwork for Thalamus. Roger says, "There has been a decade-long discussion about a History of Video Gaming but it always looked like no-one would be that interested. Up until 1996 we were still heavily involved in creating hint and tip books on games for various book publishers like Virgin, Carlton and Prima in the United States. *The Fantasy Art Of Oliver Frey* by no means featured all the material the still remains in Oli's possession, so there will probably be a second volume for everyone to enjoy in another year."

> ## "AFTER SPENDING WHAT SEEMED LIKE DAYS ON THE PHONE WITH LAWYERS AND LIQUIDATORS, ALL OF THE THALAMUS TITLES, WITH THE EXCEPTION OF STAVROS'S GAMES, WERE LINED UP FOR A PHOENIX-LIKE REBIRTH."
> ### ANDY ROBERTS

AVOID LIKE THE PLAGUE
CREEPY (Amiga, 1990)
Not the finest moment in Thalamus's history, *Creepy* is an uninspired clone of *Snake* produced by a French team. The worm slithers around a maze, eating pellets and trying to avoid crashing into its own tail as it grows. It really did not stretch the Amiga or gamers and soon proved frustrating.

THE DELTA CONTROVERSY
Delta on the Commodore 64 had great graphics, an amazing in-game tune from Rob Hubbard (part Pink Floyd, part Philip Glass as suggested by Gary Liddon), and the unforgettable Mix-e-load: with a joystick, C64 users could remix the Rob Hubbard loading music. It also had the power-ups its predecessor *Sanxion* lacked. But *Delta* only got a 74% rating from Zzap! (and a bad review from Gary Penn in particular), due to the need to learn patterns and the tricky credits system for earning extra weapons (trying to pick up something you don't have enough credits for kills you, and you need to keep topping up the extras). *Delta* did earn a Screen Star from EMAP's Commodore User, but Your Sinclair voted the Spectrum version (*Delta Charge*) 'worst game of the year' in 1990. Many put this down to the rivalry between YS and Crash.

» *Creatures 2* was a truly stunning sequel, and proved just what could be achieved on the Commodore 64 in skilled hands.

» More frosty shenanigans with the aptly named *Winter Camp*.

THE MAKING OF ZZAP! 64

It was the magazine that launched the careers of Julian Rignall and Gary Penn, among others, the publication that persuaded Newsfield to enter the software market with Thalamus Ltd, and to this day remains the essential guide to all things Commodore 64. Retro Gamer speaks to many of the key people behind its pages

Retro Gamer: Tell us about that first ever issue. Were there concerns about taking on another magazine at such an early stage of Newsfield's life?

Roger Kean: The first issue, cover date May 1985, went on sale in mid-April, but the planning for what would become *Zzap!64* began in the early autumn of 1984. With hindsight, it suggests we felt confident that Newsfield had established itself securely enough by then to risk a second publication. The birth of *Crash* had been painful and nearly ruinous, with our first distributor going bankrupt on us after delivering the second issue, which meant we hadn't received a penny of income to offset the costs of production and printing. Only the more than anticipated advertising revenue kept us afloat... barely.

Fortunately, Comag – Britain's largest magazine distributor – picked us up and advanced monies for the next six issues, and *Crash* sales became satisfactory, if not spectacular. Comag's backing enabled us to move to new and much larger premises in King Street. At that point, what had been a team of myself, Oliver Frey, Franco Frey, Matthew Uffindell on reviews and David Western on art, with mail order and secretarial support from Denise Robins and Carol Kinsey, grew rapidly with the addition of a staff writer and assistant editors, Graeme Kidd and Jeremy Spencer. Their task mainly comprised handling the score of Ludlow school kids who acted as the reviewing pool, while Matthew began increasingly to move towards our embryonic production.

RG: What sort of tools were you using to produce the magazine back then?

RK: Newsfield's mission was to use the latest available technology to speed up production and decrease the costs associated with traditional typesetting and film planning, all done in London. We instituted Apricot computers running MS-DOS with Microsoft Word in mid-1984 and began using CORA codes to format the typeface into galleys to be run out at the local instant printer. A process camera came along next to convert black-and-white photographs for the screenshots and editorial pictures to the dot-matrix required for the printing process.

RG: Why choose the C64 over the (cough) superior Amstrad?

RK: In part, it was this forward-looking methodology that first attracted Chris Anderson to Newsfield – that and the ideal of editing a single-format games magazine instead of one covering all aspects of gaming. Of course, we had our eyes on the new Amstrad, but the Commodore 64 was Chris's best love and the machine had rapidly established a decent user base, whereas the Amstrad was untried and untested right then. Besides, Jeremy Spencer had his jealous eye on the Amstrad. So we went with the C64 and put the Amstrad on the back burner for the time being.

RG: Where did the name *Zzap!64* come from?

RK: Once the industry's general hilarity at naming a computer magazine *Crash* abated in the face of its success, the word went out that our next launch would be named *Bang*, followed, natch, by *Wallop*. And, in truth, Oliver and myself rather fancied *Bang*. Fortunately, Chris overruled it when he came on board, although in the end it was Oliver who came up with *Zap!*. Something short and sharp. But *Zap!* looked too short for a masthead and clearly it needed the identity of the C64, so another 'Z' went in and '64' on the end. The double-z also made the concept of a *Zzap!* Sizzler pretty obvious.

RG: How much easier was it to set up *Zzap!* compared to *Crash*?

» Roger Kean

RK: *Zzap!64* was a much easier magazine to set up and launch than *Crash* had been. For a start, we knew the industry better and the software houses were crying out for a decent advertising vehicle. And then Chris Anderson looked after everything on the editorial front, from recruiting the staff writers Gary Penn, Julian Rignall and Bob Wade, to delivery of everything the much-expanded art department in Ludlow needed for layout. One of the new intake up in the art room was a certain Mark Kendrick, a natural talent, but not so good at removing Cow Gum from the layout sheets before inking in the column rules, with an inevitable bludge somewhere down the ruled line... Our distributor, Comag, was right behind the launch and so the first-issue sales of *Zzap!* were considerably better than those for *Crash* had been, and advertising reaction was close to ecstatic. Perhaps the only person on the team who was less than thrilled by the new magazine was Carol Kinsey, who had adjusted to answering the telephone for *Crash*, but found it ridiculous having to say, 'Hello, *Crash* and *Zzap!*...' How much worse would it have been answering the phone with: '*Crash*, *Bang* and *Wallop*, how can I help you?'

RG: Where did the idea for Diary Of A Game originate? You had Andrew Braybrook talking about *Paradroid* and *Morpheus*, there was a *Citadel* piece and one on *Lemmings* as well.

RK: I'm just trying to think whether they did start with Chris Anderson's three issues. I don't think so anyway, so that would be Gary Penn; he and Julian using their enthusiastic contacts with programmers. They reckoned they'd be a pretty interesting article for *Zzap!* readers. I didn't have any hand in it; as the editor I just oversaw what they got.

RG: Did you find with Gary as editor at the time it allowed you to be more hands-off and not have to do as much as you did with *Crash* when it first started?

RK: Absolutely, yes. I mean, *Crash* was incredibly hard work. *Zzap!* was already three issues up and both Gary and Julian knew what they were doing – or, perhaps more importantly, they knew what they wanted to do. We just talked over ideas like the diaries and I said, 'Well fine, you've got the contact. Go get them.' So it was much easier for me. It wasn't exactly hands-off for the first three issues that I did of *Zzap!*, but after that it was fairly clear that I took a more editorial management role really. Gary Penn had this sort of weird thing that he'd have his C64 on a screen and his Apricot computer next to it and papers piled up in a kind of semicircle so that sometimes it looked like he was in an organ loft playing the organ.

There was this sort of tall wall of paper stretching away from it. So I had to keep reminding him that he'd lose things if he didn't file it. No, he organised a great deal of the material that was not necessarily game reviews, and more or less fed me the mail they felt Lloyd Mangram had to answer, which was me.

RG: As you'd already had one successful magazine under your belt, were there any particular dos and don'ts you wanted to apply to *Zzap!*?

RK: No, I don't think so. Partly it was making sure that the tone of *Zzap!* was a bit like *Crash*. Obviously it was different in its own ways. But that the spirit of, how should we put it... that seriousness with irreverence, that carried on. But then quite honestly both Gary and Julian, and even more so shortly afterwards Gary Liddon, were kind of built that way anyway.

Oliver Frey: It became slightly more robust than *Crash*, I think, in tone.

RK: Yes, I agree.

RG: Would you say it took a slightly more mature approach?

RK: I think it did just because on *Crash* we had the schoolboy pool of reviewers, whereas *Zzap!* was all in-house. That was just the two Garys, Julian and a little later Dominic Handy (aka Paul Sumner).

RG: What do you think were the strengths of having a core team?

RK: It was much more integrated. It meant that everything that was going into the magazine was discussed on a monthly editorial basis, and then weekly and then daily. And we were able to review everything pretty instantly the minute it was written, and did take a function of sort of saying it's overlong, or perhaps it's getting bogged down with this detail. Whereas with *Crash* the reviews particularly would be coming in ad-hoc during the month, so there was a bit more control with *Zzap!*.

RG: Who came up with the idea of the Sizzler?

RK: That was Chris Anderson. It seemed a natural fit with the two Zs for *Zzap!*.

RG: You mentioned that Gary and Julian had a good relationship with software houses. How much pressure did you receive to give good scores to games?

RK: Well, there was always pressure. The most naked form of pressure was 'we won't advertise unless we get a reasonable review'. I don't think that happened an awful lot and perhaps more with *Crash*, in fact, than it did in *Zzap!*. I know it was cited in Anthony Caulfield's film [*The Newsfield Years*], Franco [Frey] saying he certainly came under pressure on the commercial end, but the answer was usually the same. For *Crash* you couldn't really go round to a bunch of school kids and say, 'Your reviews aren't giving a good enough rating because the advertisers aren't happy', because they were school kids; they just weren't going to

» Oliver Frey

Editorial: Julian Rignall, Gary Liddon, Gary Penn, Roger Kean.

bow to that pressure. Even more so with *Zzap!* because Gary Liddon, Gary Penn and Julian Rignall were just too bolshie to believe that they could be bought or alter their reviews for advertising.

The other form of pressure, which was more subtle and sometimes effective beneficially, was that software houses took to coming to Ludlow to preview games and get the guys that were going to review them to say what they thought was good and bad about them. And they'd go away and make alterations based on the recommendations that probably someone like Julian would make. What's subtle about that, of course, is it starts to build a relationship between reviewer, software house and game that you start feeling, 'Well, I think I'm going to be just a weenie bit kinder than I might have been.' I think that probably resulted in some slightly better reviews occasionally, but not very much.

RG: With regards to the covers, they were once again drawn by Oliver Frey. On *Crash* there were obviously a few covers that caused a little bit of controversy due to their styling. Did you experience any similar problems with *Zzap!*?
OF: Well, the *Zzap!* team were quite belligerent in the sort of ideas they had for covers. Maybe not quite so controversial like the *Barbarian* cover on *Crash*, but I always remember doing the *Leaderboard* cover – that wasn't my idea at all. That came up because we were accused by the editor of a rival magazine of being a fluffy lollipop magazine, so we proved him right. [laughs]
 RK: Well, that issue it was definitely going to be US Gold's

REVIEWERS CHALLENGE
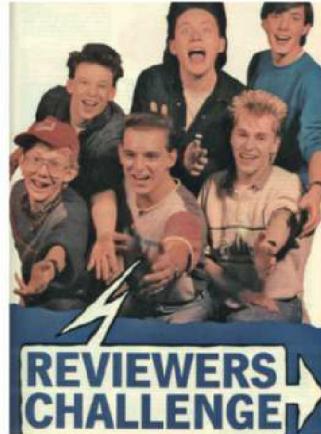
Leaderboard on the cover, and the problem with golf is it's a bit boring to use as a cover image, and I think I came up with the notion of, 'Let's answer back to the fluffy lollipop magazine comment. Why don't we have this sexy girl licking her lollipop very provocatively with all these gawking boys standing behind her not looking at the golf at all?' And Gary thought that was a great idea, Julian loved it and so we went ahead with it. I mean it was controversial, I suppose, in that sense, but what was great about it was the unique way of putting a golf game on a magazine cover as well. It was a very striking image.

RG: Was there much collaboration with the editorial team when coming up with covers?
OF: I think it varied a bit, but usually Julian and Gary Penn were quite visual and interested in the covers, so we would discuss it quite a bit, and then I'd go off and do a rough sketch. I think, if I remember mostly, they approved all little changes that were made. Actually it was quite good collaborating with them on covers.

RG: What was the cover selection process like?
 RK: I remember it being easy all the way through *Zzap!*. There were very few of those very complicated notions of merging two, maybe even three, games. Gary and Julian generally settled on a game and said, 'That's what we're having, that's what's going on the cover, now how do we make it work?'

RG: So, Oli, what do you

» Rignalls: Julian and younger brother Jonathan, who soon joined Newsfield in the production dept and by 1991 became MD.

» Oliver presenting reader awards for *Little Computer People*.

feel was the best *Zzap!* cover you did and why?
OF: I don't have a 'best'; just a lot of good ones. One that springs to mind is issue 3, *Metro Force*, where I got to do a 'real' sci-fi painting. It took me quite some time, but worked out great. So many others spring to mind. The good thing was when, by issue 4, the editorial team moved to Ludlow. Gary Penn and Julian Rignall, and later reviewers, were never short of ideas, which made it a fun process!

RG: Conversely, which one do you feel is the worst?
OF: There you have me – if there were an obvious one I'd be sure to remember it, wouldn't I? But I can't. There will always be covers that one's less pleased with than others, usually because one has not quite managed to do justice to the subject due to lack of creative juices or sheer time constraints. Oddly, I never thought the cover for *Zzap!64* issue 1 was very good; it wasn't iconic enough for a launch issue.

RG: And how difficult did you find the redesign that happened in issue 4?
OF: The redesign was mainly editorial – ratings boxes, etc. All I had to do was add the new 'reviewer faces' as they arrived. My work became more interesting because I got live interaction with the team now that they were in Ludlow, and the guys were free to voice their own thoughts directly; before that I was only briefed on the phone by Chris Anderson – there was no 'instant' email then!

RG: We interviewed Gary recently. He's quite a colourful character and Julian Rignall is also well known for sticking to his guns and getting his opinion across. What was it like working with those kind of guys who were obviously so passionate about what they did?
RK: I think after about a year and a quarter of running *Crash* they were a breath of fresh air. We had a lot of fun really. There was a lot of stress because people were often working weekends and nights, as I'm sure you are aware when deadlines were pressing. But no, it was great fun.

They were very good to work with, and they were full of ideas. Like when we came up with the art gallery when people started sending in their C64 art done on their computers. We had such a pile of it, and I can't remember who suggested that they should go in as a feature, but I came up with the notion of [treating] them as serious bits of art and having somebody who is actually a real art expert using art jargon to introduce each picture.

Then Gary Liddon came up with the notion of The Shadow, which Gary Penn picked up particularly; he liked that too. Julian was not

OLD FACES

GARY PENN

Then: *Zzap!64* **editor**
Now: Head of development, Denki

How did you get your job on *Zzap!64*?
By not winning *PCG* magazine's competition to find Britain's best gamer. Well, not quite. Chris Anderson was the magazine's editor and when *PCG* was closed and he launched *Zzap!* for Newsfield, he wanted writers who could play games – or gamers who could write – to give the magazine real credibility. At that time the journalists were professional, sure, but not gamers, not like the likes of Julian and me who played everything we could get our hands on – and, in Julian's case, played with exceptional ability. So Chris approached us and offered us jobs after we passed a writing test. I believe I wrote a review of Epyx's *Summer Games*. That led to an interview with Chris and the next thing I know I'm working on the launch issue of what was to become a historically significant magazine down in Yeovil, Somerset.

What's your fondest memory about working on the magazine?
I have no overriding fondest memory of the time. The initial rush of having access to so many new games, especially the unreleased ones – that was fantastic for about the first four or five months and then intermittently special with key releases. The shows and events, mixing with the people who made and played the games – that never got old. The family vibe within *Zzap!* and Newsfield – the indivisible work, rest and play; the ups and downs. That was something unique, too.
   There was the very comfortable relationship we had with the whole industry, especially the makers. Again, there was negligible delineation between what was formal and what was social – well, until it came to the reviews, which we took very seriously. And then, of course, there's the relationship with the readers: we were them and they were us. We treated everyone the same – gave everyone the same chances, anyway. There was a point when *Zzap!* became such a focal point for the industry and audience – that was probably the best time, but that's the time I don't remember so well. Even so, there was a lot to like back then.

What's the best piece of editorial that you ever wrote for the magazine?
To be honest I'd have to go back through all the issues and see if anything stood out. I know I enjoyed the reaction to the *World Cup Carnival* review. I vaguely recall that *The Sentinel* felt like a turning point for me. It was like nothing else at the time; it consumed me like no other game and I couldn't feel a rating – usually you'd have a rough feeling about what it was worth and then argue about it and refine the detail, but with *The Sentinel* I had no idea what it was worth. Some of the editorials you could read now and they wouldn't feel dated. Some things never change.

Why do you think *Zzap!64* remains so popular with fans?
I'm not sure why it's endured with such fervour but I can tell you why I think it worked so well at the time: it had a pure, true, honest feel to it; it felt like it was written by gamers for gamers. By people who lived and breathed games; people who cared passionately about games, especially quality games, and the people who made those games.
   We didn't stop at the publishers like everyone else. We went beyond, beneath the surface and straight to the real reason those games existed; we gave respectful coverage to the authors of the games. We were genuinely interested in what the people behind the games did and how they did it. We didn't treat anyone differently just because they were a publisher with money or a developer or a reader. I know if I wasn't working on *Zzap!* I'd have read it with respect, dedication and appreciation. It was rough and ready but it had such a vibrancy.

so happy with that but those two went away and worked on it, and it was a lot of fun coming up with all those different ways to cover games with articles like The Shadow and Gary Liddon's absurd Dim Dim, the Rubber Fish of Stupidity. All these things are sort of peripheral to games but made the magazine what it was.

RG: Were there any arguments regarding the scores awarded by *Crash* and *Zzap!* reviewers?
RK: As I recall, when the *Crash* reviews were done – because the magazines worked quite independently, there was almost no collusion between them – that would come up when the issues came back. And the *Crash* people would say, 'Well, it wasn't that good,' and then you'd get someone like Julian saying, 'Look at that stupid rubber-keyed thing! Look at it on the Commodore! It's much better.'

RG: So was there any rivalry between the two magazines? And can you recall any anecdotes?
RK: Oh, huge. Yes, all the time. Well, the rubber band fights were the most spectacular. We had three floors with a very huge sort of Victorian winding staircase, so ambushing was regular. It never came to fisticuffs. [laughs]

RG: *Zzap!* had covertapes at a later stage. What was the reasoning behind introducing them?
RK: Market forces. I think probably the first culprit to put a free game on the cover was *Your Spectrum*. Emap was quick to follow, and Future, and we more or less had to do the same. You were always under pressure from the distributor saying, 'Well, look what the rivals are doing, so what are you going to do about it?' I guess we had an advantage, both *Crash* and particularly *Zzap!* as well, that Gary and Julian got on very well with software houses, so they were able to get a reasonable deal out of them to put old games on the cover. It was not particularly a departure any of us at Newsfield wanted to do, but there seemed no way round it at the time. Even if you got a fairly good deal out of one, two, three software houses, that was still a

rather large expense to pay them, mastering the tapes, packaging them, adding the bags that naturally had to come with the magazine, and that budget had to come out of somewhere, and, of course, ultimately it came out of the number of pages. Also, we wanted the magazine to speak for itself, and didn't really want it to become something where people went to buy the tape over the magazine attached to it.
OF: Mind you, this was the end result, though, of the pressure we had been under early on with *Crash*. Every issue had to offer more and more money and competitions, which the distributor thought helped sell the magazine. So there was always a scramble to try and assemble as many competitions with as high a value in prizes as possible. So in a funny sort of way, the cassettes were just another step forward when the competitions weren't quite enough.

RG: Why do you think magazines like *Crash* and *Zzap!* were so well loved by pretty much everyone who read them?
RK: Well, I suppose there are a number of reasons. Both of them got to pretty hefty monthly sales, so a lot of people were buying them and four times as many people were reading them. Mostly I just think they were the first two magazines into the market that were dedicated to the games and the reviewing. The reviews were so detailed but everything that went on around them made them more a lifestyle.
   It was quite humbling, actually, at Replay to have so many people coming up, both *Crash* and *Zzap!* readers, and saying, 'I often get the binders out

» Zzap! Launch: Chris Anderson, Denise Roberts, Bob Wade, Matthew Uffindell and Oliver Frey.

FREY ON FREY

ZZAP! ISSUE 71
"A sexy take on the 'glamorous' Monaco Grand Prix, complete with a phallic racing car strategically powering into the foreground. Subtle, or what?"

ZZAP!

OLD FACES

PHIL KING

Then: *Zzap!64* staff writer
Now: Freelance writer and sub editor

How did you get your job at *Zzap!64*?
I was already working as a staff writer on *Crash* magazine in the same building. Yes, I was originally a Spectrum fan who moved over to 'the other side'. It was all a bit strange how I came to be working for *Zzap!*. I was actually off work with a broken ankle, which I got after falling off my nephew's skateboard – I was never any good at skating. I got a call from work saying I'd been moved onto *Zzap!*. It seems that there was some sort of falling out between the existing team and the management and most of them – Gordon, Kati and Maff – had left, leaving only Randy. So I joined the new *Zzap!* team along with Stuart Wynne and Robin Hogg.

What's your fondest memory about working on the magazine?
I have many fond memories, but what sticks in my mind is the camaraderie between the team in those early days. We

really all got on so well. I also remember playing *Kick Off* an awful lot – I've always been a fan of football games and was known at the time as 'Footy Phil', or sometimes 'Fatty Phil' – not sure why, since I was never that porky. We had a lot of fun in the office.

What's the best piece of editorial that you ever wrote for the magazine?
To be honest, I can't remember much about exactly what I wrote. I do remember reviewing joysticks, though, and testing their robustness by literally throwing them out of a first-floor window. I also wrote the adventure reviews, under the name Norman Nutz; previously I'd performed a similar role on *Crash*, taking over the persona of the female character Samara – which was a bit weird.

Why do you think *Zzap!* remains so popular with fans?
I suppose people grew up with it and remember it fondly from their youth. I think there was a fun, madcap element to it, too. We got away with some crazy things in those days – including replacing Stuart as editor with the alien Scorelord, who even had his own review cartoons. We were just mates having a lot of fun and producing a magazine at the same time.

and read them from end to end and they're still wonderful to read.' And I'm not so sure many of the rival magazines were as intense and involving as *Crash* and *Zzap!* were.
OF: Well, there was one visitor who actually said reading *CVG* you could do it in two hours flat and you wouldn't want to read it again, whereas *Zzap!* would take you a lot longer to read and then you'd start all over again the next day.
RK: Several people said that, and then would start again because they still had a week to fill in before the next issue

came out. So there was obviously that huge loyalty. I think another aspect actually – and probably one exception would be *Your Sinclair* – is that almost all the other magazines, at least for ages, never responded to the readers. They might have letters pages but they just sort of published the letter with perhaps an odd response from the editor, whereas *Crash* and *Zzap!* answered back. Lloyd Mangram wasn't always kind in his answers. So it created almost a kind of Facebook post comment feel that was definitely lacking from almost all the other magazines in the market.

RG: Can you tell us about the reviews? What was the actual review process? How long did they typically take?
OF: I recall things like *Forbidden Forest* being played for days. And then arguments between the team as to whether it was any good, or just how good. Others obviously less so, where for some reason or another minds were made up quite quickly as to what the game was worth.
RK: It's

worth remembering that the three core members of early to middle *Zzap!* – Gary Penn, Julian Rignall and Gary Liddon – were ace games players. There are articles in *Zzap!*, the *Zzap!* Challenge, where some kid would come along to Ludlow and fight against Julian Rignall and Julian would lose, but it was very rare indeed. Games that were worthy of it really got played pretty much to the end before finalising the review. I mean, the team would take turns writing up the basic review – the easy bit, so to speak, to describe it. But the debates over which I was often called in to mediate on the various merits of the game, all those aspects that went into the reviews – the gameplay, difficulty levels, all those sorts of things we rated – would often have varying opinions. And that was all right because, of course, each of them could write their personal opinion, but trying to rationalise their various views into an overall system rating was often, unless everybody agreed, fraught business and took hours and hours.
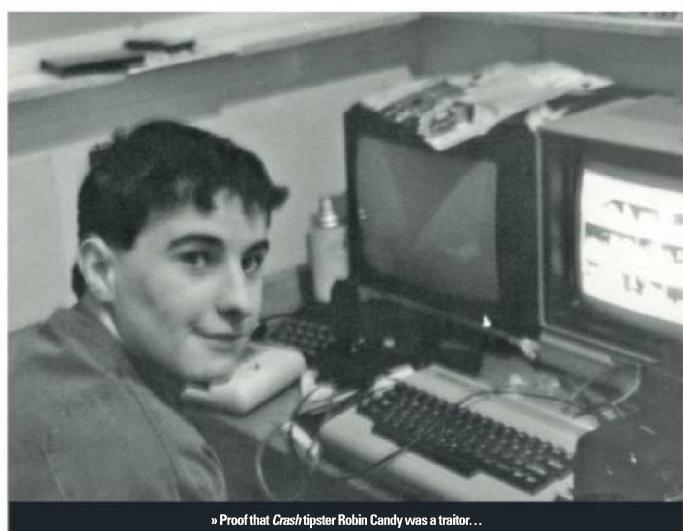
RG: What do you feel *Zzap!* offered over the other Commodore 64 magazines on the market?
RK: A lot more pages, a lot more insight into the game, a lot more games reviewed every month, and above all attitude, and that personal touch – that letters and tips did get answered; they weren't just printed and that's it. They always got an answer if they went in the magazine.

RG: Was there much of a transition when *Zzap!* started covering games on the Amiga?

RK: The Amiga didn't have a clear place to go somehow in our thinking, and yet it seemed unwise to ignore it. But it wasn't a particularly happy union and I'm not sure how many issues we did before it got dropped again. And we did, of course, consider the notion of an Amiga-only magazine, which was *Amiga Force*. So no, Newsfield really sort of touched on the Amiga but didn't go into it in too much detail. Although under Stuart Wynne's editorship there was a lot of Amiga coverage as well.
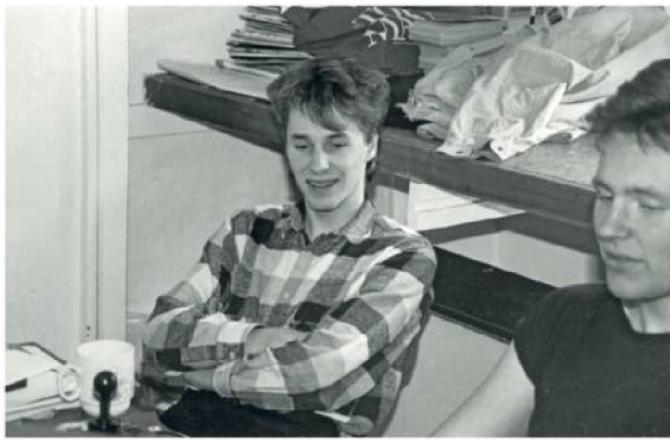
RG: When Thalamus started publishing games, some of its releases, such as *Hawkeye*, were deemed to have scored higher than they deserved. And some people say to this day that it's because of the connection between *Zzap!* and Thalamus. Would you say there was anything to that?

» Proof that *Crash* tipster Robin Candy was a traitor…

OLD FACES

MARK KENDRICK

**Then:
Art editor
Now: Group
creative
director,
Imagine
Publishing**

**Is it true
that you're
the longest-
serving
member of the Zzap! team? How
did this come about?**
I started work for Newsfield Publications on *Zzap!64* from issue 19, which was in production during September 1986. I was actually two hours late on my first day of work due to my car breaking down on Clee Hill. Not a good start to my publishing career! Once I got into the office the 'Twiddling with Twiddy' feature was my first work, actually! From that point on I continually designed on *Zzap!64*, crafting its design development through the inclusion of Amiga content in issue 43, working through the controversial 'all change' of editorial staff in issue 50, and following the collapse of Newsfield Publications in 1991 I recall having two days to get the mag back on the shelves with issue 79. I continued to work on the title until its final issue, 90, and was then responsible for the design of its replacement title, *Commodore Force*, in November 1992. I continued work on the magazine while working on other Impact Magazine projects until the company finally closed in February 1994. So, in answer to your question, I believe I am indeed the longest-serving 'non-director' staff member of *Zzap!64*. Cool, huh?

Did you have any input into covers?
I didn't have any involvement with Oli's covers really. Although I did work on a potential *Garfield* cover back in I think 1987, which I painted and was planned to go ahead while Oli was on holiday, but thankfully Oli was back in time and so my cover work never materialised. After all, the whole idea of Oli's style was to bring a unique look to our magazine titles, and his amazing artwork did this in spades. I think it's fair to say that there was and has never been a computer magazine brand with such a strong sense of cover style, bar perhaps *Super Pro*.

What was the atmosphere like in the Zzap! office?
It was a riot. Unprofessional, crazy, creative and amazing all at the same time back in the mid-Eighties. When you read the stories about what it was like working at Newsfield in the Eighties, they are not exaggerated. It's all true... and more! People there lived it, and it showed in the magazines. It wasn't a job, but more a way of life then. There was a lot of late-night working, partying, general insanity. No joke, but people used to take their parents on holiday to Ludlow so they could visit our offices, hang outside and get us to sign their magazines. It was like being in a rock band with all the fans. It was truly a brilliant time to be into magazine publishing and in particular the emerging phenomenon of computer gaming. Wild times. I should write a book one day on it, but I'd probably be sued, even though they'd know it was all true!

You worked on both Zzap!64 and Crash. Were there many differences between the two magazines?
There were differences, yes. Particularly with magazine tone, and I think that attracted a different type of person to work on each title. I was lucky enough to work across both key brands so experienced both mindsets. *Crash* was more serious and straight-laced. It was all about the games and was very committed to its review policy. *Zzap!64*, on the other hand, was still utterly committed to review policy, but was far more a party. The personalities on *Zzap!64* were, I think it's fair to say, much more larger than life and into the whole 'it's a wild ride', as opposed to it being a serious job, particularly before issue 50. That's how I saw it, anyway.

Why do you think Zzap! remains so popular with readers?
I think *Zzap!64* has such an enduring quality with fans because it had personality. It depicted a world of fun gaming, which was new and sexy at the time. That, coupled with strong writing personalities fronting the magazine, made it more like a TV show in printed form. So what young kid wouldn't want to be part of that crazy, wild, exciting world of gaming and fun? Plus, I like to think that it was pretty damn good design too, which helped sell the package!

RK: It's hard to say after time but my recollection then was that Thalamus product wasn't going to be treated any better than anyone else's in the magazine.

OF: If anything, for example, *Hawkeye* benefited from the fact that Stavros Fasoulas, who programmed it, did visit the offices quite a bit and he did seem to get on quite well with the team, so it could have rubbed off slightly that way. But, to be fair, *Hawkeye* got good reviews elsewhere too.

RK: It seems to me that nearly all of the Thalamus products got very good reviews in *CVG* and other magazines. In fact, interestingly, it was Julian Rignall who introduced Stavros Fasoulas to us and said, 'He's got this game *Sanction* and I think it's really good. You should have a look at it, and I don't see why Electronic Arts or Activision or anybody should have it; why don't we do it?' And the immediate reaction to that was, 'We're a magazine. We can't run a software house.' But he was pretty pushy on it, and then Gary got behind it and said, 'It is a really good game. It isn't finished yet but we should do it.' And in the end we were swayed by their decision and pressure on that to form a software house. And in terms of Newsfield versus Thalamus, Gary Liddon was really desperate to go and work on that, because he always wanted to be a programmer, and we said at the time, 'Well, you can't be a reviewer any longer. Basically you'll have to give *Zzap!* up if you want to do that, and if you do want to do that then do it with our blessing.'

RG: When did you realise that it would all be over for Zzap! magazine and that you'd have to close it down?

RK: Well, of course *Zzap!* did carry over for a few issues into Impact Magazines, the Europress Group company, but the distributors' attitude then was that we started *Sega Force* and *N-Force* and you couldn't really then have *Zzap!* sitting there comfortably with it; it would have to be *Zzap! Force* or something, and the decision was taken over our heads that the magazine would have to become *Commodore Force*. But clearly the 8-bit market was dwindling badly, and it didn't look like it had that much time to go before it was no longer going to be viable.

Nevertheless, despite the fact that hardcore *Zzap!* readers were disappointed in *Commodore Force*, the young team who worked on it worked very hard and very well and I don't think it was at all a bad magazine. By then sales had dropped from the heights of 90,000 a month to 12,000 a month, and going down every month, and hardly any ad revenue. But *Commodore Force*, or *Zzap!* in its *Commodore Force* form, did last until the end of Impact Magazines in March '94. Whereas with *Crash* I came in one day to discover I had a memo saying *Crash* is being swapped for an Emap magazine, an Amiga magazine. So we lost *Crash* just overnight like that; it went on to be joined with *Sinclair User* for one issue, and the Europress Group's Amiga magazine got enlarged with the one they'd swapped it for.

RG: Finally, looking back, what are your fondest memories of being involved in Zzap!?

RK: So many. But for me working with Gary, Julian and Gary Liddon. It was just a great time.

OF: A bit of that as well, of course. It's not so much any instance, but

it's just the fact I was quite pleased that *Zzap!* took on its own character. At the beginning, when it was first launched by Chris Anderson in Yeovil, I always felt Newsfield didn't have that much control over it because obviously Chris Anderson had his own ideas, which on the surface definitely tied in with ours. Once it moved to Ludlow, and on the whole the writing team was given more freedom than they'd ever had, it all blossomed in a strange sort of way. Unlike *Crash*, it was completely different.

ALIENS

"IT'S COMING RIGHT AT US"

» **PUBLISHER:** ELECTRIC DREAMS
» **RELEASED:** 1987
» **GENRE:** ACTION
» **FEATURED HARDWARE:** C64
» **EXPECT TO PAY:** A FEW QUID

HISTORY

With today's cutting-edge aesthetics, it's hard to ever imagine that we could once get scared senseless by a humble 8-bit computer game. Nevertheless, Electric Dreams' wonderfully chilling adaptation of James Cameron's *Aliens* did just that – and how.

Alright, so the likes of *F.E.A.R.*, *Condemned* and the *Silent Hill* franchise have presented terror in a whole new, far more realistic way, but it's amazing to think that playing *Aliens* was so intense that there was a time when I couldn't even load it up, let alone play it, unless my bedroom lights were on.

Despite being incredible basic to look at, *Aliens* dripped with atmosphere and was quite unlike any movie conversion of the time, and not just because it was so bloody good. The first-person view used in the game perfectly matched the moment in the film when the pumped-up marines start exploring the deserted base and, as the game progressed, it managed to capture all the terror and confusion of the movie in a way few other titles have managed.

Taking control of one of six soldiers, including Ellen Ripley, your aim was to search the narrow corridors of the abandoned base to find out what happened to all its inhabitants. As you made your way through the claustrophobic rooms, your ears were treated to an incredibly eerie soundtrack – all jarring notes and jangling bleeps – that made the hairs on the back of your neck stand up; it made you wish you'd invited a friend to share the fear.
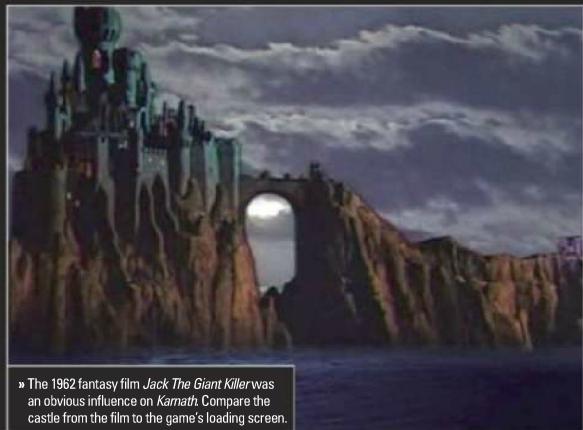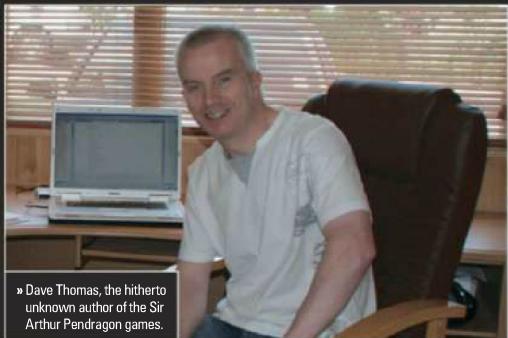
As scary as this initial exploration was, nothing could compare to when you finally tracked down one of your xenomorphic foes. A once slow beep from your scanner would continually rise in pitch and frequency as you drew ever closer to the alien nightmare. Take too long firing or, worse still, miss and the terrifying foe would rapidly move towards you, filling your ears with that painful alarm and your viewing screen with static. It may well be true that "In space no one can hear you scream", but when you're playing *Aliens* on your own it's quite a different matter…
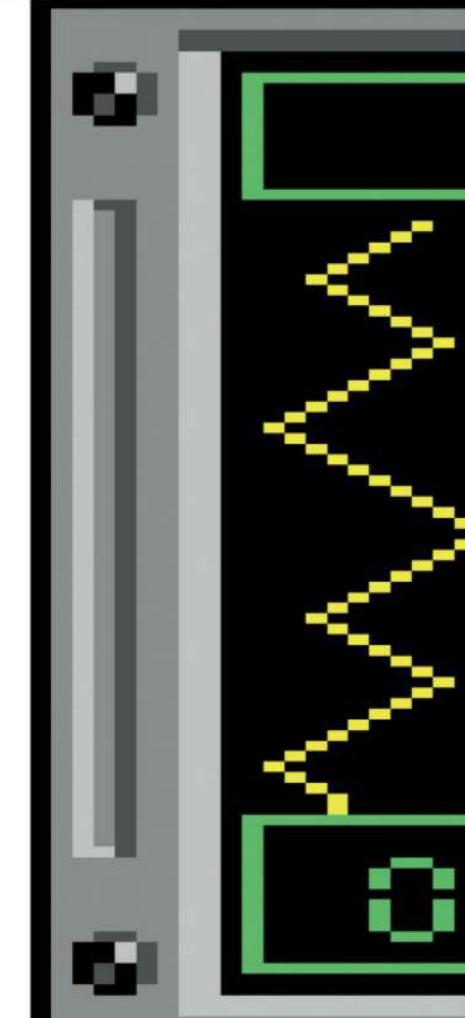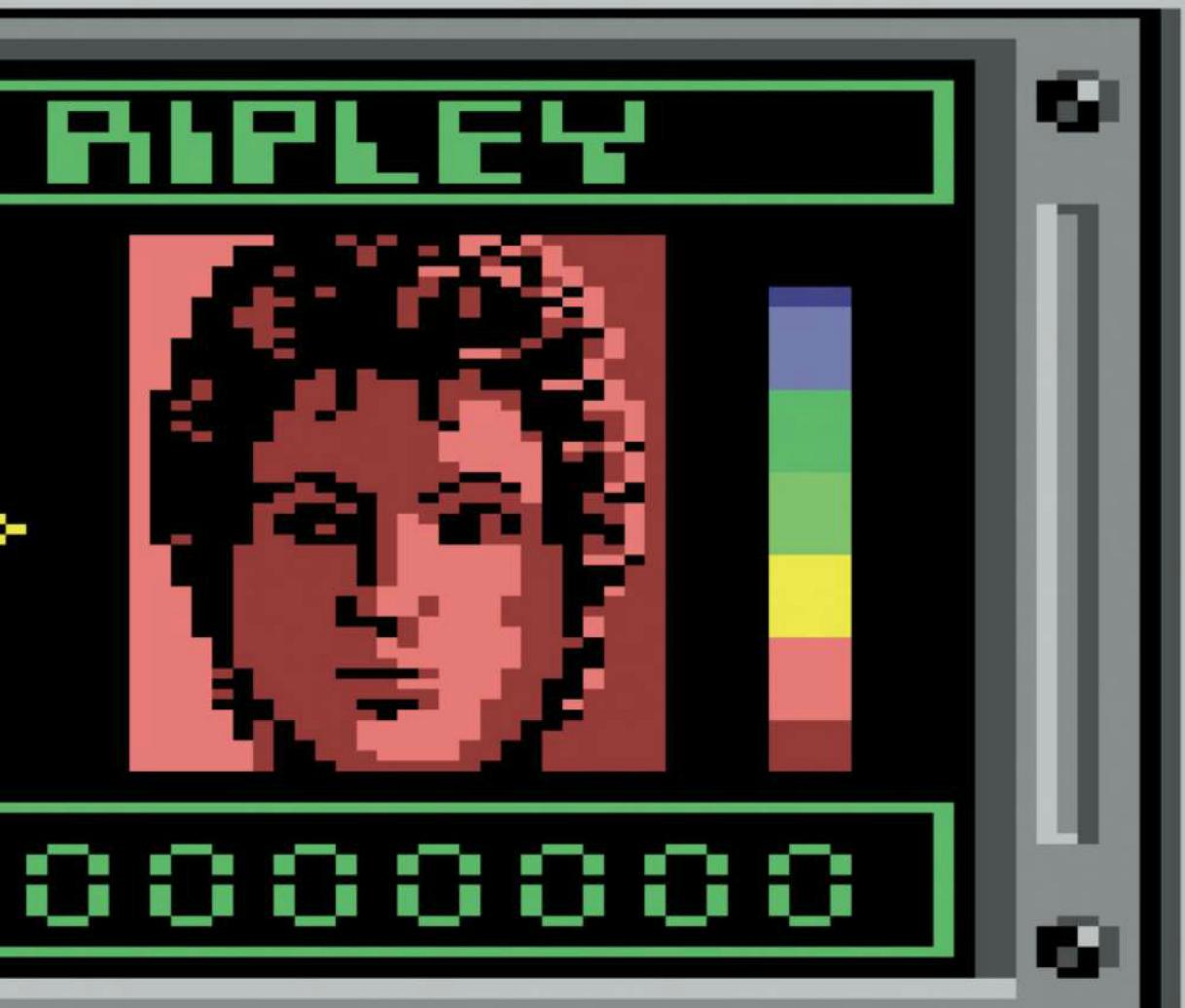
THE ULTIMATE ADVENTURE

OF SIR ARTHUR PENDRAGON

THE SPECTRUM HAD SABREMAN, ULTIMATE'S INTREPID ADVENTURER AND STAR OF FOUR CLASSIC GAMES, WHILE THE COMMODORE 64 HAD ITS OWN ULTIMATE HERO IN THE SLIGHTLY ODD SHAPE OF SIR ARTHUR PENDRAGON. SABREMAN WAS CREATED BY COMPANY FOUNDERS CHRIS AND TIM STAMPER, BUT WHO WAS BEHIND THE PENDRAGON GAMES? FOR THE FIRST TIME EVER, MARTYN CARROLL REVEALS THE MEN RESPONSIBLE AND FINDS OUT HOW THEY ENDED UP CREATING GAMES FOR THE UK'S MOST REVERED SOFTWARE HOUSE

» Dave Thomas, the hitherto unknown author of the Sir Arthur Pendragon games.

» Just how do you get past that Day-Glo vampire blocking the door? The first of *Kamath*'s many devious puzzles.

» Dave's first game was the incredibly tough shooter *Warlok*. "It was basically a rip-off of *Scramble*, which I'd seen in the arcades and loved playing," he says.

» The 1962 fantasy film *Jack The Giant Killer* was an obvious influence on *Karnath*. Compare the castle from the film to the game's loading screen.

Trying to uncover any inside information about Ultimate Play The Game is on a par with completing *Sabre Wulf* without losing a life. Basically you've got no hope. Such is the level of secrecy surrounding the developer that we'd swear that former employees signed gagging contracts under the threat of death by blunt spoon. No one is willing to talk, even now, more than 20 years after Ultimate became Rare and began to concentrate on console software. Questions such as what happened to *Mire Mare*, was *Knight Lore* really completed before *Sabre Wulf*, and who authored the later games like *Martianoids* and *Bubbler*, look set to remain unanswered.

The authorship of the six original Ultimate games for the C64 is also a mystery as none of the games carry credits. A breakthrough came in 2001 when a programmer named Manuel Caballero contacted the Ultimate Wurlde website (www.ultimate-wurlde.com) and revealed that he was the author of *Imhotep*. But who was behind *The Staff Of Kamath* and the other adventures starring Sir Arthur Pendragon? Fortunately the guilty parties left behind a small clue. If you managed to complete *Dragonskulle*, the fourth and final game, you'd find the following message: "This concludes the Pendragon adventure series, we hope you have enjoyed playing them, DT and RET 1985." Just who did these initials belong to? They didn't match up to any of the known Ultimate employees at the time.

The mystery was solved by Frank Gasking of Games That Weren't 64 (http://gtw64.retro-net.de) who noticed that the music to *Buggy Boy* on the C64 sounded similar to the *Dragonskulle* theme tune. And *Buggy Boy* was programmed by Dave Thomas with graphics by Robert (Bob) Thomas. The initials matched and it only took a few emails to track Dave down and receive confirmation that he and his brother Bob were indeed behind the Pendragon games. Better still, Dave did not fear death by spoon and was happy to be interviewed – even if he was slightly surprised by our interest.

"To be honest, I had no idea anyone was in the slightest bit interested in knowing that Bob and I were responsible for the Pendragon games," says Dave, when asked why he hadn't come forward before now. "This was 20-odd years ago and is ancient history as far as I'm concerned."

The story actually begins closer to 30 years ago, when Dave was studying computer sciences at college in Cheltenham in the early-Eighties. "It was around this time that the ZX80 was announced and I decided it would be very useful to aid my college studies so my parents bought me one," he remembers. "When it finally arrived I thought the thing was

"WE HAD A LOT OF FUN DOING THE PENDRAGON ADVENTURES AND FOUND THE STAMPERS TO BE GREAT TO WORK FOR. WE HAD A HUGE AMOUNT OF RESPECT FOR THEM AND THEY WERE ALWAYS VERY GENEROUS AND WARM PEOPLE" DAVE THOMAS

so dreadful I sent it back!" The unfortunate ZX80 was soon replaced by a more appealing Acorn Atom that older brother Bob stumped up the cash for. "It was on this system that I learned to code. Although I didn't get around to writing any games on the machine, it was instrumental in giving me a start in the career I've had to this day."

That career was kick-started in 1983 when Dave upgraded to a more advanced 6502 machine, the Atari 400, and created his first game. It was called *Warlok* and while it was a clear rip-off of Konami's *Scramble*, it would bag him a most unexpected windfall. "I discovered that a company called Calisto Software was running a competition to find the best original game and the winner would receive a cheque for £5,000. I decided to enter Warlok and a few weeks later was announced as the winner. I remember travelling to a swanky club in London's Grosvenor Square and receiving the cheque from Dave Lee Travis!"

In addition to a nice fat cheque, Birmingham-based Calisto offered Dave a particularly jammy job, which saw him travelling to America. "Calisto had some kind of tie-in with Adventure International

and its founder Scott Adams was looking for someone to convert one of his adventure games to the new Commodore 64. Calisto flew myself and another coder out to Orlando and we stayed with Scott and his family for around a month to complete the project. I honestly can't remember the name of the game we ported! On my return, I was told that the C64 was selling incredibly well in the UK and it would be worth converting my original Atari version of *Warlok* to it. I spent the next few weeks doing the conversion and hence my first C64 title was born."

Dave worked for Calisto for a while but he soon got fed up with the daily commute from his home in Cheltenham to Calisto's offices in Birmingham. "I decided to go back to developing games for myself," he says, and with his C64 skills sufficiently honed, he began to piece together the game that would become *The Staff Of Karnath*. "I'd had an idea in my mind about creating a pseudo-3D adventure game set in a castle which used a fixed perspective as though you were looking into a doll's house. I did some preliminary work on the engine for it and created the main character but my graphical skills at the time didn't extend to building the castle. However, my brother Bob

was a trained technical illustrator working for a local company that subcontracted work from the MOD. He'd frequently bring work home and I'd see him working on drawing up the insides of some missile or submarine on his drawing board. So he helped out with creating the castle rooms. We'd both seen an old film called *Jack The Giant Killer* and that influenced a lot of the visuals, especially the castle itself. I was also reading a lot of HP Lovecraft at the time and that had a bearing on the storyline of the game and the title, *The Staff Of Karnath*."

Taking control of Sir Arthur Pendragon (the adventurer's name was borrowed from the Black Prince Pendragon, the evil wizard from *Jack The Giant Killer*), the player had to explore the creepy castle and collect 16 pieces of a magical pentagram while avoiding various energy-sapping nasties. But it wasn't just a case of using quick reflexes to grab the piece before you got zapped, as in most cases you had to solve a tricky puzzle to make the piece appear in the first place. These cerebral elements were drawn from Dave's work for Adventure International. "The AI games were purely text with static images and we wanted to create something that was more visually tangible so you could actually see the result of 'moving the stone' or 'throwing the lever'."

As the game approached completion, the brothers started to consider potential publishers and they were thinking big. Bigger than Calisto at least. "We thought about showing it to Ultimate but never really dreamt that the Stampers would be interested, given their almost legendary status even then. We

LONE RIDER
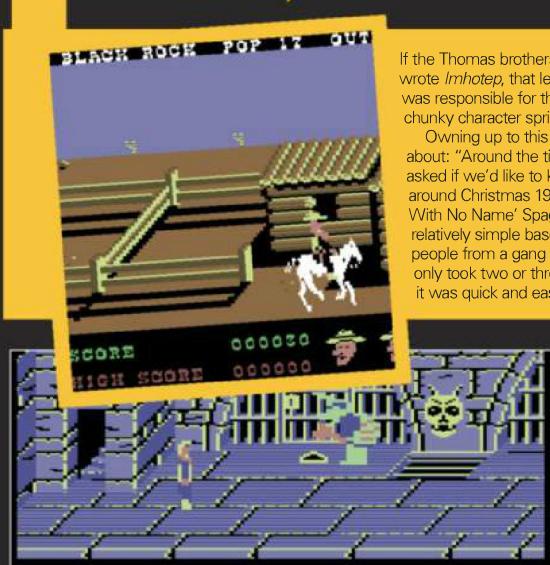
If the Thomas brothers created the Pendragon games, and Manuel Caballero wrote *Imhotep*, that leaves one of Ultimate's C64 games outstanding. Who was responsible for the arcade shooter *Outlaws*? Hang on a second – those chunky character sprites sure look familiar…

Owning up to this Western-themed misfire, Dave reveals how it came about: "Around the time that *Dragonskulle* was finished, Bob and I were asked if we'd like to knock out another quick game that was to be released around Christmas 1985. We were both into the old Clint Eastwood 'Man With No Name' Spaghetti Westerns so we decided to do something relatively simple based around a lone rider freeing some poor hapless people from a gang of vicious outlaws – another highly original concept! It only took two or three weeks and it didn't sell very well as I remember, but it was quick and easy money."

» In *Blackwyche*, Sir Arthur ditches his sports casual clothing for a dubious-looking cape. He also appears to be sporting a full and hearty moustache!

» Here's the trophy that schoolboys Lee Goldstone and Matthew Porter won for submitting the first *Staff Of Karnath* solution to *Personal Computer Games* mag.

» Oh mummy! Various creatures inhabit the tomb's corridors, sapping your precious strength.

"MY BROTHER AND I WERE A BIT EMBARRASSED TO SHOW [TIM STAMPER] IN AS WE WERE BOTH WORKING IN OUR PARENTS' ATTIC AT THE TIME. WE NEEDN'T HAVE BEEN THOUGH AS IT LATER TURNED OUT THAT TIM AND HIS BROTHER CHRIS WERE WORKING FROM THEIR PARENTS' ATTIC TOO"
DAVE THOMAS

really thought *Karnath* looked very nice and might be something they'd be interested in, though we were under no illusions that what we had created was of the same quality and general slickness of Ultimate's Spectrum games. We had nothing to lose so we gave it a shot. We rang Ultimate and Tim Stamper arranged to come down and see the game. The following day a Porsche 911 Turbo turned up outside the door with Tim and his then-fiancée Carole Ward inside. My brother and I were a bit embarrassed to show them in as we were both working in our parents' attic at the time. We needn't have been though as it later turned out that Tim and his brother Chris were working from their parents' attic

too! Tim was impressed with the game and immediately offered us a deal to produce a series of four Arthur Pendragon games on the spot."

The deal was done and Bob decided to jack in his job and join his brother in a partnership to produce the games for Ultimate – Bob created the graphics while Dave wrote the code. Despite being well-known perfectionists, the Stampers did not request any changes to *Karnath*. "They very much left it up to us to complete the game how we wanted to," says Dave. "I don't remember any interference from them on any level. We just handed the game over when it was complete, it was given a bit of QA and then released." The only stipulation was that their names were not revealed. "The Stampers didn't allow anyone to get credits on any of the original games they produced. This was strictly part of the deal and at the time we were so pleased to have got the deal we didn't really care. It did become a source of frustration later on in the series, hence why

I sneaked those initials onto the last game."

The Staff Of Karnath debuted on the C64 in December 1984 and was a solid hit, selling more than 40,000 copies on its initial release. It also received excellent reviews from the magazines of the day, with *Personal Computer Games* awarding it a rating of 9/10 and calling it "a beautiful game that more than lives up to expectations". Work on the sequels started immediately and all three followed within 12 months of the original. The first, *Entombed*, saw Sir Arthur trapped inside a doom-filled temple – and he was even given a whip to complete the Indiana Jones homage. "*Entombed* took the longest to create as I decided to re-code the original *Karnath* engine to allow for a much bigger area to explore. This was subsequently used in *Blackwyche* and *Dragonskulle*."

Blackwyche took place on a ghostly galleon, which was inspired by the HMS Victory moored in Portsmouth. "We'd seen it featured on TV and decided that a ship would be a good place for the third adventure.

» As with all early Ultimate games, the memorable cover art was drawn by Tim Stamper. He based the images on the rough plot outlines provided by Dave.

REMEMBER WHEN...

YOU FINALLY DESTROYED THE STAFF OF KARNATH?
Having collected all 16 pieces of the pentagram, you'd negotiate the castle crypt one last time and blast that bothersome staff with your Menhir spell. Cue flashing colours and whizzing sounds and a rather lacklustre 'congratulations' message that could not dampen the warm glow of satisfaction.

Bob and I went down to Portsmouth and had a good look around the ship, taking lots of photographs that we could use to base some of the graphics on." *Dragonskulle*, the final game, transported Sir Arthur to a deadly island loosely based on Skull Island from *King Kong*. "We had loads of these sorts of films on tape," he says. "Anything fantasy, science fiction or horror really. We watched lots of stuff to get ideas for the puzzles and visuals in the games."

Released during summer 1985, *Entombed* was a critical hit, earning a 93% rating and a coveted Gold Medal award from *Zzap!64* magazine, but both *Blackwyche*

and *Dragonskulle* were slated for being too similar to the previous games. "Given the great reviews that we had for *Entombed* we felt there was little point in changing the successful formula," admits Dave. "So we were very disappointed with the reviews for the later games. *Dragonskulle* in particular had dreadful reviews, which was a big surprise to all of us as both the Stampers and ourselves thought this was the best of the four adventures. Looking back now I can see why *Entombed* was generally considered to be the best entry. I have a great affinity with all things Egyptian and Egypt is a country I have visited many times. I think for this reason I probably had a lot more enthusiasm for creating *Entombed* than the others and that may have been reflected in the reviews."

Sales tailed off too and in the end *Karnath* sold as many copies as the three sequels combined. This didn't bode well for the brothers as they received a cut of each copy sold rather than any advance payment. They did reap some rewards from *Karnath* but they weren't about to join Tim in the 911 Turbo club. "We certainly didn't earn the vast sums that were being bandied about at the time. I do remember buying my first car out of the initial royalty payment though – a Fiesta XR2 – so we were hardly into Porsche territory as you can tell!"

Following the release of *Dragonskulle*, the Stampers asked Dave and Bob if they wanted to develop games for their new target platform – the Nintendo Entertainment System. Over the next 18 months the pair

sussed out the system and created various tech demos but nothing was given the green light. With no product there was no payment so they parted company with Ultimate. "We had a lot of fun doing the Pendragon adventures and found the Stampers to be great to work for during this time. We had a huge amount of respect for them and they were always very generous and warm people. This changed though when we moved onto the NES and we became increasingly frustrated with them. Who knows what we might have achieved had we been able to produce that initial NES game."

Undeterred, the pair retrained their sights on the Commodore 64, determined to make another game for the system. "We met up with Elite boss Steve Wilcox and he gave us *Buggy Boy*," says Dave. "I think this was a reluctant decision on his part as he felt that we'd been away from the Commodore 64 for so long that we may have 'lost touch'. Anyway, we got some excellent reviews when it was released and hence started our relationship with Elite."

Live And Let Die and *First Strike* quickly followed, and while both were great games, it's the fantastic Commodore 64 version of *Buggy Boy* that they're best remembered for. Or at least it was, because now that the mystery has been solved and their story has been told we can finally credit Dave and Bob Thomas with creating the truly excellent adventures of Sir Arthur Pendragon. And with that, they've become part of the legend that is Ultimate Play The Game.

» The exit to the tomb is located in the room where you begin. Unfortunately there's a bloody great statue blocking the way. Time to get *Entombed*.

FAMILY TREE

THE STAFF OF KARNATH

Ultimate's C64 debut was eagerly anticipated and didn't disappoint. It looked fantastic for a start, with those slick pseudo-3D backgrounds splashed with dazzling colours and filled with chunky character sprites. The puzzles were difficult and ever so devious, which made solving them all the more rewarding. On the downside, having to deliver each piece of the pentagram to the altar led to lots of weary backtracking, and the random nature of Sir Arthur's many spells resulted in too much trial and error, but overall *Karnath* was an arcade adventure for C64 owners to treasure.

ENTOMBED

The sequel did everything that a decent follow-up should. It was much bigger – the tomb Sir Arthur had to escape from was spread over seven floors – and the gameplay was updated so there was less backtracking and the unwieldy spell system was replaced with a single weapon (a trusty whip). And thanks to the game's richly-detailed setting, the air-starved chambers and maze-like corridors that you had to explore were dripping with ambience. But make no mistake, it was a tough challenge and the puzzles were even more taxing than before. Perhaps a little too taxing.

No.1

No.2

BLACKWYCHE

If *Entombed* was a whip-cracking leap forward from *Karnath*, *Blackwyche* was more of a peg-legged shuffle to the side. And while it wasn't as bad as the scathing review in *Zzap!64* made out – the game scored 53% but it was just as polished and as playable as its 93%-scoring predecessor – there was a definite sense of déjà vu hanging over the proceedings. *Blackwyche* should be praised though for lowering the difficulty level. The puzzles were easier – and dare we say it, logical – meaning that more players could realistically complete the game without cheating.

DRAGONSKULLE

Being the fourth game in an increasingly similar series, *Dragonskulle* was overlooked by many. Which was a shame, as the final Pendragon adventure did at least introduce some fresh ideas. Instead of individual 'rooms' where you solved puzzles, the game featured a sprawling map with different types of rooms showing up again and again. In some you'd be blasting dragons, in others you'd be digging up graves, and so on. The emphasis was on exploring rather than puzzle solving, but getting lost in the series of similar-looking caves just wasn't that much fun.

No.3

No.4

WHAT HAPPENED NEXT...

The working relationship between the Thomas's and the Stampers didn't end with the release of *Dragonskulle*. In the late-Eighties they returned to Ultimate (who'd since become Rare) and ported the arcade games *NARC* and *Arch Rivals* to the NES. They then moved to Ocean and worked on several more NES conversions. The final project they worked on as a partnership was the brilliantly titled but awful PC game *Guts 'N' Garters In DNA Danger* for Ocean. Following its release in 1997, Bob became a freelance web developer while Dave turned his hand to online and mobile games. His most recent release was *Crystal Quest*, an update of the arcade shooter that appeared on the Apple Mac in 1987.

> ❝ **For composing, the Commodore 64 was my first instrument. You could think of sounds that didn't exist and then create them!** ❞
>
> *Ben thinks outside the beige breadbin*

FAMOUS FOR	BESTSELLING GAME
SID music	I've no idea!
FIRST JOB	**BEST HOLIDAY**
Golf caddy	18th birthday party at a campsite in Paris. That was a pretty wicked holiday.
CURRENT JOB	
Musician and programmer	
FAVOURITE FILM	**WHO YOU WANT TO BE STRANDED WITH**
The Magnificent Seven	Saying the wife and kids is too boring, so I'll have Joe Zawinul, the keyboard player for Weather Report. The only man to have played with Miles Davis and the Hitler Youth Group.
FAVOURITE ALBUM	
Domino Theory by Weather Report	
FIRST COMPUTER	
C64	
BEST GAMING ACHIEVEMENT	
The Trap demo	

ISLAND

145235·46746546546546

SEX	NAME
M	Ben Daglish
DATE OF BIRTH	**PLACE OF BIRTH**
31 JUL 1966	London

BIOGRAPHY

An accomplished multi-instrumentalist, Ben combined his love of music and maths to produce soundtracks for hundreds of C64 and Amiga games. You can still hear him playing them live with his band Stuck In D'80s.

Ben Daglish

What cherished games would you take to the island?

Ben Daglish provided the soundtrack to your 8-bit youth, creating hundreds of memorable tunes for the Commodore 64. Here he tells Paul Drury about music, mushrooms and making the SID sing
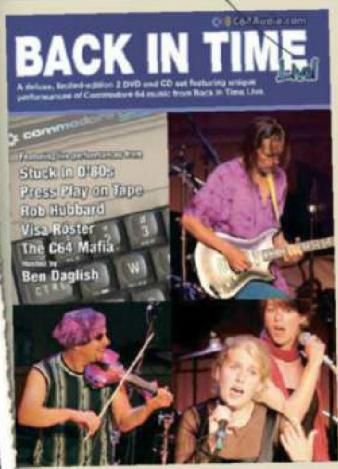
"The inspiration for my music?" muses Ben Daglish, drawing hard on a reflective roll-up. "Does it sound good? You're walking down the street and you go, 'Boo-de-de-boo… Yeah, that sounds cool. What chords is that?' Every time I wander past the piano, I'll play a couple of random chords and…"

Ben jumps out of his seat, sticks the fag in the corner of his mouth, flicks back his hair and bangs his bony fingers down on the keys of the nearby upright piano. "Oooh, that's a nice little sequence," he grins, and he's off into the music of his mind.

To say music is an integral part of Ben's life is something of an understatement. The walls of his charming Derbyshire home are adorned with all sorts of weird and wonderful instruments, which he'll often grab nonchalantly and begin strumming, beating or blowing. Our interview is frequently punctuated by him bursting into scat versions of different game tunes, whether the inescapable *Tetris* song or something from his own illustrious back catalogue of videogame music. That's why we're here, of course. Even if you don't recognise the name Ben Daglish, those of you who had a C64 in the Eighties will almost inevitably have blasted, bounced or burrowed to Ben's rhythm.

"For composing on, the Commodore 64 was my first instrument," he smiles. "It was the first time I was able to do stuff that was more than I could purely conceive in my head. I could think of something that I couldn't play… and then play it! You could think of sounds that didn't exist and then create them! You could break out of just what you could do with your fingers. People would ask me back then if the SID chip

had been pushed as far as it could go. Well, has the flute? Has the piano?"

For Ben, the trusty 64 was not just a machine to re-interpret tunes; it was a unique musical instrument in itself. The wonderful Sound Interface Device chip inside the beige beast was pulsing with possibilities, and Ben was going to make it sing. Yet his musical upbringing was considerably more traditional. His parents ran a folk club in Ealing and the legendary singer Martin Carthy once bounced Baby Ben on his knee between sets in the mid-Sixties. The family left London while Ben was still in nappies and moved to Stannington near Sheffield. There, among the hills of the Peak District, his mother taught him how to play penny whistle, and his precocious musical talent began to grow. Folk, jazz and classical music was the soundtrack to his childhood, until the intervention of secondary school classmate Diane Mayers.

"She came up to me and said, ''Ere, you play drums, don't you?'," recalls Ben. "My main study was orchestral percussion. So she thrust this Walkman at me and it was playing Led Zeppelin's *Moby Dick* with Jon Bonham's live drum solo. Up to that point I was a short-haired academic little boy into classical music and studying. Six months later I had hair halfway down my back and was hanging out with all the rockers, participating in all those things you did in the Eighties…"
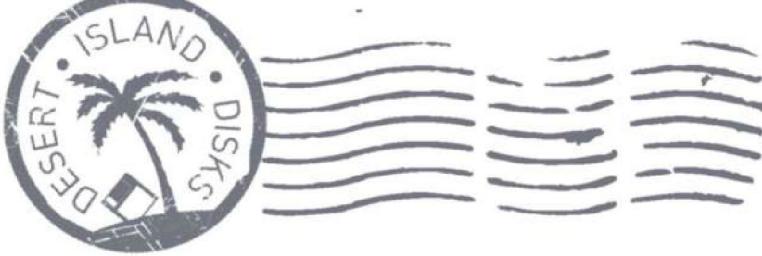
Bless you, Diane, though the influence of another schoolmate would have an even greater bearing on Ben's future direction. In the year above him was one Tony Crowther, a name familiar to Commodore gamers everywhere as the creator of *Blagger*, *Monty Mole* and *Captive*, although at this stage he was still tapping out simple programs on the school's BBC Micro. And that was partly thanks to Ben…

"I won a BBC computer for the school by writing this essay on how computers could be used in schools in the future," explains Ben in a high-pitched geek voice. "I wrote a page and a half of crap and was amazed that a few months later, this 16K BBC Model A arrived. It was the only one in school and they kept it in the library. Because I'd won it, I was allowed to come in at lunchtime and play on it. So was Tony, because the bloke who ran the library knew Tony had already started mucking about with computers…"

The librarian-cum-software publishing entrepreneur was a chap called Ian Warby, who proceeded to recruit a select crew of schoolboy coders and released their output under the banner of Aztec Games. "We must have done 20-odd titles

Trivia

Ben recently did an interview for the Wii Channel, declaring his love of Impossible Mission on the Virtual Console. Nintendo sent him a Wii for his trouble.

BACK IN TIME

A deluxe, limited-edition 2 DVD and CD set featuring unique performances of Commodore 64 music from Back In Time Live

Featuring performances of:
Stuck in D'80s
Press Play on Tape
Rob Hubbard
Visa Roster
The C64 Mafia
Hosted by
Ben Daglish

Ben in action

» Bullet hell in *Hades Nebula* to one of Ben's banging tunes.

If you see SID, tell him...

"Rob Hubbard was the best, obviously," says Ben without hesitation when asked to rate his fellow C64 maestros. "He invented what you could do with the SID. He was always ahead. He was older than us and had toured the world as a keyboardist. He had the musical and the programming ability. I remember when he came to work with me on *Monty*: he had this secret two hours where he put our music together with his driver. There was this thing about 'Rob's driver'. No one saw it or how it worked. He was absolute top and then Martin Galway at number two. He was very good but he didn't really socialise. He only did stuff for Ocean whereas the rest of us were freelance and met up with each other. At one point in the mid-Eighties, Rob, David Whittaker and I were talking about becoming a unified force and setting up a company to do all the game music for every developer in England. Martin said he wasn't interested. He was happy to sit in his concrete bunker in Manchester doing his own thing. I thought he'd got a bit of a problem. I only really got to chat to him properly about four years ago at a Bit Live event and suddenly found out what a lovely, unassuming bloke he is. Oh and getting pissed with Dave was always an education."

For more on the wonderfully vibrant world of SID music, see **www.hvsc.c64.org** for those original tunes and then visit **www.c64audio.com** or **www.remix64.com** to hear clever things people have done with them. Plus look out for an in-depth feature in a forthcoming issue of **Retro Gamer**.

and they sold loads," says Ben. "Almost every school in the country had something from us. We never made any money ourselves, but every six months, Ian would take us all out for a slap-up meal at the local steak house."

This *Beano*-like arrangement may not have delivered immediate rewards beyond a full stomach, but it did give Tony and Ben a taste of the emerging software industry. Thus when Ben dropped out of a degree in maths and computing at Essex University, bored of doing "Noddy little Pascal programs", he discovered that his old mate Tony was producing full commercial releases for Alligata and in need of a little musical assistance.

"Tony asked if I could do him a death march for *Potty Pigeon*," remembers Ben. "Then he wanted Jean Michel Jarre's *Equinoxe 5* for *Loco*. He'd write the driver and I'd type in the notes. I enjoyed doing it but it was when I heard the version of *English Country Garden* on Jeff Minter's *Hover Bovver*, the lovely job they'd done with just three voices, that I thought 'Ooh, you can do interesting stuff with this thing…'"

The boys got busy and after a week of working through the night, fuelled by coffee and Thousand Island dressing sandwiches, they had put together a demo showcasing their efforts. The WEMUSIC sampler – the convenient acronym stands for 'We Make Use of Sound In Computers' – was duly distributed on 5¼-inch floppy disk to various software houses, taken to computer shows and uploaded to the proto-web service Compunet, and very soon the phone started ringing.

"I'd get calls from Gremlin, BT Firebird, Alligata, of course," remembers Ben. "Early on I'd be like, 'Ooh yeah, can I come and see a demo?' I'd go to the office, see the game in development, talk to the programmers. Other times, I'd do

it without seeing the game. 'You want generic martial arts music? For the day after tomorrow? There you go…'"

Which reminds us of his work on *The Last Ninja*, particularly the memorable and much-remixed Wastelands theme. The music seems to complement the on-screen action so beautifully that surely he was intimately involved in the game's development?

"No, that was all done on the phone," laughs Ben, "though there was quite a lot of talking, if I recall. Mark Cale [head of System 3] was pretty specific about what he wanted and he wanted a lot. I did half and Anthony [Lees] did half. Mark would say, 'We've got this level and this happens.' I think I saw some graphics too but not a demo and I think I spoke to the programmer John Twiddy, too. The main task after doing the music was integrating Tony's driver code into the game. He'd done a lot of work getting his code as small, as fast and as tight as possible. It was all about raster time; how much CPU time you could take up. I turned up in London with the disks and played around with the programmer for a day getting it to all work. Then Mark turned to me and said, 'So how much do you want for this?' I think I was charging a grand or two. He said, 'I'll give you my BMW.' He had this dodgy left-hand drive he'd brought into the country under dubious circumstances. I later found out that was fairly typical of how he did business…"

Ben wisely decided to take cash instead. Indeed, the readies were rolling in through the second half of the Eighties, with Ben estimating he contributed music and sound effects to over 200 titles, charging anywhere between a hundred and a thousand pounds a time. "An average job would be intro music, tunes for five levels, 30 sound effects and a death tune. I'd do that for £500, which was a week's work

Trivia

Up to the age of 14, Ben's musical tastes were folk, jazz and classical. It was Tony Crowther who introduced him to the joys of Jean Michel Jarre and the Yellow Magic Orchestra.

Timeline

| 1984 | 1984 | 1987 | 1987 |

POTTY PIGEON
■ **YEAR:** 1984
■ **VERSION:** C64
Ben's first game music was the death march theme that accompanied your demise in Tony Crowther's feathery take on *Defender*.

LOCO
■ **YEAR:** 1984
■ **VERSION:** C64
This excellent version of Jean Michel Jarre's *Equinoxe 5* first brought Ben's talents to the attention of the games press.

KETTLE
■ **YEAR:** 1987
■ **VERSION:** C64
Ben assures us that this demented take on *Polly Put The Kettle On* was not inspired by any funny mushrooms in the teapot.

THING BOUNCES BACK
■ **YEAR:** 1987
■ **VERSION:** C64
Ben based the music for this sequel on Rob Hubbard's work on the original *Thing On A Spring* and was particularly chuffed to get the boing right.

The Team On Daglish

Here's what **Retro Gamer** has to say about Ben's compositions…

Darran Jones
Not owning a C64 when I was a child meant that the only times I heard Ben's work was when I was over a friend's house. That all changed, however, when forum member Markopoloman played a CD of his greatest hits on the way back from the last Retro Fusion event. Even now I can't work out how he made the C64 sing, but I'm glad he did.

Paul Drury
Try playing a game with the sound off. It's just not the same, is it? Growing up as I did with the C64, Ben's work is inextricably linked with so many great gaming memories, yet his musicianship means those tunes stand up on their own merits. And you must witness him playing live. He really does put the 'mentalist' into 'multi-instrumentalist'…
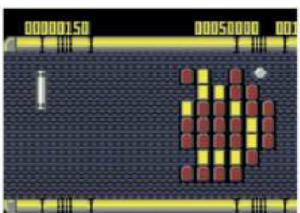
Stuart Hunt
Music in videogames can easily play second fiddle (pun intended) to the glitz of great graphics, but soundtracks play a vital role in helping to create a tangible atmosphere in games. Ben produced music for two of my favourites: *Switchblade* and *Kettle*. And I think Ben's compositions complemented the themes, visuals and gameplay of these games brilliantly.

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or sometimes a day's," he grins. "Sound effects were a pain in the arse. Piddly f**king 'booo' – there you go. Then they'd say, 'No, we want it a bit more atmospheric.' Christ…"

Ben grimaces before gurgling through some more of his best spot sounds. He openly acknowledges that he can't remember half the work on his long list of credits, partly because he was never told the name of the game in the first place, but he does recall fondly some of his collaborations with Tony.

"Tony is the most naturally gifted programmer I've ever known, and I've known a lot," he smiles. "*Trap* was the classic one. I saw the game from its conception. We had this idea of putting in the demo at the end. The idea was always to hide it away but then it turned into this ten-minute opus. Possibly it was a shame that it was hidden away but then it was a good reward for finishing the game. *William Wobbler* was another one. That was the first time I did a separate soundtrack for a cassette, using an early Korg synth. An ultra-bouncy tune that went so well with the movement of the character…"

And he's up at the piano again, banging out the jaunty tune and thrusting his chin back and forth like Quagmire from *Family Guy*. Those were heady days indeed and none more so than when he got to collaborate with one of his heroes.

"I was doing the music for *Auf Wiedersehen Monty* for Gremlin and as Rob Hubbard had done the original, they thought it would be nice to have him come in on it too. Rob's just the best and I felt completely unworthy. I had this little office and we just crammed in it and jammed on the keyboards for three days. I don't remember sleeping. Jammed, drank and toked… and magically this piece appeared."

By this stage, Ben had become the in-house music man at Gremlin, lured away from freelancing with the promise of his own studio, an Atari ST and the best musical gadgets 1986 had to offer. He got to work with such talented programmers as Colin '*Fungus The Bogeyman*' Dooley, Shaun Hollingsworth and Pete Harrap, and he talks fondly of his soundtracks for *Federation Of Free Traders*, *Dark Fusion* and *Cobra*.

"We were the Gremlin lads, getting pissed every night at the pub across the road," laughs Ben, "and it was great… for a year. You can tell with the music when it becomes a job, writing stuff by rote rather than being inspired. The company had grown, there was a lot of work and I was handling it all. I was knocking them out. When I was knocking them out ten at night till four in the morning it still felt creative and

> ## "People would ask me if the SID chip had been pushed as far as it could go. Well, has the flute?"
> *The C64: the 8-bit that keeps giving…*

> ## Daglish on Daglish

We asked Ben to pick his three favourite tunes from his extensive repertoire of game music

■ THE LAST NINJA: THE WASTELANDS
I've always been amazed by the reaction it's had. I think it's because all the bits come together really nicely. I find it heartening that people see the point of the tunes out of context, listening to them not as they're playing the game.

■ TRAP
Because of the orchestration. I got timps, a string section… When Chris [Abbot] arranged it as an orchestral piece, it was a good one! My biggest, hardest, longest piece, as it were. I wrote a nine-voice arrangement and Tony [Crowther] used the joystick ports to synchronise the C64s.
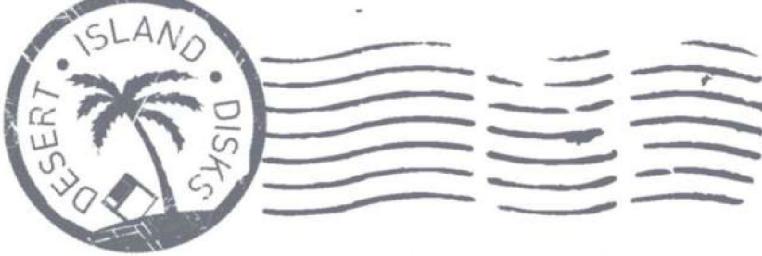
■ DEFLEKTOR
A corking bit of rock with great cowbell. That was the reason it came out as it did. I'd discovered how to do this really good cowbell sound.

There must be a good 20 remixes out there. I love the dub reggae one, and Reyn's [Ouwehand] version with the 'Day Ons' is beautifully done.

Ben regales us with another from his instrument collection
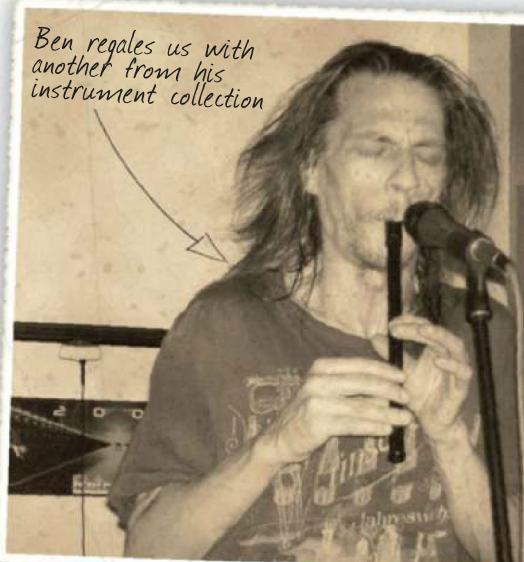
Readers' Questions

■ Drewbar: For me, The Wastelands from *The Last Ninja* is the peak of C64 music. Where did the inspiration for this sound come from?
From the Orient! [laughs] A famous composer once said it was nothing to do with visual inspiration, like seeing a beautiful sunset or something. Music's a completely separate thing. The inspiration for music is simply 'Does it sound good?'

■ Necronom: Which SID tune by someone else is your favourite?
My favourite ever was *Masters Of Magic*, which I thought was Rob. [Ben jumps up and starts playing it] I only learned recently that he'd ripped it off from some American soundtrack composer from the mid-Eighties, which I was most disappointed by. He did a brilliant arrangement anyway.

■ Doddsy: Do you ever wish some dance act would nick one of your riffs?
F*ck no. Actually a bit of *Last Ninja* got used on a record by DragonForce. He took the guitar solo note for note. I get 20p per album or something. I don't think they sold enough to cover the postage but yeah, they asked our permission. I get lots of people asking me if they can use a bit of my music in things so if a dance act wants to, then fine, but I'm not sitting waiting in hope.

■ Northway: Seriously, what did you put in the teapot when you did the music for *Kettle*?
I did do a lot of mushrooms at school but it was just hash in those days. You can't compose when you're tripping out your face. Well, you can and you think it sounds wonderful when it's actually shit. Drugs contribute to my general outlook on life but I've never written better stoned or not stoned. And yeah, I've tried both ways.

■ DRS: Have you ever considered going back into programming game music?
As soon as you could stream real music from a CD, that was the end of the programming side of game music. As soon as sampling came in with the Amiga, that's when the rot set in. Actually, I'm currently involved in a project with Jon Hare called Sensible Soundware. We'll be distributing various bits of music we've both done, old and new. Not necessarily just games music but stuff associated with it from our time in the industry.

■ The Master: Who is your favourite Doctor Who?
Got to be Tom Baker. That question is really, 'Who was Doctor Who when you were 12?' isn't it? And the best that never was, Brian Blessed!

» *Firelord* benefited hugely from Ben's atmospheric score.

» *William Wobbler* was one of many collaborations Ben did with old mate Tony Crowther.

bohemian, but now it was trying to do it nine to five… I found I was going home at night and not listening to music. Plus I didn't like working in an office. Suddenly, there were all these blokes in suits talking about shipping boxes and they'd no idea what was in the box. It turned into a business and I didn't enjoy it any more."

Feeling his creativity was being stifled and not enjoying the new corporate ethos at Gremlin, he left the company, but he didn't quite leave game development just yet.

"This is hidden history," winks Ben. "There's nothing on the net about this." He lights another roll-up and proceeds to tell us the strange tale of lost arcade game *Septima*.

"A complete chancer called Stuart Firth managed to con a machine from Silicon Graphics, this big projector system off some other company and borrowed money from here, there and everywhere, with this crazy idea to build an arcade game. It had a big semi-circular console with up to seven players shooting guns at a screen the size of this wall. Spaceships were coming out of the screen at you and you had to blast them, like 3D *Space Invaders*, basically. I remember doing the soundtrack in Wales with a studio engineer that used to be in T'Pau. Anyway, we had it running in an arcade in Portsmouth in a cubicle the size of this room for a couple of weeks in about 1988 or '89 and we showed it at a trade show in Blackpool. Sega loved it and wanted to buy it. They bought the prototype from us and some of us went over to Japan for evaluation. Sega said, 'Lovely. We'll have a hundred,' and we thought, 'That's it, our fortune is made!' Then suddenly they said, 'No thanks, we don't want it.' The money they'd paid for the prototype just about paid off our debts, but we had no money to build another one. We were stuffed. Two or three years later I saw a game by one of Sega's subsidiaries: a four or five-player shooting game almost exactly the same. Stuart

"We jammed, drank and toked for three days and this piece appeared"

Ben explains how to mix business and pleasure

was trying to get a court case together for ages but it didn't come to anything…"

Thoroughly disillusioned, Ben left games and began doing music for theatre with his partner, Sarah. He briefly rejoined the fold in 1992, working on 16-bit RPG *Legends Of Valour*. This was followed in 1997 by considerable input from Ben and Sarah on witty adventure *Touche* for US Gold. The company was duly impressed and was very interested in an idea he and Sarah pitched for a point-and-click adventure called *Gadzooks!*, set in Elizabethan London, until a buyout by Eidos abruptly ended the project. Ben now earns a crust through numerous musical enterprises and web design work, and thanks to his involvement in the Back in Time events and the marvellous SID'80s, who do stirring live versions of old game music including his own, he is a familiar face at 8-bit musical events.

"When I was writing those tunes, in my head I was writing for a rock band or string quartet and making the best arrangement I could on the C64, so to have them performed by rock bands is great. Playing live to my constituency – 50-year-old folkies and 30-year-old geeks! And I am King Geek!"

We'll see you all down the front at a gig soon, then. All hail to the king…

Ben Daglish's
Desert Island Disks

01 Master Of The Lamps C64

Top game, great music and I liked the whole concept. A level of flying through the rings and then a level of the genie coming out of his lamp, smoking his bong. The first lot of 14 levels were colours and sounds, the next lot were just the colours and the next just the sounds. I was one of the few people who could complete it because I could remember the sequence of eight notes and play the bubbles like a keyboard.

02 Fable XBOX

I was very impressed watching *Fable*. I didn't play it that much but I watched the kids playing it a lot and it's just beautiful. Did they choose good or evil? Both! They played it through twice and I think they liked being bad most. A great game. Really lovely.

03 Doom PC

We'd all played around with 3D engines but *Doom* was the first that really made you go, 'Woah, this is the future of computer gaming.' And to be honest it still is the future. We haven't really come on a long way since. *Quake*, *Halo*... they're all really *Doom*, aren't they?

The games that Ben just couldn't live without and why he loves them

04 Planetoids BBC

All those Acornsoft games were spot-on. The *Pac-Man* was great and this *Defender* clone was perfect. Swish, lovely... I spent hours, days, weeks playing this. Stunning. In terms of the accuracy it was a beautiful bit of programming.

05 Day Of The Tentacle PC

I liked all those LucasArts games but *Day Of The Tentacle* in particular. That was the one. Cracking plot and great clues. This is just the ultimate point-and-click adventure.

06 The Sentinel C64

The pillars, the hills, what was it called... ah yes, *The Sentinel*! Killer idea, killer everything.

Completely original. I've often talked of the lack of originality in the professional games market. You do get lots of originality on the net with people making their own little Flash games. Bizarre stuff is coming back in!

07 Impossible Mission C64

Always liked this. It's the one I was interviewed about for the Wii Channel. Those lovely running man graphics. The first running person that really looked like he was running before *Prince Of Persia* and stuff came along. The animation just made us go 'Wow!' We could sit and watch him run around for ages. Stay a while, stay forever!

08 Tetris GB

Because it goes ding, ding-ding-ding, ding-ding-ding, ding, ding, ding... for years! One of the few games that even now, ten years later, I can dig out a Game Boy, stick some batteries in, turn it on and I'm right there. I can play it all the way to the end, see the spaceship going off and the guys doing the legs. Yeah, *Tetris*!
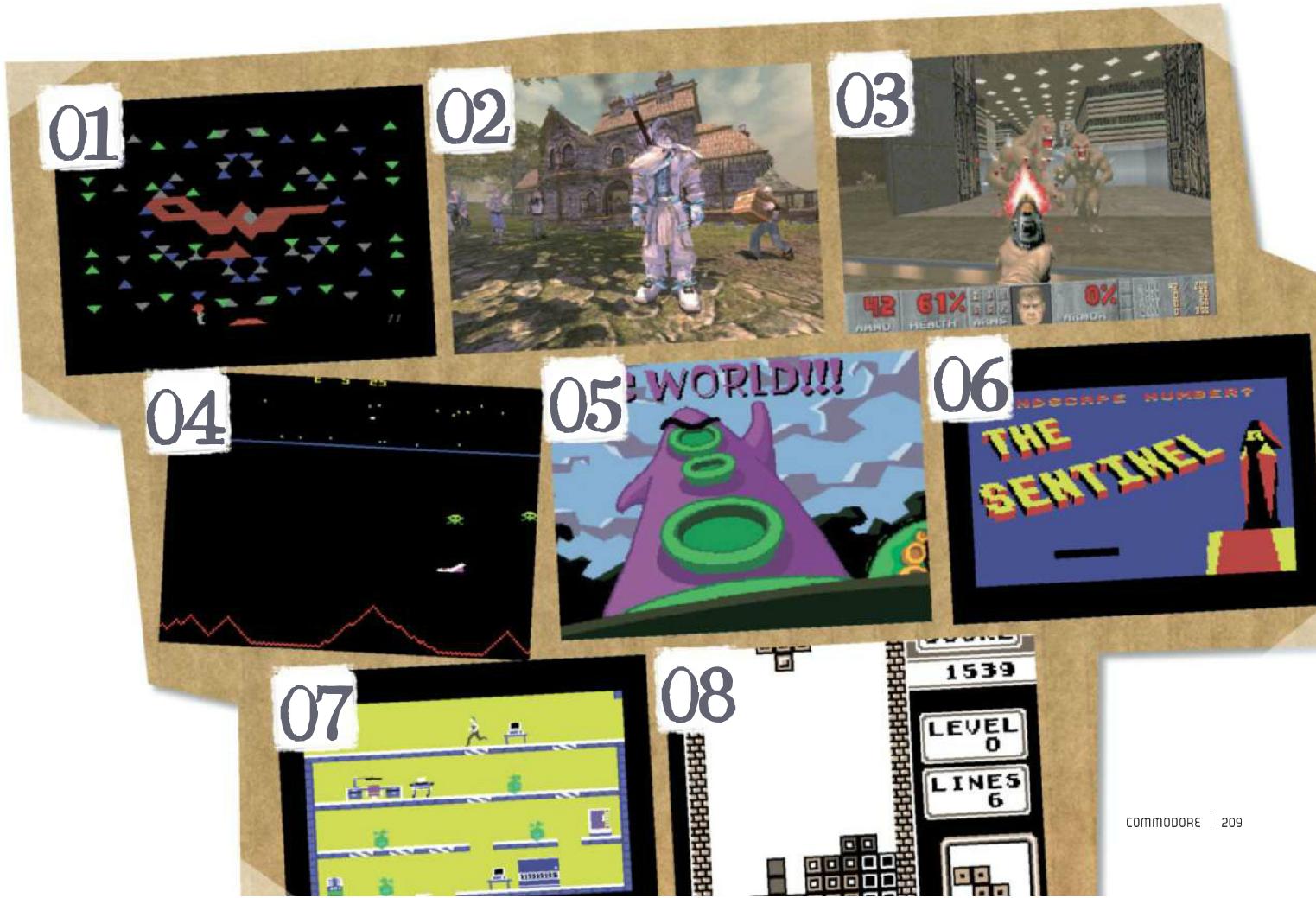
FROM THE ARCHIVES

RETRO GAMER DIGS UP THE FILES OF THE CLASSIC COMPANIES OF OLD

First Star Software

Despite bringing C64 hits Boulder Dash and Spy vs Spy to the world, First Star Software was almost extinguished in the early Nineties. Today, it's muscling its way back in, as Craig Grannell discovers

Two independent film producers running a fledgling videogames company have just turned down a quarter of a million dollars. This, perhaps surprisingly, will prove in the long run to be a shrewd financial decision, and not, as it might seem on the face of it, crazy. 1982 is turning out to be quite a year for Richard Spitalny and Billy Blake.

Just a few months earlier, Billy discovered the manager of a computer retail store he co-owned was something of a genius. Fernando Herrera had won a $25,000 prize from Atari for *My First Alphabet*, created to test his two-year-old son's vision after major cataract surgery. The prize's name? The Star Award. Something clicked; Richard and Billy, tired of lengthy movie production cycles and being at the mercy of studios, realised that in six months they could potentially

go from a game concept to selling it to consumers – and there were more distribution and production channels for videogames than movies.

Inspired by Fernando's award, the new company was named First Star Software (FSS hereafter). Richard and Billy subsequently, in Richard's words, "left Fernando to do whatever he felt like doing, while Billy and I provided him with the equipment he needed and a salary". The first game Fernando devised was *Astro Chase*, where you pilot a ship around a cordoned-off section of space that's littered with planets, blow up alien craft and try to stop deadly mines from reaching Earth. Although basic and somewhat frustrating to play today, Richard says it caught the eye of the largest single investor in Commodore: "He loved it, and we were immediately offered $25,000 for the C64 rights. Since we were funding

□ INSTANT EXPERT

Prior to founding First Star Software, Richard Spitalny and Billy Blake were independent film producers. They liked the idea of working in the games industry because they'd no longer be at the mercy of major film studios.

The first game created by the company was *Astro Chase*, and the last game it created under a traditional development model was *Astro Chase 3D*, over a decade later.

On 28 October, Rockford officially turns 25 – that was the date in 1983 when First Star Software bought all rights to *Boulder Dash* from Peter Liepa. Since then, the game has appeared on almost every major videogaming platform.

When Warner bought half of First Star Software, the games company chose three properties to work on. Of these, *Spy vs Spy* and *Superman* both had three releases, but *Wonder Woman* never got further than being a logo on FSS stationery.

Today, First Star Software mostly makes *Boulder Dash* games for various platforms, and is becoming increasingly interested in download and mobile markets such as XBLA and Apple's App Store for the iPhone.

FSS and hadn't released the game, I said I needed to go back, speak to Fernando and think about it." Told it was a 'take it or leave it' offer, Richard decided to leave it, and as he headed towards the elevators, the offer suddenly multiplied by ten, which is roughly where we came in.

After protracted negotiations, FSS decided against the deal. *Astro Chase* was self-published and sold 40,000 units, with specific rights sold on to Parker Brothers for $250,000. For the tiny newcomer publisher, this was a major turning point, because it meant Richard and Billy were no longer funding FSS out of their own pockets.

During the following year, FSS began cranking out products for various platforms. *Panic Button*, a game where you assemble products on a multi-level manufacturing line, was designed as a test for a young programmer. Richard recalls: "He'd moved to the USA and was still in school. I gave him the idea for the game, which is based on an *I Love Lucy* routine where Lucy and Ethel are trying to keep up with chocolate candies on a conveyer belt. Since the programmer had a TRS-80 at the time, the game was only initially released for that platform."

Next, the *Q*bert*-like *BOiNG!* became FSS's sole Atari 2600 release. "It was created by a husband and wife team, and
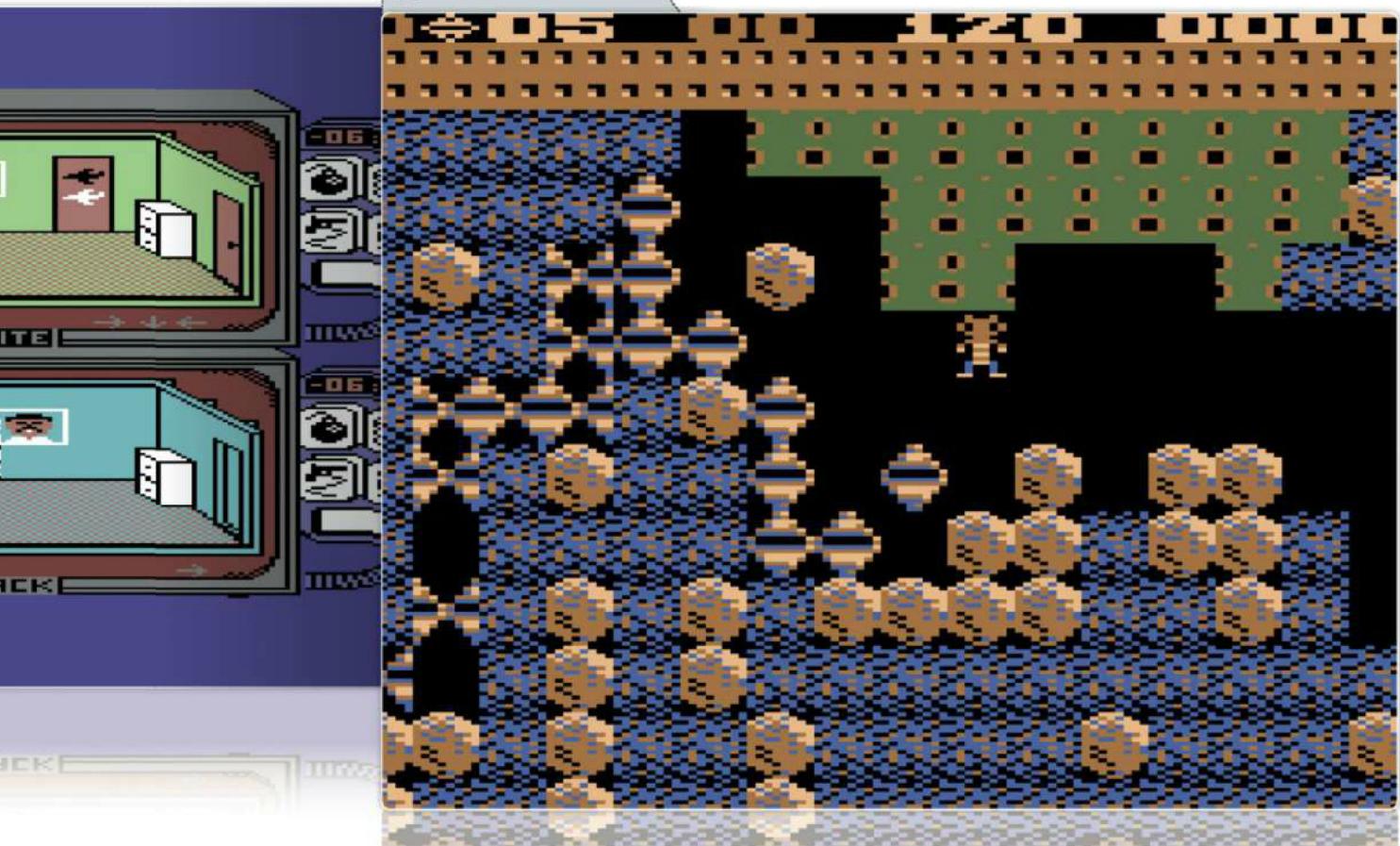
was going to come out under a publishing agreement with Atari, but never did," recalls Richard. "We were working on a version called *Jump*, to tie in with the Van Halen song, but that never happened." Richard says the game was ready for release before *Q*bert* arrived, but various delays meant it didn't appear until 1983. Luckily, no such delays affected Herrera's second FSS title, *Bristles*, a kind of cross between *Elevator Action* and *Pac-Man*.

Monkeying around
The next FSS title initiated a long-standing working relationship with Jim Nangano. *Flip And Flop* somewhat resembles *Q*bert* crossed with Atari's *Road Runner* coin-op and has Flip the kangaroo jumping around isometric platforms to reach marked tiles, while avoiding a zookeeper. When he's done, the viewpoint flips and the level is traversed again by Flop the monkey. Richard recalls Jim was "very talented and a key person at FSS for years," and that *Flip And Flop* was submitted while Jim was in the military: "He worked in a secret facility, tracking the world's nuclear submarines. One time, he asked me to please stop stamping 'CONFIDENTIAL' in red on the disks we

were exchanging, because every time he'd enter or leave the military facility, everything he carried was inspected, and it took a long time to prove the disks didn't contain military secrets!"

By this point, FSS had a solid collection of titles, but 28 October 1983 was the date that changed the fate of the company forever: it was the day FSS purchased all rights to *Boulder Dash* from Peter Liepa. "The game was submitted to us before it was completed, and although

> ## " Boulder Dash is easy to learn, so it appeals to a large cross-section of people "
> RICHARD SPITALNY, FIRST STAR SOFTWARE CO-FOUNDER

the graphics weren't great, the gameplay was excellent," remembers Richard, who was taken in by the "mix of 'mental gymnastics' needed to figure out the solutions, in combination with the need for quick reflexes and precise movements."

Richard recalls all *Boulder Dash*'s gameplay and cave designs came from Peter, with some initial help from Chris Gray, and FSS merely asked for subtle changes, such as the single-screen bonus caves and varied colour palettes. The

game subsequently became FSS's bread and butter, and has stood the test of time remarkably well.

"It's easy to learn but tricky to master, which ensures it appeals to a large cross-section of people, and you can return to caves to try different solutions, collect more diamonds and beat your scores," says Richard. He also remembers Peter being a reliable, solid developer: "He never worked for FSS. He was an independent developer doing everything on his own. He designed the games, wrote the code, created his own graphics and music. And while Peter did not 'contribute', if you will, to the company itself, *Boulder Dash* has certainly been a huge part of FSS for the past 25 years; even today, it's our cornerstone."

Continually thinking of ways to expand FSS, two major deals were sealed by the company in the mid-Eighties. The first would prove be short-lived: the coin-op rights to various FSS properties were sold to Exidy, resulting in some rather odd arcade games that were based on modified Atari consoles. More important was the sale of 50 per cent of FSS to Warner, the thinking being that FSS would have access to the American

The flying saucer from *Astro Chase* 'up in lights' at Times Square, New York City, on New Year's Eve 1982.

[Commodore 64] *My First Alphabet* not only netted its creator $25,000, but inspired First Star's formation.

[Commodore 64] *Boulder Dash* was a huge success for First Star Software. This is *Boulder Dash II: Rockford's Revenge*.

giant's channels, expertise and IP, along with a large chunk of operating cash.

For a company that, until this time, had concentrated solely on creating original videogames, the shift towards licenses might seem mercenary in nature, but Richard reckons it was merely an obvious direction for FSS to go in: "It's no secret that well-known brands help products stand out from the competition. If you've a good game, people would rather play one that stars characters they know, and often there are back stories or unique features and powers characters possess that can make for an even richer experience."

Spy game

Of the three properties FSS decided to focus on – *Spy vs Spy*, *Superman* and *Wonder Woman* – the two battling cartoon spies from *Mad* magazine surprisingly gave rise to the best-known FSS brand after *Boulder Dash*. "I was very involved with *Spy vs Spy*, and came up with Simulvision,

> ## " It's no secret that well-known brands help products stand out from the competition "
> RICHARD SPITALNY
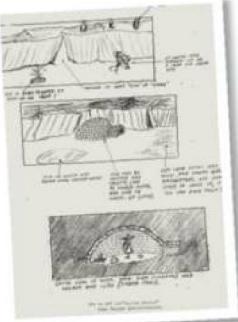
Design documents from the third *Spy vs Spy* game, *Arctic Antics*.

Simulplay and the Trapulator," says Richard. "I made it a requirement of the game that players not have to take turns, and I'd picked *Spy vs Spy* from the Warner properties because I felt, if done right, the 'payoff at the very end' that's in the comic strip could be brought into an interactive game. But, to do that, you couldn't be sitting watching what the other spy was doing – you had to find a way for both players to be active at the same time."

The split-screen dynamic was unusual for the time, but Mike Riedel ably coded the game, enabling each player or a player and computer-controlled spy to act

independently, plant traps, and search for game-winning components. The same core gameplay was used with relatively few changes in two 8-bit sequels, and millions of units were sold across the three games in the series, enabling FSS to increase its internal development resources. Most importantly, says Richard, "the tremendous success with *Spy vs Spy* served to add to our credibility. We weren't a 'one-trick pony'."

Sadly, the Warner deal didn't bear further fruit. A *Wonder Woman* game never saw the light of day, and although there were three attempts at a *Superman* game, none of them are memorable for the right reasons. The disastrous C64 effort from 1985 is the worst: a nasty *Pac-Man* clone with dull mini-games, which Richard puts down to the team being over-extended with too many titles in development, along with perhaps too much ambition: "The game was released with design ideas not fully implemented

▢ WHERE ARE THEY NOW?

Richard Spitalny
Co-founder of First Star Software, Richard briefly became involved with digital studio Imergy in the Nineties, working on various interactive titles. However, he returned to what he "knows and does best", and today again runs the company he started.

Billy Blake
Despite co-founding First Star Software, by 1985 Billy had returned to his original loves: movies and photography. He

worked on *The Night The Lights Went Out In Georgia*, *Rhinestone*, *The Hunter's Moon* and *Pumpkinhead*, among others. Billy's photography is also regularly exhibited. He's shown at Image Gallery, New York; Universal Gallery, California; The Los Angeles Art Show at the 825 Gallery; the National Juried Photography Exhibition 2007; and the Long Island Museum of American Art.

Fernando Herrera
Creator of *Astro Chase* and the inspiration for First Star's name,

Fernando Herrera's credits dry up in the late Eighties, and we couldn't trace him.

Jim Nangano
Jim continued programming videogames into the Nineties, including MicroLeague sports titles. His current whereabouts are unknown.

Peter Liepa
After abruptly quitting the games industry due to its "boom and bust nature, the scarcity of good platforms after the Atari 800 and the lack of a local industry," *Boulder Dash*'s creator

became seduced by the 3D computer graphics industry. Peter went on to spend 15 years at Alias/Autodesk, and his work led to nine patents. He currently works with Digital Arts, Inc.

Mike Riedel
After his work with FSS, Mike continued in the games industry and has credits on titles from Hi-Tech Expressions, Ripcord and Running With Scissors, the most famous of which are the *Postal* games, for which Mike was a producer. Since 2004, Mike's moved towards engineering.

☐ SIX OF THE BEST

Boulder Dash
[1984]

Although some modern takes on *Boulder Dash* are great, with excellent cave design, Peter Liepa's original remains a standout creation. Its 16 caves, each with five variations, provide plenty of challenge, and the game's so good that it's no wonder ports still thrive on modern platforms. The Atari 8-bit release is still best, though.
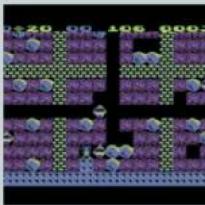
Flip And Flop
[1984]

Jim Nangano's oddball collect-'em-up plays like a mix of *Q*bert* and Atari's *Road Runner*. Levels switch between a hopping Flip (a kangaroo) and hanging Flop (a monkey), tasking you with touching marked tiles and avoiding an angry zookeeper. *Clown-O-Mania* on the Amiga borrowed the concept but wasn't nearly as good.

Spy vs Spy
[1984]

The original *Spy vs Spy* game is a fantastic example of a split-screen approach, enabling players to play simultaneously. You can set traps for your opponent, but must be watchful of what they're up to. Plenty of humour is evident throughout and, unlike most games based on comics, *Spy vs Spy* lives up to its source material.

Spy vs Spy II: The Island Caper [1985]

Although this sequel has the same core gameplay as its predecessor, there's enough innovation to warrant its inclusion in the best-of list. The graphics are prettier, and the desert island location provides plenty of new traps, including petrol bombs, snares and pits. It's also possible to swim between islands, through shark-infested water.
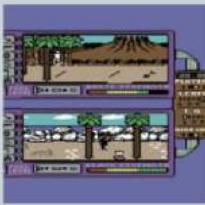
Boulder Dash EX
[2002]

Although playing rather differently to *Boulder Dash* – *EX* is slower and far more complex – this is a great re-imagining of the 8-bit classic. With more emphasis on puzzles and power-ups, *EX* is taxing and challenging, and although Rockford has been replaced by a manga reject, the game's positive qualities make up for it.

Boulder Dash XMAS 2002 Edition (2002)

Astro Chase or *Security Alert* might have got the nod if it wasn't for this festive-themed *Boulder Dash* effort. The graphics are slightly iffy, but there's no doubting the brilliant design of this game. Its cave designs rival Liepa's originals, and the map structure means that you can bypass stages you can't solve.

and some interface and control issues that negatively impacted gameplay. Also, we tried to include too much in the game, so there were lots of 'ideas' and 'things' but none were done very well."

Sequels to *Spy vs Spy* and *Boulder Dash* kept FSS going well into the Eighties, however. The former series wowed reviewers with *The Island Caper*, stranding the adversaries on a desert island surrounded by shark-infested waters. "We knew that Simulvision, Simulplay and the Trapulator were all well received by players, and so it seemed only logical to build on the success of the first game in the series and to reuse the underlying engine, which would mean we could come to market sooner than with another all-new game or approach," says Richard.

As with *Spy vs Spy*, *Boulder Dash* had several sequels in relatively quick succession. Richard notes that "once you've found something that 'works', the key is to keep adding to the brand, to the experience". Arguably, it took three attempts before *Boulder Dash* fully

☐ THE MYSTERY OF BOULDER DASH III

After *Boulder Dash* and *Rockford's Revenge* came *Boulder Dash III*, a markedly different game that disappointed many with its garish, confusing, bas-relief graphics and poorly conceived cave layouts. (It nonetheless Sizzled in *Zzap!64*, suggesting that the reviewers had scoffed a few too many Jelly Babies that day.)

It takes an emailed screen grab for Richard to remember *Boulder Dash III* – he initially confuses the game with *Boulder Dash Construction Kit* – whereupon he reveals why it feels like the odd one out in the original 8-bit series: it's a clone, albeit an 'official' one.

"It was created by a licensee in Sweden: American Action AB. It was an official release, since we were paid for it and approved it, but it was not designed by Peter Liepa nor First Star Software," explains Richard. "As I recall, they came to us with a finished 'clone' and we worked something out to make it official. Proper credits and legal notices were included, and we received an advance against royalties and a continued revenue share, such that the title could come out in the mutually agreed to territories. However, First Star itself never published the game."
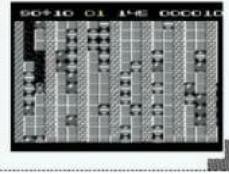
managed this. First, *Rockford's Revenge* provided gamers with a new set of Liepa-designed caves, but little else, and then a bizarre sequel with bas-relief graphics (see: 'The mystery of *Boulder Dash III*') did little more than make people impatient for what they really wanted: the ability to fashion their own caves.

Richard says he recalls designing and building *Boulder Dash Construction Kit* very well: "It was something we'd wanted to do, but at the 'right time', which for us was after *Rockford's Revenge*. We felt that by then there were enough fans who really understood the game inside and out and that they'd enjoy creating and sharing their own caves."

Lots of time was spent making the kit as intuitive and easy to use as possible, and it was released to rave reviews. Of course, it also put paid to any subsequent home *Boulder Dash* games – bar disappointing conversions of *Rockford*, by then the third *Boulder Dash* flirtation with the arcades – and with the third *Spy vs Spy* game being a letdown, FSS's blazing light was for the first time starting to dim.

The road to nowhere

The last few years of the Eighties were a turbulent time for the company, which had previously enjoyed almost constant success. Things began to unravel with the ambitious *Omnicron Conspiracy*, a science-fiction graphical adventure game for 16-bit platforms, somewhat along the same lines as LucasArts productions. Around the same time, FSS worked on two other original titles: one-on-one fighting game *Millenium Warriors* and the noteworthy, innovative *Security Alert*, which has you breaking into various establishments, using both side-on and

overhead viewpoints to defeat security systems and grab your prize.

"All three of these games included groundbreaking elements, both in terms of unique gameplay and story, but unfortunately they were created as we were leaving publishing, in an attempt to focus solely on development," says Richard. "The problem ended up being that both Epyx – for *Omnicron Conspiracy* – and Intracorp – for *Security Alert* – were themselves, struggling as publishers." The original agreement with Epyx was to deliver *Omnicron Conspiracy*, *Spy vs Spy: Arctic Antics* and *Boulder Dash Construction Kit* across numerous platforms, which FSS had never done before for a publisher – the company had previously self-published or licensed platform rights to a third-party that handled the ports. "As it turned out, due to the inevitable submission-review-revise-resubmit-review and approval process between developer and publisher, in this particular case due to shortcomings at both FSS and Epyx, we pretty much got eaten up alive," recalls Richard,

FIRST STAR SOFTWARE Presents "ASTRO CHASE" by Fernando Herrera

☐ THREE TO AVOID

Superman [1985]

Plenty of ambition doesn't necessarily make for a great game, as this first crack at *Superman* proves. A quick read of the manual suggests there's plenty to do, but when you load the game, you find a collection of dull mini-games with unresponsive controls, sparse sound effects and uninspiring graphics. Tynesoft's later attempt is better, although still no classic.

Spy vs Spy III: Arctic Antics [1986]

The previous two *Spy* games are still great fun, but even in 1986 *Arctic Antics* proved a game too far. The third *Spy vs Spy* instalment lacks the visual appeal of *The Island Caper*, and its gameplay seems less finely tuned. It's not a disaster, but there's little point playing it over its predecessors.

Millenium Warriors [1989]

More a missed opportunity than the worst game in the world, *Millenium Warriors* has a decent idea behind it, tasking you with one-on-one battles in various eras. Caveman brawls, pirate swordfights and futuristic laser-gun fights look nice, but one-on-one fighting games live or die by their controls; *Millenium Warriors* sadly proves awkward, and therefore isn't much fun.

BOULDER DASH II
by Peter Liepa
© 1985
FIRST STAR SOFTWARE inc

Such was his popularity, Rockford appeared in issues of Zzap!64.

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sadly. "By that I mean that the time and money we expended in developing all of these SKUs was much more than we earned from royalties, advances and sales combined."

In a relatively short space of time, FSS went from a solid, profitable company to one that barely existed. The sales department had previously been closed, as FSS segued from development and publishing to development-only, but now the development department closed its doors as well, with the exception of Fernando Herrera, who completed *Security Alert* for the C64 on his own.

Just one more game arrived from FSS under a traditional development model – a reworked, technically groundbreaking take on its very first release. "*Millenium Warriors* for C64 wasn't released until it was included as part of *First Star Software's Greatest Hits*, but it was the first project we worked on with Ofer Alon, and he went on to co-create the Software Accelerated Graphics Engine (SAGE), which served as the engine for *Astro*

> ## " I made it a requirement of Spy vs Spy that players not have to take turns "
>
> RICHARD SPITALNY

Chase 3D on the Mac," says Richard. Chances are, few people reading this article will be aware that *Astro Chase* had a sequel, but in its target market, *Astro Chase 3D* reviewed just as well as its forebear. The game takes the original's core gameplay and turns it into a fast-paced 3D shooter. The unique rendering engine wowed Mac users at the time – some noting how, while ageing systems played the likes of *Doom II* in a box-like window, *Astro Chase 3D* happily ran flawlessly at twice the screen resolution

– and the mouse-based control system proved fluid and intuitive.

Despite this sole very successful release and plentiful positive reviews, along with the underlying SAGE engine working brilliantly, further games didn't appear. "We unfortunately were not able to come to terms internally with Ofer as how best to exploit the engine," says Richard. "We had lots of significant interest from some very large companies, but they were only interested if we would port SAGE to the PC and Ofer felt strongly that we should stay with the Mac. Ultimately we ended that partnership."

For a while, it seemed like FSS's doors would remain forever shut. Although Billy Blake had departed, Richard had stuck with the company, but by 1995 even he'd had enough: "There was a period where I got involved with another company – a digital studio, as they were called in the 'dotcom' days. I personally needed to recharge my batteries – they'd been badly drained by the time, money and effort invested in SAGE, ultimately, all for naught."


TIMELINE

| Year	Event
1982	AN INVESTOR OFFERS $250,000 FOR C64 *ASTRO CHASE* RIGHTS. RICHARD SPITALNY AND BILLY BLAKE REJECT THE DEAL AND FOUND FIRST STAR SOFTWARE (FSS) TO CREATE AND PUBLISH THEIR OWN VIDEOGAMES.
1983	$250,000 DEAL SIGNED WITH PARKER BROTHERS FOR ATARI AND COLECO *ASTRO CHASE* RIGHTS. *BOULDER DASH* RIGHTS PURCHASED FROM PETER LIEPA.
1984	COIN-OP RIGHTS TO FSS GAMES LICENSED TO EXIDY. *BOULDER DASH* RIGHTS LICENSED TO MICROLAB FOR $1.3M, WHICH SUBSEQUENTLY DEFAULTS. FIRST *SPY VS SPY* GAME RELEASED.
1989	AGREEMENT WITH EPYX FORGED TO DELIVER GAMES ACROSS VARIOUS PLATFORMS. SHORTCOMINGS AT BOTH COMPANIES CAUSE PROBLEMS, LEADING TO *OMNICRON CONSPIRACY* BEING THE LAST GAME DEVELOPED BY THE FSS TEAM. FSS CLOSES ITS DEVELOPMENT DEPARTMENT.
1993	*ASTRO CHASE 3D* PREVIEWED FOR THE MAC AT SUMMER CES. IT SHIPS THE FOLLOWING YEAR, THE LAST GAME FSS PRODUCES UNDER THE TRADITIONAL DEVELOPMENT MODEL.
2001	JAVA-ENABLED *BOULDER DASH* SHIPS IN JAPAN, BEGINNING FSS'S RESURGENCE.
2003	FSS SHIPS FIRST ONLINE/TRY-AND-BUY TITLE, *BOULDER DASH TREASURE PLEASURE*, AND ITS FIRST CELL PHONE TITLE, *BOULDER DASH ME*.
2007	*BOULDER DASH ROCKS!* RELEASED FOR THE NINTENDO DS.
2009	*BOULDER DASH* 25TH ANNIVERSARY RESULTS IN VARIOUS RELEASES, INCLUDING ORIGINAL *BOULDER DASH* AND *BOULDER DASH ROCKS!* FOR THE IPHONE, AND RELEASES OF *ROCKS!* FOR BLACKBERRY, WINDOWS MOBILE, J2ME AND BREW, AND *BOULDER DASH PIRATE'S QUEST* FOR THE PC AND MAC.

The original *Spy Vs Spy* was very popular, and a fun adaptation of the hit comic strip.

Towards the end of the Eighties, First Star Software returned to original properties, such as *Security Alert*.
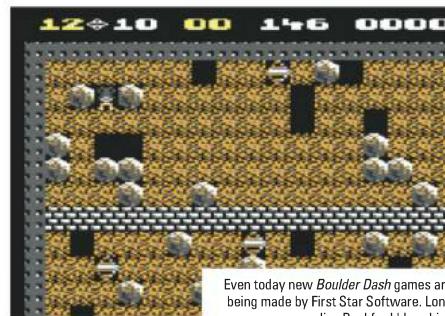
Even today new *Boulder Dash* games are being made by First Star Software. Long live Rockford bless him.
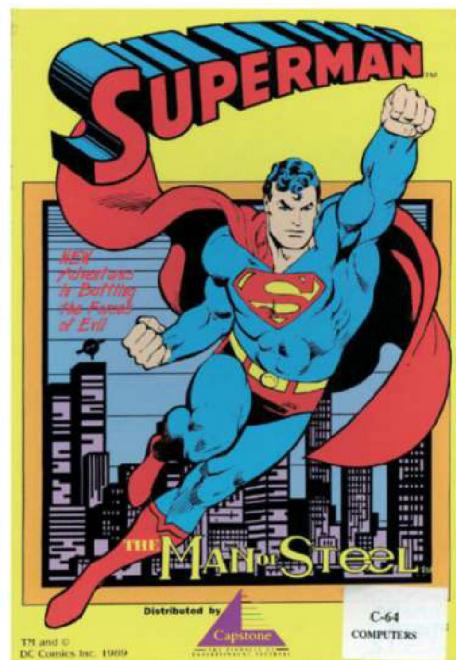
During this time, Richard was minority owner and senior/executive VP product development for Imergy, a company that did several *Star Trek* interactive titles for Simon & Schuster, such as *Star Trek Omnipedia*, *Star Trek: The Next Generation Interactive Technical Manual*, and *Star Trek: Captain's Chair*, along with an interactive CD-ROM based on *The Joy Of Cooking*, and various extranet sites for companies such as GE and Clairol.

But gaming was in Richard's blood, and it wasn't long before he was drawn back into the industry.

The comeback kid

After almost a decade of laying dormant, FSS sparked back to life. The re-emergence was driven by long-standing Japanese partner Kemco wanting to develop the original *Boulder Dash* for phones in Japan. When this proved successful, the more ambitious *Boulder Dash EX* was created for the Game Boy Advance, offering extended gameplay, including a multiplayer battle mode and the ability to rotate the screen. "Although the game didn't do as well as it could have, *Boulder Dash EX* convinced me *Boulder Dash* could be updated while remaining true to the game's core principles and appeal," says Richard.

Although new *Boulder Dash* features are divisive, Richard thinks they work nicely if you approach the games with an open mind; he cites slower boulder drops and a 'Zen' mode that removes the timer, enabling players to amble about caves at leisure to figure out solutions. And with this new *Boulder Dash* arsenal, there's been no stopping a reinvigorated FSS. Since 2002, we've seen numerous games based around the property, including the

impressive *XMAS 2002* edition for the PC and the pretty *Boulder Dash Rocks!* for various handheld systems.

Major changes to FSS's most famous property have been echoed in the company itself. These days, it only develops games with full development partners. "We do not pay royalty advances. All development is handled and financed by the developer," explains Richard. "We provide the IP, game design documents and a [producer] for the project. The developer is responsible for code, art, music, QA, and so on. We then arrange for distribution or co-publish with a strong partner for a given platform, and we share royalties on a 50/50 basis."

For FSS, this streamlined approach provides the opportunity to compete on a level playing field with industry giants. Online try-and-buy, Flash games via DotEmu's EasyRetro portal – currently *Boulder Dash: Arcade*, but soon also *Astro Chase*, *Bristles* and *Flip And Flop* – and download networks and mobile platforms have proved fruitful for FSS, reducing

☐ THE CHANGING FACE OF BOULDER DASH

From cave-mite to miner to strange cat-like thing, the appearance of *Boulder Dash*'s protagonist has changed more often than Madonna's – surprising for First Star's 'mascot'. "We love the original Rockford," affirms Richard, "but over the past 25 years, it seemed like a good idea to have him evolve as technology improved and expectations for in-game graphics increased. Also, with *Boulder Dash* appealing to female players, we introduced Crystal – Rockford's sister – which appears successful when noting the number of Crystal 'avatars' for *Treasure Pleasure* and *Pirate's Quest* online high-score tables."

inventory risks, marketing expenses and time to market. The original *Boulder Dash* is on Virtual Console, and Richard is aiming to see Rockford infiltrate XBLA, DSiWare and PSP Go. This reliance on digital distribution also, perhaps inevitably, resulted in games for the iPhone, with the original *Boulder Dash* and a tweaked *Boulder Dash Rocks!* on the App Store.

Despite all this new technology, Richard remains very aware that his company began in 1982 and now spends an awful lot of time reworking a 25-year-old game. "But I find the increased interest in retro gaming very interesting," he says. "I think it says something about the fact that while we enjoy 3D graphics, extreme realism and huge, alternate worlds, we still crave games that are easy to get into and that can be played in short sessions."

We ask how hard it is to snare new gamers with old properties, without annoying those who loved them when they first appeared. "That's an interesting question, and we had our heads handed to us by our most die-hard fans when we previewed *Boulder Dash* for iPod," laughs Richard. "Our intention was to release the game with its original caves but updated graphics. Well, let me tell you, when those screenshots came out, the forums lit up, letting us know, in no uncertain terms, that this would not stand!" In the end, a retro mode eventually became the default.

Much of FSS's future depends on the success of its Flash and iPod games, along with upcoming productions for XBLA. But Richard says FSS's prospects aren't entirely reliant on the past: "We do have one or two new game ideas that we're playing with, which, if they come to fruition, will be the first all-new games from us in many, many years!"

64 The Collector's Guide
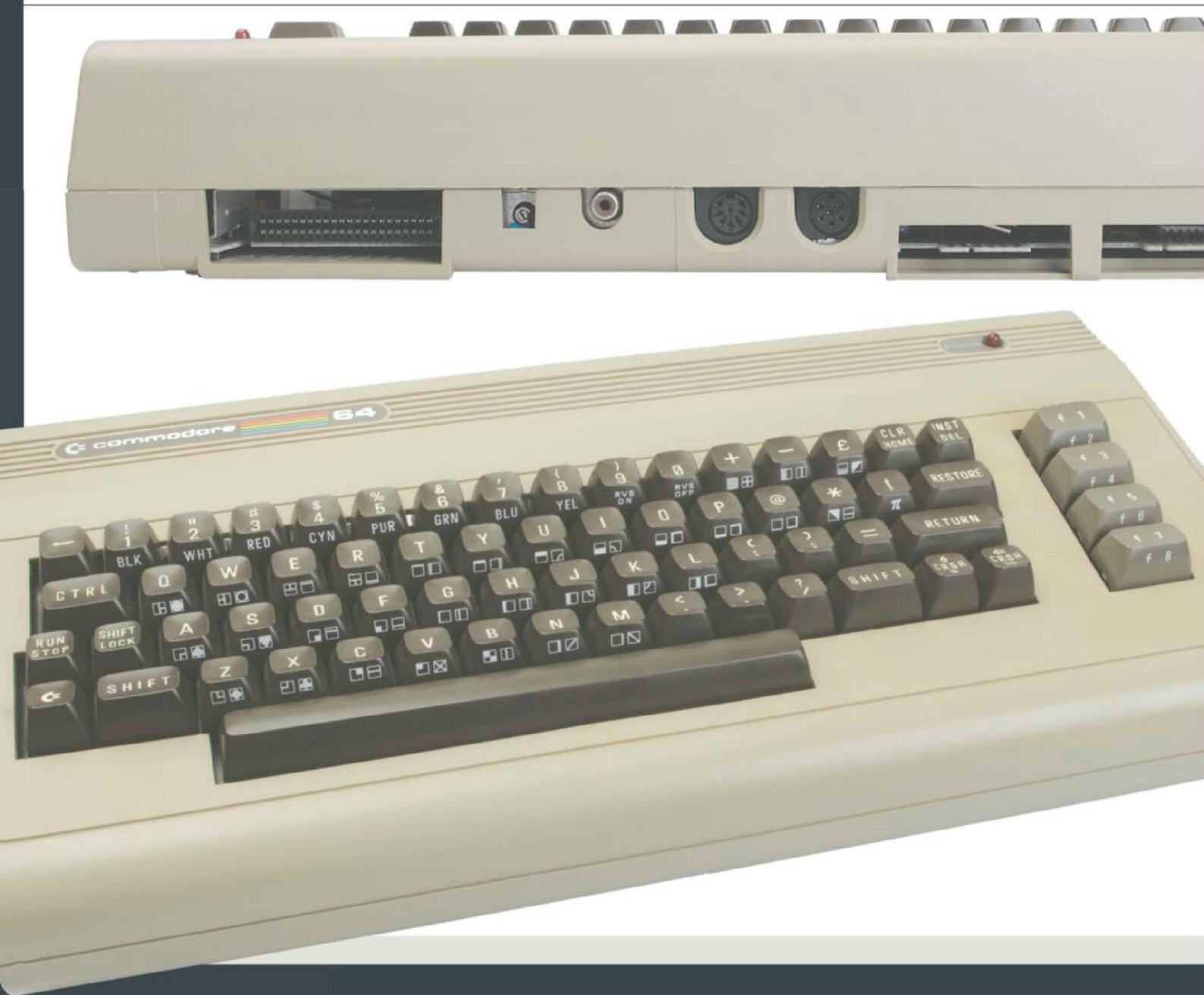
COMMO

Commodore's 8-bit computer is more popular than ever and highly collectible. The following guide reveals the best it has to offer
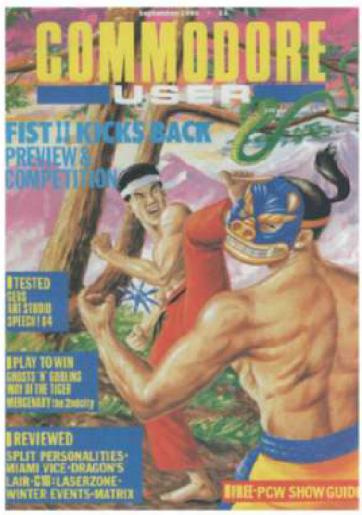
» **Manufacturer:** Commodore » **Model:** Commodore 64 » **Launched:** 1982 » **Country of Origin:** USA
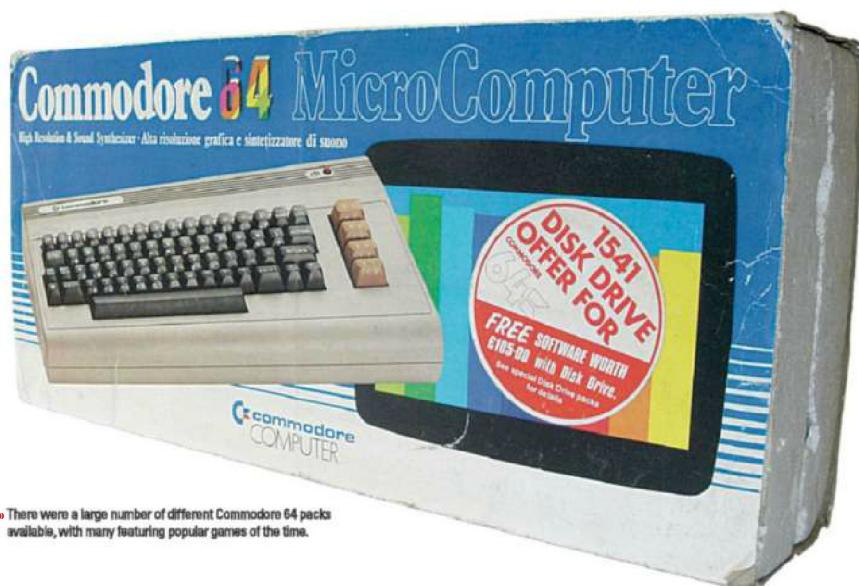
DORE 64

» Commodore obviously liked the aesthetics of the Amiga as it eventually placed the C64 in a similar casing.

» There were plenty of magazines available for C64 owners to choose from, including *Zzap!64*, *Commodore Format* and *Commodore User*.

» There were a large number of different Commodore 64 packs available, with many featuring popular games of the time.

WHY IT'S COLLECTABLE

The first thing to realise when considering collecting for the Commodore 64 is that it isn't like *Pokémon*; you most certainly cannot catch them all. With an estimated 10,000 or more commercial titles, it adds up to a hell of a lot of games to track down. When taking that into consideration, along with accurate emulation via Vice and CCS, and the availability of devices such as the SD2IEC and 1541 Ultimate to play game images on real hardware, just why should people collect originals?

It is, admittedly, a very good question, and one with very good answers. First, there's the tangibility aspect to owning a set of cherished games; to be able to hold them in your hands, look at them and treasure them. Today, for so many people, a collection may amount to no more than an uncountable number of MP3s or video files stored upon a hard drive, whereas with a vinyl album or CD, a video tape or DVD, you tend to

value and appreciate it more because it's a physical object. This is no different when it comes to computer games or videogames. In contrast to today's fairly uniform publishing world, there were quite a number of titles during the 1980s that had standout packaging or utilised a particular eye-catching style, such as the Infocom adventures, Electronic Arts' gatefold album homages or Broderbund's curiously hexagon-shaped box for *Centauri Alliance*.

The other main argument to this point is that there were a lot of complex games released for the C64, straddling genres as diverse as RPG, strategy, adventure and tech-heavy simulations. Each game's packaging – especially their manuals – were a vital component of the experience, and without them you would often be left swimming in the dark, not knowing what to do. Sure, they may be scanned and made available for reference, but it isn't quite the same as flicking through a thick paper-based book or glancing over large-sized printed maps, and they would more often than not be used for the copy protection look-

ups. Games such as *Wasteland* even went as far as including false entries in the associated booklets to confuse possible cheaters!

Not everyone has the same reasons for collecting, and quite often they overlap. Many collectors tend to focus on particular genres, certain companies, or merely games they recall playing when they were younger. Needless to say, this proves to be a fairly popular approach, especially given the aforementioned perceived impossibility of obtaining everything ever released. The timeline of the C64 means that many of the kids who were battling alien invaders or conquering foreign lands now have children of their own, and for some it's a way to introduce what they loved to a new generation.

Some people just like to collect in general. Others will often focus on rare and hard to find titles in order to digitally preserve for distribution online. Myself? Well, I can honestly say all three of those apply and more, although I'm lacking in the children department currently. Sometimes there's nothing like the thrill of
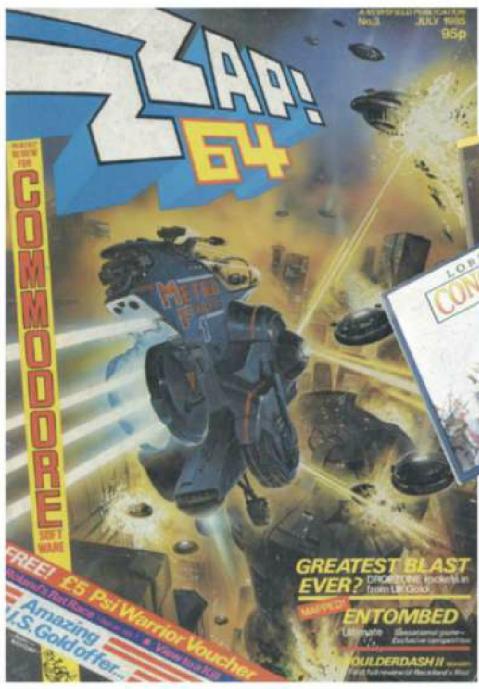
» Electronic Arts' gatefold covers not only set them apart from other publishers, but also made them very collectible.

» One of the great things about collecting for the Commodore 64 is the sheer variety of box designs that are available.
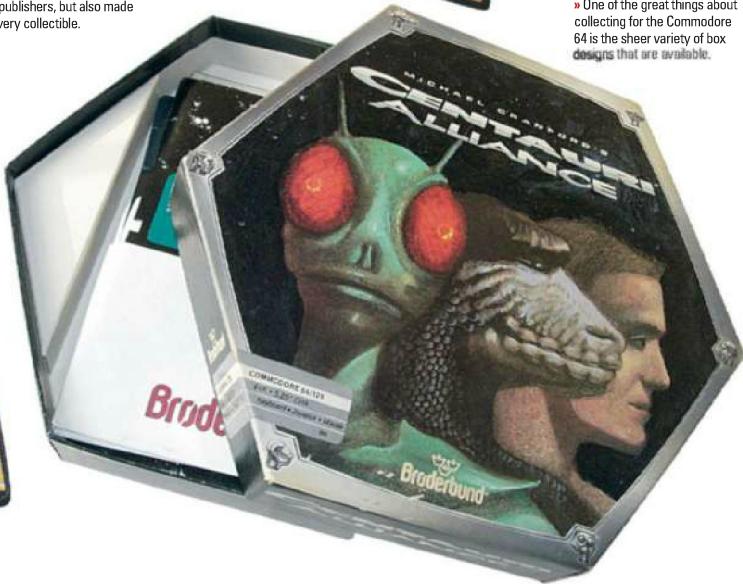
the chase, or suddenly discovering a game you never knew about before and enjoying it. Games are still written for the C64 even today, the format thriving well after Commodore's bankruptcy, and although many are made available for free, some are published (by the likes of Cronosoft and Psytronik) for money, and in many cases, the entry fee is well worth paying, such as with *Newcomer* or *Knight 'n' Grail*.

Regardless of all the arguments, there will always be some people resolutely stuck to collecting only through digital means; if anything, it's a great way to try before buying if you're serious about collecting games you also want to enjoy playing. So, if you are still here, and still keen on acquiring C64 games, then where should you begin? The answer to that really lies in which genres you enjoy, because there is nothing that the C64 doesn't hold in spades, and a lot of the time collecting for the format will not set you back much money in the process.

The most noticeable dichotomy, however, was that most of the resource hogs such as simulations,

RPGs and strategy titles came from the US, where owning a disk drive was a way of life, and most of the great arcade-orientated titles and quirky concepts came from Europe. Hence compared to Spectrum and Amstrad owners, C64 users literally gained the best of both worlds. Adventures, as it turned out, were split down the middle. On one hand there was the genius nature of much of Infocom's output, balanced against the tight, compelling works of Level 9 (*Gnome Ranger* and *Scapeghost*) and Magnetic Scrolls (*The Pawn* and *Guild Of Thieves*). Whichever way you saw it, there wasn't much on any of the other 8-bit computers to match them, and the versions released were just as good as the corresponding 16-bit incarnations.

If adventures were not your thing, then there was bound to be something else. Fighting games? *IK+*, *Way Of The Exploding Fist* and *Barbarian*. Racers? *Pitstop 2*, *Turbo Charge* and *Revs*. Puzzlers? *Zenji*, *Sokoban* and *Pipemania*. Platformers? *Impossible Mission*, *Mayhem In Monsterland* and *Monty On The Run*. Shooters? *Armalyte*, *Turrican*, and *Wizball*.

RPGs? The *Bard's Tale* trilogy, *Ultima 4* and *Mars Saga*. Action adventure? *The Last Ninja*, *Project Firestart* and *Mercenary*. Strategy? *Laser Squad*, *Storm Across Europe* and *Germany 1985*. Simulation? *Gunship*, *Project Stealth Fighter* and *Silent Service*. Sports? *Microprose Soccer*, *TV Sports Football* and *Leaderboard*. Doesn't fit a genre? *The Sentinel*, *Citadel* and *Little Computer People*.

The relatively small amount of space here doesn't allow for a full dissection of the vast number of quality titles available, and there are many, many more for each genre listed above, collated in the list at the end of the article. The lack of regional lockout means buying games from abroad is relatively simple, and thankfully the majority of the best foreign titles were released in the UK, or the import versions work fine on PAL machines; **Retro Gamer** even has some handy advice over the page to help with this.

So what are you waiting for? Fire up the Commodore 64, turn on the disk drive and dive into a world of endless possibilities…

THE PERIPHERALS

» According to Commodore, the disk drive was more expensive to manufacture than the C64 itself.

» Note the contrast between equivalent US and European releases of the same game.

THE DISK DRIVE

If there is one piece of hardware that you absolutely, positively need to play and collect C64 originals in this day and age, it's the Commodore's external disk drive. Most of the popular, collectable and in-demand titles were released on disk (thus avoiding the long loading times of tape), and there are plenty more that were unique to the format. Given that one will set you back around as little as £20 today – as opposed to the £150+ you would have to pay during the 1980s – then there's really no excuse either.

The original 1541 model can be discounted because of its bulky nature, weight and temperamental drive latch mechanism. The 1571 model is excellent, but you cannot take advantage of the extra features unless you have a C128 or are running disks created using a 1571. This leaves two main options on the table. Commodore's own 1541-II is solid, reliable, easy to open and clean, and does what it says on the tin. In

the other corner resides the Excelerator+ produced by Evesham Micros, a clone drive that was every bit as good as the official thing, and perhaps even better in some respects.

Due to Commodore's insistence on sticking with a serial communication system, the speed of an ordinary disk drive is not that fast. Thankfully a few enterprising companies released kernal replacements such as Dolphin DOS, or cartridge-based fast loaders such as the Epyx Fastload, Cinemaware Warpspeed, and those present on Datel's Action Replay. Most original games published after 1984 came with a fast loader as standard, but for using with your own disks – or indeed any game without one – these options certainly take the strain out of waiting.

Speaking of fast loaders, a cautionary word should be given if you are looking to import disk-based Commodore 64 games. Thankfully, all bar one of the major C64 markets you are likely to buy from use PAL, with the exception obviously being the US. While there are no regional lockouts, there may be some

issues when loading American games on a UK C64, but this isn't specifically because of the difference in television standards. In actual fact, the speed and timing of the disk drive is directly controlled by the C64 itself, and an NTSC machine runs at just over 1MHz whereas a PAL one runs at just under 1MHz, hence any copy protection or fast loader requiring extremely precise timing during the boot process will fail if run on the 'opposite' machine.

Caveat emptor, and all that; it certainly pays to do your research, especially if you also want to play the games in question once you've had them shipped over from the US. Strategy, RPG and simulation games from the likes of Origin and SSI are almost certainly compatible in the UK, along with releases by Synapse and Broderbund. Activision games are more than likely to work, but games from Electronic Arts, Epyx and Interplay tend to be around 50/50 on their chances. Furthermore, anything from Accolade is pretty much right out. If in doubt, ask for advice online at places such as Lemon64.

...AND THE REST

01. Action Replay cartridge
■ An Action Replay cartridge was an essential component of any C64 setup. With a wide range of features such as freezing and dumping memory to disk, hunting for cheat codes, copying files or merely acting as a disk fast loader, there was something for everyone. The last entry in the series, number six, is the best one to go for.

02. Expert cartridge
■ In contrast, the Expert cartridge was more for the serious enthusiast instead. It could act as a freezer and disk copier like the Action Replay, but also had an in-built machine code monitor and file converter. While publically attacked as a copy device, many programmers such as John Twiddy openly admitted to using the cartridge to assist them when working.

03. Protovision four-player adapter
■ The Protovision four-player adapter is one example of a user port-based extension to enable another two joysticks to be connected to the C64. Although mostly supported by newer software such as *Bombmania*, it can also be used with adapted older games, such as the beautiful *IK+ Gold* release that allows for three human players.

04. Magic Voice
■ The Magic Voice was a bold but failed attempt to add hardware-supported speech to games. It's only utilised by Commodore's conversions of *Wizard Of Wor* and *Gorf*, and is required to run *A Bee Cs*. Three games may not sound much, but it certainly adds something while playing the arcade titles.

05. Cartridge expansion board
■ Sometimes a C64 owner would have just too many useful cartridges, and an expansion board would be the ideal way to save wear and tear on the cartridge slot of the computer. Each slot has a switch beside it allowing them to be toggled on and off for booting on power-up.

06. TIB 3.5" drive
■ The TIB 3.5" drive was a failed attempt to give the smaller floppy media more market penetration. Despite the incredibly fast loading speeds due to the drive being connected through the cartridge port, users and publishers were reluctant to break from the 5.25" floppy format, and it was essentially dead at launch.

07. Datel Sound Sampler
■ The Datel Sound Sampler was a cheap, fun way to play with sound. Everything needed was included in the package, and once a sound was captured then echo, reverb or any manner of manipulation could be performed on it. Just a pity you couldn't save them out for later use.

TOP 5 GAMES TO PLAY

The Sentinel
■ All powerful. All seeing. All absorbing. *The Sentinel* is arguably Geoff Crammond's finest moment, full of atmosphere, challenge and strategy across 10,000 levels.

Mayhem In Monsterland
■ The last great game of the original era, *Mayhem In Monsterland* showed the consoles that a humble 8-bit computer could produce a platformer just as good as they could.

Impossible Mission
■ 'Another visitor. Stay a while. Stay forever!' A fitting description of *Impossible Mission*, a perfect balance between risk and reward. If you fail, you only have yourself to blame…

Zak McKracken and the Alien Mindbenders
■ *Zak McKracken* was the second, and arguably better game produced using the SCUMM engine for the C64, and saw all manner of strangeness in your quest to prevent aliens from reducing Earth's intelligence.

Last Ninja 2
■ *Last Ninja 2* was the greatest of the trilogy, with the best music and graphics. You even got to pretend to be a real ninja if the mask and rubber shuriken weren't confiscated!

PLAY THESE NEXT

IK+
■ Archer Maclean's sequel was a massive breath of fresh air to the fighting genre, and all he really did was add a third fighter. Actually, there was a lot more to it than that, with dazzling animation and intricately designed backgrounds that were full of life. A superb fighter that every C64 owner needs to play.

Bubble Bobble
■ The Commodore 64 had plenty of cracking arcade conversions, but this version of Taito's classic from Ste Ruddy was easily one of the best. Great chunky visuals, a stomping rendition of the original theme tune and all the main levels made for a frightfully authentic experience that left Spectrum and CPC owners fuming.

Paradroid
■ Andrew Braybrook was a master at making the C64 sing, and *Paradroid* is arguably one of his greatest efforts. Endlessly playable and ridiculously slick, it's a clever blend of genres that sees you taking control of the titular Paradroid and taking on a ship filled with dangerous robots. A true classic.

Project Firestart
■ Released by Electronic Arts in 1989, this epic adventure title may have borrowed elements from popular sci-fi films such as *Alien*, but it was so polished it really didn't matter. Huge in scope and years ahead of its time, it remains one of the C64's best action adventure games and really shouldn't be missed.

Armalyte
■ If you wanted to play decent shoot-'em-ups on an 8-bit computer you really needed a C64. Beautifully paced and featuring some truly stunning boss design and music, *Armalyte* is easily one of the best shooters on Commodore's hardware, and a must-play, even if you're not a hardened fan of the genre.

TOP 5 IMPORT GAMES

Ultima 1
While a little simplistic, the full package including maps and bag of coins is well worth hunting down. Prices have risen in the last couple of years though.

Avenger (MAX version)
■ The version released for the MAX computer in Japan. So much better than the obese invader attack that was released in the West, and quite a good conversion.

Castlevania
■ Konami NES games? On the C64?! You betcha. While not as good, it was certainly a cheaper way to play the game, and is guaranteed to make people double-take your shelves.

The Simpsons Arcade
■ This one surprises many people. Why Konami chose not to release it in Europe is a mystery. At the time it was a decent conversion, and still holds up fairly well today.

Oil Barons
■ If you're going to make a computer-assisted board game, then this is how to do it. Just look at it! The C64 kept track of all the facts and figures, leaving players to concentrate on strategy.

IMPORT THESE NEXT

Gyruss
■ For some reason now lost to history, this stunning port of Konami's excellent shooter was never released in the UK, something which is rather a pity. We'd urge you to track it down if you can though, for while the sprites look a little rough, the tight controls and super slickness more than make up for it. A truly impressive port.

Lost Tomb
■ Based on the old Stern coin-op, this is another highly impressive conversion that many European gamers will have never experienced. Similar in style to *Tutankham*, it involves you nipping around the tightly designed levels and grabbing as much loot as possible. Yet another excellent port that few gamers got to actually play.

Diamond Mine
■ An undiscovered gem, if you'll excuse the pun. Guide the mine trolley through the maze of dirt in many mines, collecting the diamonds and then returning to the home station. Like *Flicky*, you are rewarded with more bonus points for an ever-increasing line behind you, but watch out for the monsters who can steal all your gems!

Whistler's Brother
■ This is a clever little game from Broderbund, and quite possibly one of the earliest examples of using whistling as a fully-fledged game mechanic. A simple platformer of sorts, *Whistler's Brother* requires you to use whistles to direct your bookish brother around the game's 16 levels. An ingenious idea, well executed.
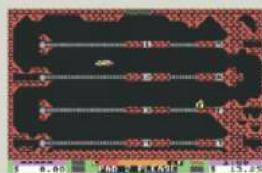
Space Taxi
■ Ignore the rather basic visuals and lose yourself in a ridiculously addictive action game as you fly your taxi around the 24 deviously designed stages. Limited fuel, thrusters and working landing gear all have to be mastered in order to become the best of the best, but it's so hard to put down you may well manage it.

The Collector's Guide

TOP 5 RAREST PAL GAMES

The Great Giana Sisters
■ Infamous even today, it isn't as hard to find as you may think. Nonetheless, obtaining a copy of this *SMB* clone, especially on disk, may still run you a pretty penny.

Bounty Bob Strikes Back (disk version)
■ The tape version is easy to find but both US and UK disk versions are like hen's teeth. The US version is also in demand from 5200 owners, as the box is identical.

Gauntlet 3
■ Reviewed and never released, yet some copies slipped out somewhere – probably US Gold's own software club. It's good too, making it more frustrating that it's so hard to find.

Double Dragon (cartridge)
■ Not the rubbish Melbourne House conversion but an almost-as-bad second attempt by Ocean, released on cartridge. Never sold in shops, and not many people know about it.

Wizard of Wor (original art)
■ It's not the game; it's the box. There are but a handful of examples known of this English language release in existence, and why it was changed to the more familiar purple-robed wizard version is unknown.

GET THESE NEXT

Katakis
■ Rainbow Arts was well known for squeezing every last drop of useable memory out of the C64, and *Katakis* was no exception. Heavily influenced by Irem's *R-Type*, it fell foul of Activision and was re-released after several modifications as *Denaris*. Needless to say, the original version is now pretty hard to find.

Moonfall
■ A late C64 title, released by the company that Hewson transformed into, it combines aspects of *Mercenary* and *Elite*, along with wire-frame graphics, to produce an interesting, challenging exploration and shooting experience. For whatever reason, it barely hit the shops and hence is one of those great but hard to find games.

Block Hopper
■ Just by the name you can guess which arcade classic this is a blatant clone of, and whoever was charged with designing the inlay cover left nothing to the imagination either. The annoying thing is that it plays a pretty good game of *Q*Bert*, but is so hideously rare that we're liable to have another Pope before you see a copy.

Congo Bongo (disk)
■ Ignore the tape-based version of Sega's isometric *Donkey Kong* clone and instead treat yourself to the disk version, which is a far superior offering, only let down by long loading times. Having said that, it's incredibly hard to track down, so expect to pay a pretty penny if and when you do finally manage to find it.

Satan's Hollow
■ Most of Commodore's arcade conversions were released on cartridge, but this one, oddly enough, only came out on disk. It's actually a pretty decent attempt to convert at the Bally/Midway original, which itself isn't that well known either. Evidently though, it couldn't have sold highly, and hence is fairly hard to find today.

THE JEWEL IN THE CROWN

Big, brash boxsets were much more a Nineties console creation, but there are some snazzy-packaged C64 games out there. One such example is the Mercenary Compendium Edition…
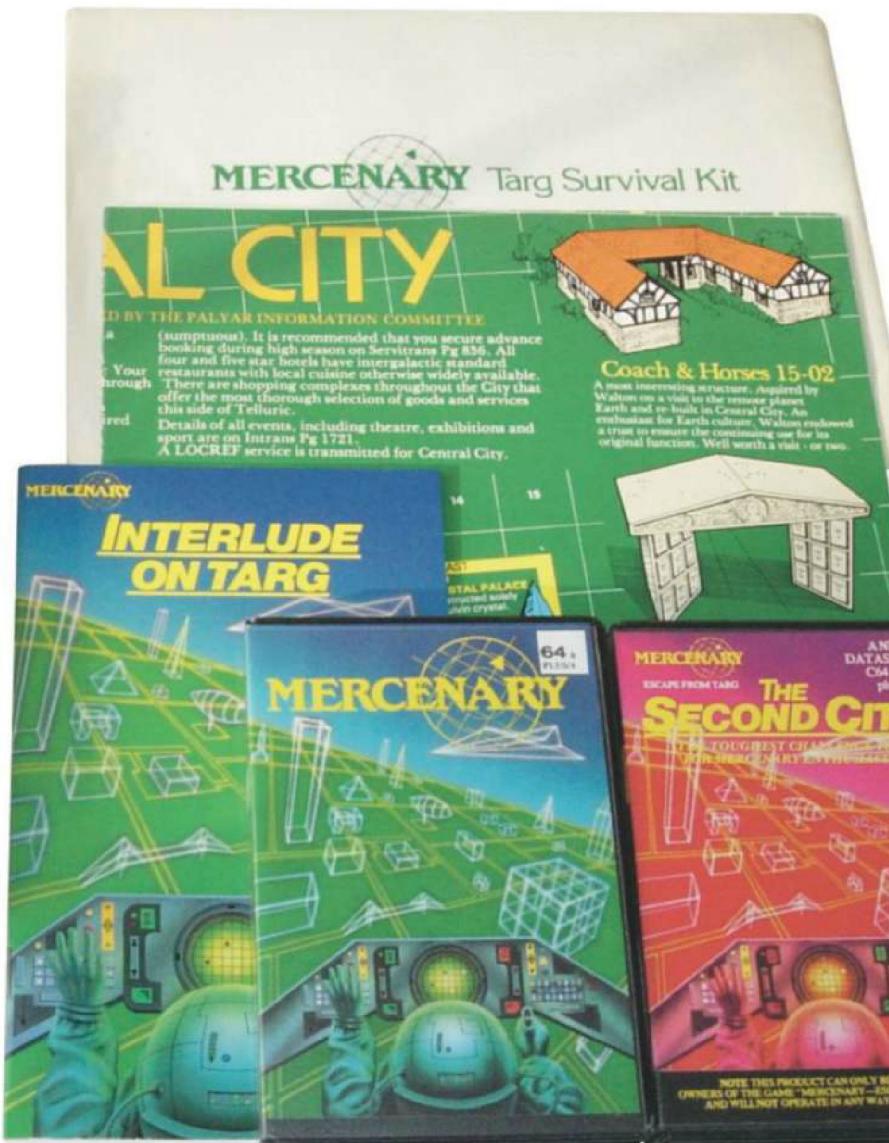
The Games

■ Inside, this special edition pack contains the original Commodore 64 version of *Mercenary* as well as the *Second City* expansion, along with a short novella that, if you read it closely, offers some hints about how to succeed in the game.

The Map

■ A large-scale map plots out the main attractions of Targ's main city, providing interesting details and facts not mentioned in the game, as well as one or two in-jokes. It's essential for planning a way to escape the planet with your pockets full of loot.
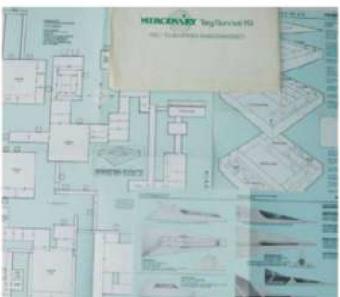
The Survival Kit

■ The Survival Kit is basically a set of blueprints, and has several useful layouts of the game's underground networks, including the location of the lift accesses. Aside from the one where the Winchester drive resides, of course…

☑ THE C64 GAMES YOU NEED TO OWN

Action Biker
Alien 3
Alien Syndrome
Aliens (UK Version)
Alter Ego
American 3D Pool
Ancipital
Apollo 18
Archon
Arkanoid
Armalyte
Arnie
Atomino
Avenger
Ballblazer
Barbarian
Bard's Tale, The
Barry McGuigan's World Championship Boxing
Batalyx
Batman: The Caped Crusader
Battle Chess
Battle Command
Battle Valley
Beach Head
Beach Head 2
Below The Root
Beyond The Forbidden Forest
Bionic Command (UK Version)
Blue Max
BMX Kidz
BMX Simulator
Bobby Bearing
Borrowed Time
Boulder Dash
Bounder
Bounty Bob Strikes Back
Bruce Lee
Bubble Bobble
Buck Rogers: Countdown To Doomsday
Bug Bomber
Buggy Boy
Cabal (UK Version)
California Games
Centauri Alliance
Champions Of Krynn
Chip's Challenge
Choplifter
Citadel

IK+

Entombed

CJ's Elephant Antics
Combat School
Crazy Comets
Creatures
Creatures 2
Cyberball
Cybernoid
Dan Dare
Dark Side
Death Knights of Krynn
Defender Of The Crown
Diamond Mine
Doomdark's Revenge
Dragon Wars
Dragonsden
Driller
Dropzone
Druid
Eidolon, The
Elvira 2
Emlyn Hughes' International Soccer
E-Motion
Encounter
Enforcer
Entombed
Exile
Fiendish Freddy's Big Top O' Fun
First Samurai
Fourth Protocol, The
Frankie Goes To Hollywood
Gauntlet II
Gauntlet III
Ghostbusters
Ghouls 'N' Ghosts
Grand Prix Circuit
Great Giana Sisters, The
Green Beret
Gremlins
Gribbly's Day Out
Guardian
Guild Of Thieves
Gunship
Gyruss
Hacker
Hardball
Hawkeye
Head Over Heels
H.E.R.O.

Hitchhiker's Guide To The Galaxy, The
Hunter's Moon
Hyper Sports
I, Ball
IK+
Ikari Warriors
Impossible Mission
Impossible Mission 2
International 3D Tennis
International Soccer
Into The Eagle's Nest
Iridis Alpha
Iron Lord
Ivan 'Ironman' Stewart's Super Offroad
Jumpman
Juno First
Kamikaze
Katakis
Kikstart 2

The Last Ninja 2

Knight 'N' Grail
Koronis Rift
Laser Squad
The Last Ninja
Last Ninja 2, The
Leaderboard
Legacy Of The Ancients
Lemmings
Little Computer People
Lode Runner
Lords Of Chaos
Lords Of Midnight, The
Lotus Esprit Turbo Challenge
Magic Candle, The
Mancopter
Maniac Mansion
Mars Saga
Master Of Magic
Mayhem In Monsterland
Mega Apocalypse
Mercenary
Microprose Soccer
Mission Elevator
Montezuma's Revenge
Monty On The Run
Moon Patrol
M.U.L.E.
Myth: History In The Making
Nam/Vietnam

EXTREMELY RARE	VERY RARE	RARE	UNCOMMON	COMMON	VERY COMMON
Games that have less than a few dozen known copies available.	Very hard to come by. Expect to see only a couple of copies per year.	You should be able to source these in a reasonable amount of time.	You won't find them straight away, but you will after a search.	Always just a click away for the average collector.	So common you'll find them in most bundles of games you buy.

Navy SEALS	☐
Nebulus	☐
Neuromancer	☐
Newcomer	☐
Night Shift	☐
Ninja Spirit	☐
OutRun Europa	☐
Pac-Land	☐
Pac-Mania	☐
Pang	☐
Paradroid	☐
Parallax	☐
Park Patrol	☐
Pastfinder	☐
Pawn, The	☐
Pistop 2	☐
Platoon	☐
POD	☐
Powerplay	☐
Project Firestart	☐
Project Stealth Fighter	☐
PSI-5 Trading Company	☐
Raid On Bungeling Bay	☐
Raid Over Moscow	☐
Rainbow Islands	☐
Revenge Of The Mutant Camels	☐
Revs	☐
Rick Dangerous	☐
Robocop 3	☐
Rocket Ranger	☐
Rodland	☐
Rollaround	☐
Samurai Warrior	☐
Scapeghost	☐
Scarabaeus	☐
Sentinel	☐
Sentinel, The	☐
Seven Cities Of Gold	☐
Shadowfire	☐
Sheep In Space	☐
Skate Or Die	☐
Slayer	☐
Sleepwalker	☐
Slicks	☐
Smash TV	☐
Space Crusade	☐

Spindizzy

Space Rogue	☐
Space Taxi	☐
Speedball	☐
Speedball 2	☐
Spelunker	☐
Spindizzy	☐
Spore	☐
Spy Hunter	☐
Spy Vs Spy	☐
Star Paws	☐
Starcross	☐
Steg The Slug	☐
Storm Across Europe	☐
Stormlord	☐
Strike Fleet	☐
Stunt Car Racer	☐
Summer Games 2	☐
Super Pipeline 2	☐
Super Sunday	☐
Supremacy	☐
SWIV	☐
Tank Attack	☐
Tass Times In Tonetown	☐
Tau Ceti	☐
Temple Of Apshai Trilogy	☐
Tenth Frame	☐
Tetris	☐
They Stole A Million	☐
Thing On A Spring	☐
Thrust	☐
Time Machine	☐
Times Of Lore	☐
Toy Bizarre	☐
Tracksuit Manager	☐
Trailblazer	☐
TRAZ	☐
Turbo Charge	☐
Turrican	☐
Turrican 2	☐
TV Sports Football	☐
Ultima 4	☐
Untouchables, The	☐
Uridium	☐
Warhawk	☐
Wasteland	☐
Way Of The Exploding Fist, The	☐
Whistler's Brother	☐
Who Dares Wins 2	☐
Wings Of Fury	☐
Wizard	☐
Wizard of Wor	☐
Wizball	☐
World Games	☐
Zak McKracken And The Alien Mindbenders	☐
Zenji	☐
Zig Zag	☐
Ziods	☐
Zolyx	☐
Zone Ranger	☐
Zork	☐

Collector Q&A

In addition to his insane knowledge of the system, Mat Allen also has a rather impressive collection…

■ **What drew you to start collecting for the C64?**
Actually, you could say I started right from the moment I got a C64 because I've barely let go of anything in more than 25 years. There's probably an inherited packrat gene from my father somewhere in the mix!

■ **How long have you been collecting so far?**
During the Nineties, I went on a bit of a pursuit via various mail order firms to fill a lot of gaps in my collection, so that's probably when it really began. The cartridge interest started in 2000 when I worked on the C64 section for the Digital Press website.

■ **Why did you buy the games you have so far?**
Originally it was to acquire games I hadn't bought or played during the Eighties, especially on disk as I was a late owner in that respect. Later on it was games I only just discovered, and games that needed digitally preserving for projects such as Gamebase64.

■ **What advice do you give to potential collectors?**
Don't go wild, unless you're trying to fill a lot of gaps at the same time. With so many games out there, pick and choose the ones you wish to obtain, be it titles from a certain company, genre or style. My original criteria was most games given over 80% in *Zzap!64* that I didn't own!

■ **What is the cornerstone of your collection?**
That's like asking to pick a favourite child. Obtaining the *Crystal Castles* prototype cartridge was a coup. *Double Dragon* on cartridge and *Gauntlet III* are up there as well.

■ **What would you say is the hardest game to find that you've bought?**
I've got quite a few one-offs here, mostly on cartridge. Getting some of the Japanese MAX and Polish titles was a lesson in good fortune, and being in the right place at the right time. And I must say thanks to Andy 'Thalamus' Roberts for selling me the copy of *Gauntlet III*.
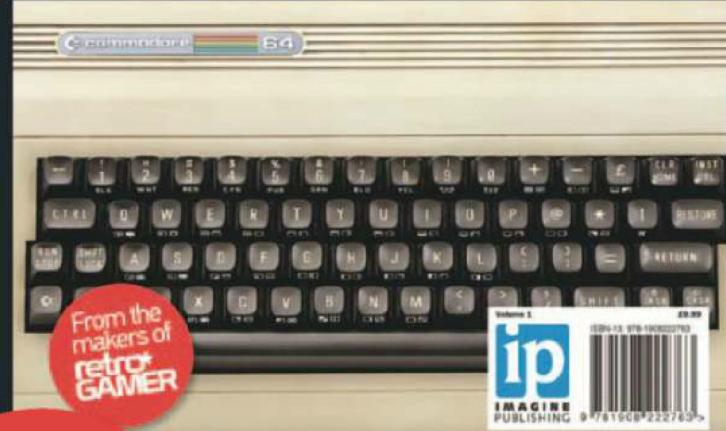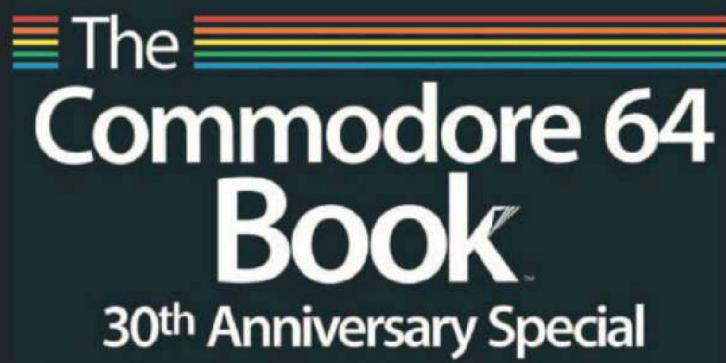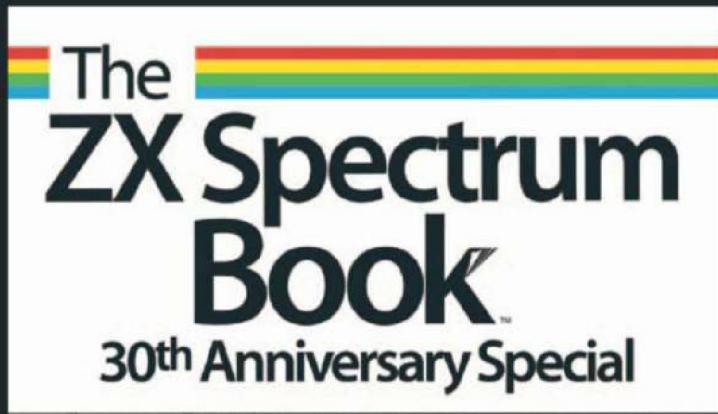
■ **What is the most you've spent on any one title?**
Surprisingly not that much, compared to other systems I collect for. The most was probably £150 for one of the Dinamic cartridge titles. There have been a few others approaching that figure, but that is the highest.

■ **What are you still missing?**
I'm still looking for an original of *Chuck Rock*. If it even exists, as no one I know even owns it. Aside from that, a Japanese C64 as well.

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30th Anniversary Special

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Volume 1

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IMAGINE
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DIGITAL EDITION

The print version of this bookazine was a two-sided 'flipper'. This digital edition has been reformatted to allow for easy reading

Classic games • Hardware celebrated • Studios revisited