ISSUE 3

EIGHT BIT

On screen:
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Amstrad 64K Microcomputer  (v1)
©1984 Amstrad Consumer Electronics Plc
            and Locomotive Software Ltd.
BASIC 1.0
Ready
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ALAN SUGAR'S AMSTRAD CPC 464

THE APPLE ADVENTURER

HACKING FOR INFINITE LIVES

POND SOFTWARE

PLUS: PROGRAMMING SPRITES PART 2, INTERVIEWS AND GAME REVIEWS!

IN THIS ISSUE!

THE COLLECTORS GUIDE TO THE:

AMSTRAD

CPC ▮▮▮ 464

Amstrad, known for making cheap n' cheerless amplifiers and tuners entered the home computer market in 1984 with a computer that was a hit across many European countries. Here's your collectors guide to the Amstrad CPC 464.

pond

We meet the team of Pond Software and have a look at the cool software they've created.

How was Pond software founded?

Vanja Utne: I had drawn some asteroid sprites for Andreas and as a bonus I did a little green alien in a spacesuit, where he saw it he decided we had to do a game together. He suggested naming the little alien "Spaceman Splat", and that was how our first project started, to be. Andreas had already released some games for other platforms using his solo brand SDW Developments, so we decided that Pond logo on the label too. I had drawn a Pond logo on the Amiga back in 1991, and thought it would be a fun name to release timip under. Shortly after we released the game, Pond grew from a solo band to a proper hobby and game team, with Roy, Graham and Andreas joining, followed by Craig, and finally Ant, who since loved to brew that we but keeps sneaking off to work on his own games.

How did you get involved in the Commodore 64 and game development?

Vanja Utne: I've always wanted to make games, but usually something got in the way, like my lack of programming skills, and I have a pile of unfinished game projects from the last 20+ years. Teaming up with the others in Pond

Are there other computers besides the Commodore 64 that you are interested in?

Vanja Utne: Absolutely. I was given the chance to do the loading screen for Magical by Ivan J. Martinez on the Amstrad CPC, last year, that was a lot of fun. I've done some graphics for the MSX-1 as well. I've done some graphics I coded a lot on the Vic 20 and the years, I've primarily interested in old 8 bit computers, but I like my Amiga and Atari ST(F) too. We've already started branching out a bit with the Atari 2600 version of Spaceman Splat and have games planned for other platforms besides the C64 and 2600 as well.

The Pond software logo looks like the Ocean software logo, was that an accident?

Vanja Utne: They were a great ocean, we are a tiny Pond... It was completely intentional, and meant as a bit of a tribute to Ocean and Bob Wakelin, who designed the original logo and a lot of their amazing covers, he's brilliant. I did consider doing a completely different logo design at one point but one of the Pond members, who used to work at Ocean, insisted we keep it the way it is.

Have you met the other members of the team in person?

Vanja Utne: Not yet, no. We work well together, despite being spread out all over the

The Apple Adventurer

By Stuart Williams

Stuart Williams looks at the early days of Core Adventure, when I started to wonder as in 1975 is, the whole point of the game was to Adventure, Colossal Cave, or ADVENT. Colossal world with which he or she could interact, explore the phase with a story that seemed to have an alternative...

...the 36-bit DEL PDP-10 mainframe computer. The origins of all the adventure games which followed. And words might depict...

Typically, as you might expect given the geeky nature of computer games, Fantasy, a whole host, horror or also classic, and variations on these tropes, tend to be the most popular classes for adventure game storylines, but almost any subject can lend itself to the genre.

In the beginning

The very first adventure game was Colossal Cave Adventure, often referred to simply as Adventure, Colossal Cave, or ADVENT. Colossal Cave was developed in 1976 by Will Crowther, originally created on the 36-bit DEC PDP-10 mainframe computer. The origins of all the adventure games which followed. And words might depict actions, varied on the Apple II that followed.

The basic premise of the game was that the player would control a central character in the game's storyline using simple text commands...

A verb-noun parser was used to interpret the instructions, allowing the player to interact with others through the program as a basic...

Later text adventures can actually be enjoyed purely for their writing and their atmosphere...

But the whole point of a text adventure game is really to tell a story, and allow the player to involve involved with its twists and turns, and its obstacles and setbacks, and its successes, to its wants, much like a live television drama series, characters, objects and happenings. Unsurprisingly, Colossal Cave Adventure is in a category all of its own...

What's in an adventure game?

Adventure games are also known as Interactive fiction, where the player is able to take part in, or influence a fictional storyline by making choices within the game to solve puzzles, pick up or move objects, solving mazes, dealing with other characters...

In 1977, Crowther was approached by fellow...

EDITORIAL

Welcome to Issue 3 of Eight Bit magazine. Our featured article this issue is the Collectors Guide to the Amstrad CPC 464. Stuart Williams supply us with another excellent article, The Apple Adventure. We also meet the team of Pond Software and check out some of their fantastic games.

Due to the large amount of excellent content in this issue, The Tech Zone and Programming the 8-bits were put on hold but they will return in Issue 4. The Retro Pi article is also being pushed back to a later issue.

Next issue we'll be covering the impressive Atari 8-bit range of computers along with interviews, tech articles and of course, the latest game reviews.

Enjoy the magazine,

The Eight Bit Team

THE MAGAZINE FOR COLLECTORS AND USERS OF EIGHT BIT COMPUTERS

ISSUE #

EIGHT BIT

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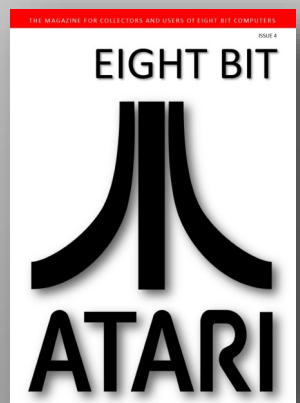
Issue 4 Coming Soon...

THE COLLECTORS GUIDE TO THE:

Amstrad, known for making cheap n' cheerless amplifiers and tuners entered the home computer market in 1984 with a computer that was a hit across many European countries. Here's your collectors guide to the Amstrad CPC 464.

CPC 464

AMSTRAD CPC 464

Launched on the 11th of April 1984 by the UK company Amstrad and released across Europe and Australia the same year, the CPC 464 entered into an already crowded market to compete with the Commodore 64 and Sinclair Spectrum as well as countless other systems. Released two years late it had to be something different to survive.

What made the CPC different was that it was an all in one package with it own screen and datacorder. Two versions of the 464 were available at launch, one with a green screen at £249 Sterling or you could splash out for the colour screen for £359 Sterling. The datacorder was built into the computer so there was no need for an external tape player. The computer was powered from the monitor making it a breeze to set up with only one power plug required.

FIRST IMPRESSIONS

When looking at the CPC, the first thing you notice is its length at just under 57cm, just a inch and half shy of 2 feet. The build in cassette player does add to this length but even without it the 464 would still be longer than one would expect. It's depth is 65cm and sits at 7.2cm high at the back and 5.1cm at the front which makes for awkward typing if you like to rest your hands on the desk.

Overall build quality is good. It creaks a little when lifted, so does the screen but not excessively. The keyboard is nice to type on. It sits somewhere between been better than the Commodore 64 but not as good as say, the Atari 800 XL. The keys are colourful and well laid out, apart from the cursor keys which are awkwardly placed at the top right of the computer in a similar style to most MSX computers.

The GT65 green screen and the CTM 644 colour screen were nothing special but they did the job and had a sharper image than a typical TV of the same time period. 5 volts of power was also supplied to the CPC 464 by the screen. The 6-pin DIN connector on the back of the 464 fed separate lines of red, green and blue to the screen, resulting in a picture quality that was far superior than computers that used a TV modulator or composite video. There was very little bleeding of graphics and it was of a quality that one could reasonably work with, even in 80 column mode.

ALAN SUGAR , FOUNDER OF AMSTRAD. PICTURED WITH THE CPC 464
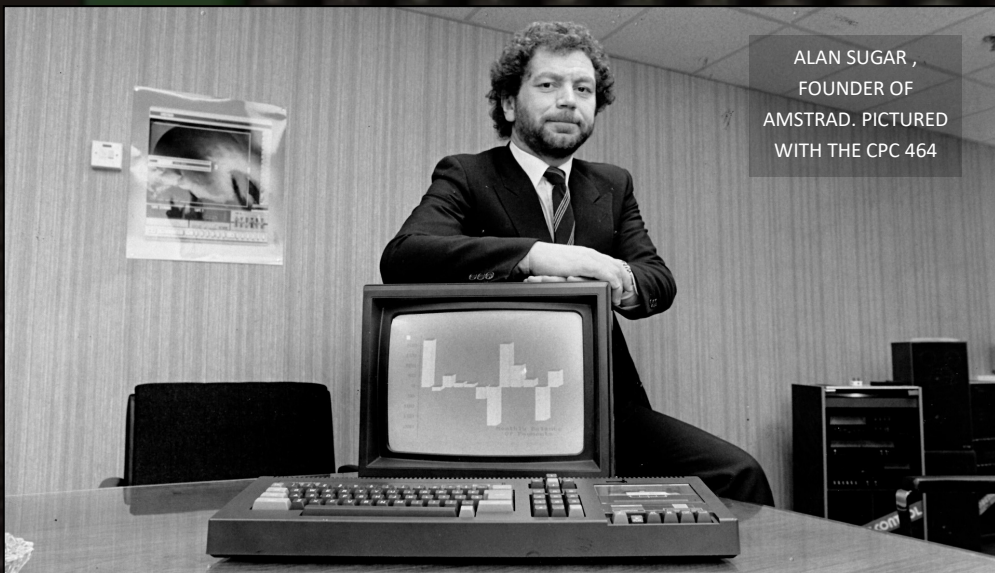
THE SCREENS

While the green screen GT-65 had a sharper image, the colour CTM-644 was more desirable. The coloured screen was also bigger with a 14 inch tube compared to 12 inches on the GT-65.

Those who had an Amstrad with a green screen didn't had a option to purchase a colour one in the future. Instead they had to rely on a MP1/ MP2 device. Not only was it a RF modulator, it also served as a power supply for the CPC. The picture quality was poor in comparison to the supplied screens.

Later in the 1990's when RGB SCART became more common, people began to make custom SCART cables which produced better results. However this did mean that now the CPC required an external power supply (as the CPC was originally powered by the monitor) but for the 464 all that was needed was an 2 Amp, 5 Volts DC PSU. Things get slightly more complex when it came to the disk based CPC 664 and 6128 as they also need a 12 Volts supply to their 3 inch disc drives.

COMPARING BATMAN ON THE CTM-644 AND GT-65 SCREENS

SCHNEIDER BRANDED MP2 RF MODULATOR

While the GT-65 green screen was sharper (for the 1980's) it was best to leave it to word processing and spreadsheets as playing games in 16 shades of green is not as enjoyable as playing in colour.

Turning on the computer revealed yellow text on a blue background which was eye pleasing. The default graphics resolution was 320 x 200 which translates to 40 x 25 characters. However there was no real text modes on the Amstrad as you would find on the Commodore 64 for example. All graphic modes take up 16KB of memory. More on this later.

LOCOMOTIVE BASIC

The supplied BASIC which was based on the BASIC supplied to the BBC Micro was not only fast but allowed good control of the CPC audio and graphics capabilities. The reason for this was that it was written specifically for the Amstrad and therefore performed better than the generic Microsoft BASIC supplied to the Commodore 64 and MSX computers. Amstrad considered licensing Microsoft BASIC to be too expensive so it picked Locomotive BASIC as a cost saving exercise. Ironically, Locomotive BASIC turned out to be much better with its comprehensive graphic and audio commands as well as the ability to use interrupts.

Locomotive BASIC contains many graphics commands to plot pixels to the screen, draw lines and to change background and graphic colours. The only downside was the version of BASIC supplied with the 464 was BASIC 1.0 and didn't had the FILL command and a few more improvements as supplied with BASIC 1.1 on the 664 and 6128. The FILL command allowed a area of screen to be filled in a certain colour. For example, a person could use the DRAW command to draw a star on the screen and then use the FILL command to colour in that star.

The audio commands allowed for control over the Amstrad's audio chip such as envelopes, pitch, noise, volume levels and so forth.

START UP SCREEN OF THE CPC 464

There was also an impressive WINDOW command that allowed you to define an area of the screen for use with its own text stream. This enabled text to scroll independently from within that window.

The most impressive feature of Locomotive BASIC is the ability to use interrupts. The AFTER commands jumps to an interrupt after a specific amount time and the EVERY command jumps to a interrupt at certain intervals. The example below explains it well:

**10 EVERY 15,1 GOSUB 100
20 PRINT "AMSTRAD CPC 464"
30 GOTO 20**

**100 PRINT "EIGHT BIT MAGAZINE"
110 RETURN**

Lines 20 and 30 are easily understood but look at line 10, the EVERY command. The 15 is the
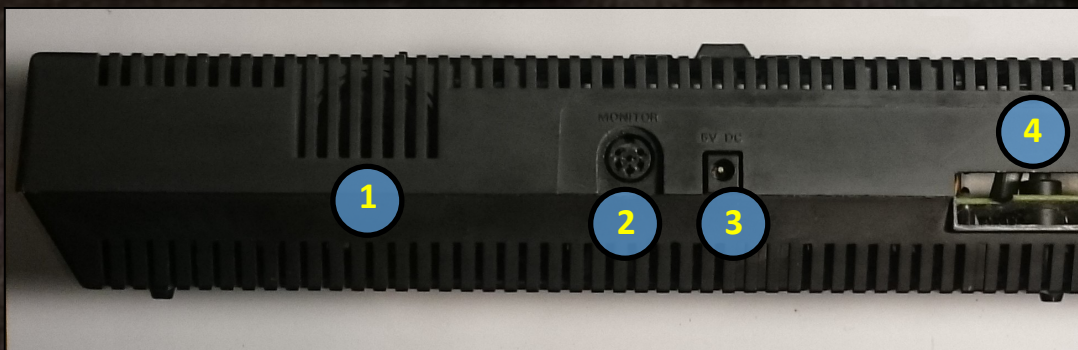
BACK OF A EARLY MODEL CPC 464, LATER MODELS HAD THE JOYST

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AMSTRAD CPC 464
AMSTRAD CPC 464
AMSTRAD CPC 464
AMSTRAD CPC 464
EIGHT BIT MAGAZINE
AMSTRAD CPC 464
AMSTRAD CPC 464
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EIGHT BIT MAGAZINE
AMSTRAD CPC 464
AMSTRAD CP
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EXAMPLE OF USING INTERRUPTS

time interval in 1/50th of a second and the 1 represents the timer interrupt. There are 4 interrupt timers numbered 0 to 3, with 3 having the highest priority. GOSUB stands for GO TO SUBROUTINE. So in this example every 15/50th of a second BASIC will go to the subroutine at line 100 which prints the text "EIGHT BIT MAGAZINE" and line 120 RETURN command ends the subroutine and jumps back to wherever BASIC was before the interrupt.

BEHIND THE AMSTRAD CPC 464

1. Audio output is provided by one 4cm speaker powered by a internal amplifier. The volume output was quite high considering the small size of the speaker.

2. RGB video output to the monitor provides a good crisp display in comparison to RF output and even composite.

3. 5 Volts DC which is usually powered from the monitor.

4. Marked as "Floppy Disc" it was instead a 50 pin edge connector expansion socket as marked on the CPC 664 and 6128. There's no dedicated floppy disk socket. However an external floppy disk drive can be used with the addition of a DDI-1 interface plugged into the back of the expansion socket.

5. 7-bit Printer port.

6. Atari style joystick port with support for two joysticks, by plugging the second joystick into the first. Two fire buttons per joystick is supported but most games used one button.

7. Audio output in stereo. An amplifier is required.

AMSTRAD FD-1, 3 INCH DISK DRIVE WITH A DDI-1 INTERFACE CONTAINING THE AMSDOS ROM
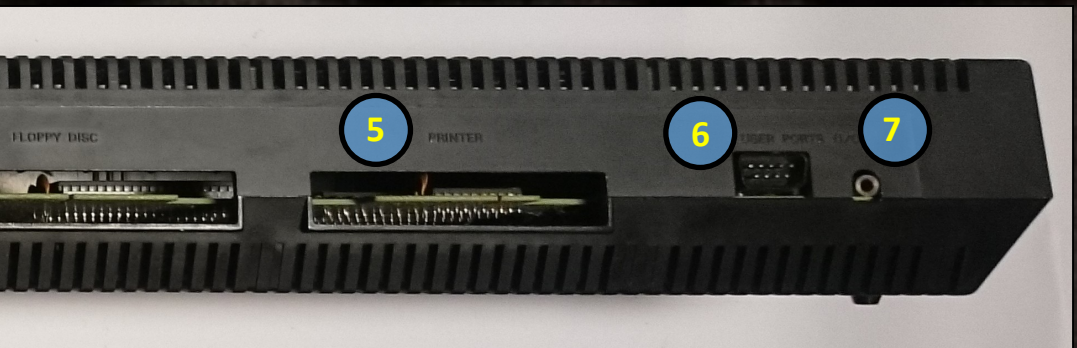
ICK AND AUDIO JACK ON THE LEFT HAND SIDE OF THE COMPUTER.

THE GRAPHICS

There are only 3 screen modes, 160 x 200 (20 x 25 characters) 16 colour mode, the mentioned 320 x 200 mode mentioned earlier which has 4 colours and finally the high resolution 640 x 200 mode in 2 colours which is capable of displaying 80 x 25 characters of text. Each graphics mode has a impressive (for 1984) colour palette of 27 colours.

Each of the 3 screen modes are bitmapped graphic modes taking up 16K of RAM each. The reason the CPC takes up one quarter of the system's memory compared to the Sinclair Spectrums 6K and the Commodore 64's 8K is because the CPC doesn't use colour attributes to save on video memory. For example, in Mode 0 (160 x 200) you can place any of the 16 colours anywhere you want on screen. Colour clash doesn't exist. This leads the way to beautiful looking graphics, making full use of the CPU vibrant colours but it does task the processor as the CPC has to shift more screen data during games. This resulted in some games running slower and / or jerkier when compared to rival machines, the C64 and ZX Spectrum.

Unlike the Commodore 64 the CPC didn't have hardware sprites meaning that software programmed sprites burden the CPU but the CPC made up for this with a faster processor.

SCROLLING HELL

The bigger problem was the CPC lack of ability to scroll or should I say the perception that the CPC couldn't scroll. Scrolling screens vertically was fine as evident with the word processors available at that time but when scrolling horizontally it was a different matter. In the book "Ocean: The History" (Fusion Retro Books - www.fusionretrobooks.com) it was mentioned that Ocean Software had trouble scrolling the screen vertically on the CPC, suggesting that the only way to do it was to turn the screen on its side!

THE GAME STORMLORD MAKING GOOD USE OF THE CPC 16 COLOUR NON-ATTRIBUTED GRAPHICS.

Luckily Ocean figured it out and became one of the best software companies for making good Amstrad ports. Unfortunately many games released for the Amstrad did have horrific scrolling. However when programmed correctly the scrolling was reasonably smooth although usually not as smooth as the hardware scrolling built into the Commodore.

HARDWARE

Audio is provided by the General Instrument AY-3-8912 programmable sound generator (PSG), as used on the Atari ST and MSX computers. It provides 3 channels of audio

THE 1987 GAME, GRYZOR DID AWAY WITH SCROLLING ALTOGETHER FOR THE CPC RELEASE AND ENDED UP BEING A FANTASTIC GAME NONETHELESS.

with configurable square waves, white noise or both. While it wasn't designed to do so, the chip can play back digital audio, This was used in various games to produce in-game speech.

The CPU is a 4 MHz Zilog Z80A, however due to video limitations, CPU instructions had to be kept to multiple of four resulting in an effective clock rate of about 3.3 MHz.

There was a 50 pin expansion port as well as a 7-bit printer port. It also contained one joystick port but the second joystick could be added by plugging it directly into the first joystick if it was one of the Amstrad JY1 or JY2 models.

While never going to have the reliability of a disc drive, the tape drive was reliable enough. Programs saved to good quality cassettes loaded perfectly. The same could not be said for cheaper non-branded cassettes. Loading speeds were nippy enough for tapes, being either 1,000 or 2,000 baud. While looking back to my childhood it seemed that games took an age to load but in reality most games loaded well below the 15 minute mark.

ADDING A DISK DRIVE

The Amstrad FD1 disk drive for the CPC 464 came with a DDI-1 interface which contained the disc drive controller. It also came with a copy of the CP/M operating system on disc.

The 3 inch disk drive was unusual as 3.5 inch was becoming the standard. While they were a little more robust than the Sony 3.5 inch standard they were more expensive, slower, stored far less data and discs had to be physically ejected and turned in order to access side B. Once formatted, each disc could hold 178K per side. While slower than a 3.5 inch drive, software loaded in seconds instead of minutes.

It was fairly common for serious CPC owners to add 3.5 disk drives to their computers. However to access the larger capacity of the disc a different disk operating system was needed, for example, a Parados ROM.

THE AMSTRAD CPC 464, 472, 664, 6128 AND 464 PLUS RANGE. MORE ABOUT THE DISK BASED SYSTEMS AND THE PLUS RANGE IN A LATER ISSUE OF EIGHT-BIT

AMSOFT 3 INCH FLOPPY DISC

INSIDE THE AMSTRAD CPC 464

1. Zilog Z80 CPU running at 4 MHz

2. CRTC 6845 stands for Cathode Ray Tube Controller. It's responsible for generating the video signal for the CPC.

3. 32K ROM chip with 16K for Locomotive Basic 1.0 and the other 16K for the Amstrad Firmware.

4. The AY-8912 sound chip produces 3 channels of audio with 8 octaves plus a noise channel.

5. Under the heatsink is the Amstrad 40007 gate Array chip. It is used to generate clock signals, converting RAM data to RGB output,

handling ROM signals and generating interrupts. Later models used the 40008 and 40010 versions which ran cooler and were generally more reliable. The 40010 used a different pin layout. The board in the example below has a space for the 40010 version as well as the socketed 40007.

BENEATH THE HEATSINK, THE AMSTRAD 40007

6. The 8255 PPI (Programmable Peripheral Interface) is a general purpose Input / Output Chip. In this example a Toshiba version is used but there were also two different versions from NEC.

7. 64 Kilobytes of RAM made up of eight 8KB MN44164P-15A RAM chips. 42KB was left for BASIC.

8. Logic chips.

9. Keyboard connector.

10. Connector to the built in data cassette recorder.

11. Location of where the datacorder goes. There is also a useful tape counter.

12. To the right of the computer is volume control and a on/off switch as seen below.
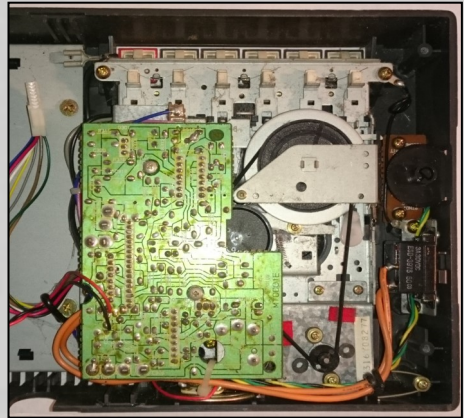
UNDERNEATH THE DATACORDER
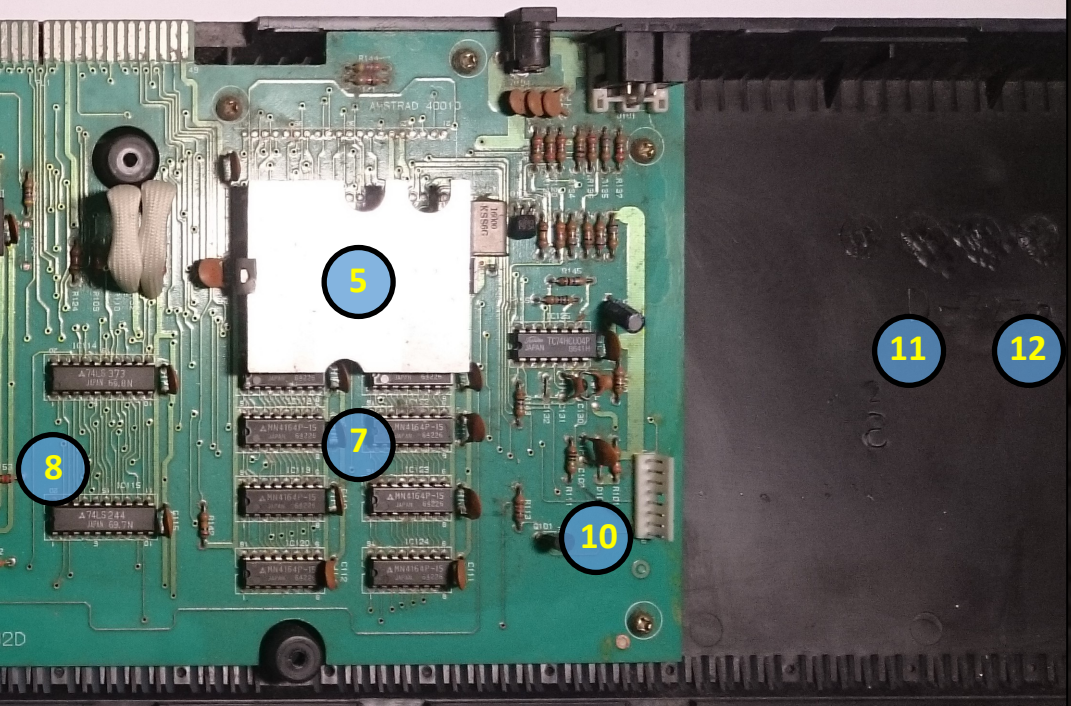
SOFTWARE

While the 464 was considered a computer for gaming as well as for serious stuff, the 664 and 6128 were considered to be more geared toward business with their built in disc drives. Plenty of business software were available such as word processors, spreadsheets and accountancy software which worked well on the mono 640 x 200 pixels, 80 column screen mode. A good keyboard, a dedicated monitor and support for CP/M made the CPC one of the best 8-bit computers for business use. There was even desktop publishing software and a route planner available for the 8-bit.

SPECTRUM PORTS

Due to the Sinclair Spectrum being more popular in the UK than the CPC, many games released in the UK tended to be ported directly from the Spectrum version to save time. This was a fairly easy process as both computers shared the same CPU but it often resulted in a poorly ported game.

The game Bionic Commando showed how bad a 'Speccy Port' could be. In comparison to the Spectrum version the game played slower, there were far less colours and the screen size was much smaller. Issue 37 of Amstrad Action summed it up perfectly: "You are the green and black figure trying to avoid or kill the green and black figures hiding in the green and black scenery." A tragedy considering the graphic capabilities of the CPC.

WHILE STILL FUN TO PLAY, THE AMSTRAD CPC VERSION OF BIONIC COMMANDO WAS A QUICK PORT OF THE SPECTRUM VERSION.

Such games gave the Amstrad CPC a reputation of being a weak computer for playing games. This wasn't a problem for games released in other countries where the CPC was popular, such as France and Spain. Games made for the CPC in those countries were created directly for the CPC and took full advantage of its hardware. Also, luckily, not every game made in the UK was a 'Speccy Port'.

OVERALL

The Amstrad CPC 464 is a fantastic computer that arrived two years too late which meant it always played third fiddle to the Commodore 64 and Sinclair Spectrum. It was virtually unknown in North America where Amstrad didn't even try to market it there. Probably a wise decision considering the foothold the Commodore 64 had. As mentioned above, it did well in parts of Europe and fairly well in Australia for the first few years. The CPC range went on to sell over 3 million units until 1990 when the PLUS range was launched.

Overall, as a computer the CPC is a well built and interesting computer, especially with an added disc drive and CP/M. Using it for games is also fun with a good number of 8-bit games having their best version on the CPC. It still enjoys an active community in Europe and Australia. Well worth being a part of your 8-bit collection.

TASWORD MAKING GOOD USE OF THE CPC'S 80 COLUMN MODE.

ROBOCOP (1989)

TURRICAN II (1991)

SMASH TV (1991)

RENEGADE (1987)

DRILLER (1987)

WEC LE MANS (1988)

OPERATION WOLF (1988)

SWITCHBLADE (1989)

GRYZOR (1987)

F-16 COMBAT PILOT (1991)

HEAD OVER HEELS (1987)

PRINCE OF PERSIA (1990)

ELITE (1984)

CHASE HQ (1989)

GAUNTLET (1987)

FANTASY WORLD DIZZY (1989)

Richard Bayliss is alternatively well known in the C64 community, and infamous in the C64 demo and cracking scene. He is known for his many SEUCK games, SID tunes, and finally his own original C64 games such as Trance Sector, X-Force and Sheepoid.

I chatted with Richard on Facebook recently about his life with the c64, his music and coding career, and what's in store for the future. Read the interview below.

DAMIEN: When did you first use a C64? What is your first memory?

RICHARD: My first ever computer was a Commodore VIC20, which was shared with the family. It was really difficult finding games for the VIC20, and classmates at my local school suggested I should get a Commodore 64. I asked my parents for a C64 as my next Birthday present. I ended up with one on Christmas day, with a tape deck, light fantastic games pack, Defender 64 light gun and also SEUCK.

DAMIEN: That explains your well known fascination with SEUCK :-) Did you create many SEUCK games back in those days?

THE INTERVIEWS

DAMIEN CAYNES INTERVIEWS RICHARD BAYLISS AND GEORGE BACHAELOR INTERVIEWS NICK BRUTY

RICHARD: I created loads of games using SEUCK in the past. I even remember submitting a game, which I made with friends for Commodore Format magazine. The game in particular was called Snow Storm. Unfortunately the game with many other creations were long lost, due to broken tapes and faulty disks, which eventually got thrown away. I was very obsessed with the Nyaaaah! series in the 1990's. Now today the Nyaaaah! games are a thing in the past.

DAMIEN: So what games inspired you to get into design and development?

RICHARD: There have been so many C64 games that were created in the past. A lot of great commercial titles inspired me to create new stuff for the machine. Subterranea and Powerama by Hewson inspired me to create X-Force, with Saul Cross doing the graphics. Sheepoid was inspired by Jeff Minter's fun Lazer Zone game, which I created for a retro gaming event for the big screen in Oxfordshire.

DAMIEN: Which SID musicians inspired you to become a SID musician?

RICHARD: A very difficult one to answer here. Mainly because I learned to compose SID music when I used to have Public Domain Utilities tapes and disks. I used to mess around with the music editors, and decided to compose tunes with various programs such as Dutch USA Music Assembler, Voicetracker, Future Composer, Demo Music Creator, etc.

DAMIEN: Which coders inspired you to become a coder?

RICHARD: Various programmers. Probably too many to name :-)

**DAMIEN:** Any one prolific game developer in particular that takes your fancy? :-)

RICHARD: Jon Wells. :-) Because of his talent in enhancing SEUCK games, it made me want to do the same thing :-) Archetype was a great example.

DAMIEN: When did you start programming and on what platform?

RICHARD: I started programming in 1994, using BASIC on the C64. I created my first ever game, which was called CIDCOM. A simple reaction game, in which eventually was turned into 'Coloured'. The game also involved IRQ music player and custom made charsets (Which I learned about in a commercial UK C64 magazine).

DAMIEN: Have you ever coded an intro or a demo?

RICHARD: Not a proper scene destro or anything like that. I did however program loads of TND intros to link my games and tools with. Had a lot of fun with that as well.
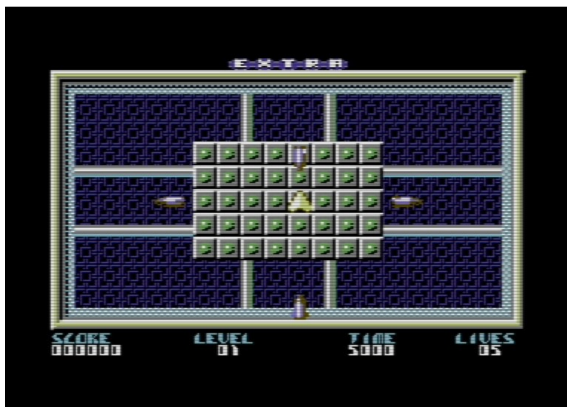
DAMIEN: Who are your favourite demo scene coders?

RICHARD: Graham/Oxyron coded some really awesome stuff. Also Censor Design did amazing demo effects.

DAMIEN: What was your first SID tune, and which SID release are you most proud of?

RICHARD: I cannot remember my first every SID tune. It has been a couple of decades or so. However my most favourite SID tune I composed has to be Zap Fight 2 - Title Music.

DAMIEN: What is your favourite SID production software, and why?

RICHARD: On a native C64. DMC V4.0 and DMC V5.0. On PC GoatTracker V2.7 (That is the main composer I used to make hard thumping soundtracks for games like Trance Sector, X-Force :-)

DAMIEN: You're infamous for your love of SEUCK, what's your favourite unmodified SEUCK game you have released?

RICHARD: Nyaaah! 9. It was different, and quite funny. You could move up and down ladders and lick the baddies into oblivion. It was very laughable and fun to make. Of course, I am done with Nyaaaah! games now.

DAMIEN: You've been running SEUCK competitions for several years now, what are your favourite releases that have come from those competitions?

RICHARD: Pour Le Merite by Bamse was good. It felt like a true classic retro shoot 'em up with some potential. Stormbird by Eleanor Burns was absolutely breath-taking. A great homage to the 1942/1943 inspired games. Alf Yngve's Forgotten Forest was brill, and as an extra prize. I submitted it to Shoot Em Up Destruction Set 2 as a bonus game. There were quite a lot of outstanding entries submitted to past time competitions. Sheer Earth Attack by Gaetano Chiummo had really nice graphics and music, etc. Out of all of the games from the compo. My number 1 choice has to be Gigablast by Alf Yngve. What a stunner of a game that was.

DAMIEN: Tell me about the other game concepts you have planned for the future?

RICHARD: I am working on the final version of my single screen platform game, Vortex Crystals, which now feature alien teleporting - giving the player the chance to escape before it gets killed. Other features are to include a better front end, hi score table. YogiBear/ Protovision might be doing music for the game

as well. Also the new version of the game features in game sound effects. Sen2itive is another game I'm itching to do, after seeing the awesome Sensitive puzzle game, back in the 1990's. A game in which contolled a blue ball which has to destroy all the yellow radioactive tiles, and reach tthe exit. There's also a SEUCK Redux game, which Alf Yngve and I are working on, called Precinct 20 - Dead Strange. A horror game with big surprises. I also hope to do a vertical scrolling shoot 'em up, but not SEUCK this time :-)

DAMIEN: Excellent, we certainly can't get enough of your original game concepts, and can't wait for the next one! Thanks for taking the time to talk to us!

RICHARD: No problem.

THE 2ND INTERVIEW

In the Late 1980's and early 1990's, Computer Graphic Artist, Nick Bruty worked on some of the Amstrad CPC's (and other 8-bits) most graphically amazing original game titles such as Trantor: The Last Stormtrooper, Savage, Smash TV, Extreme and Dan Dare 3 – The Escape.

I was very fortunate to be able to interview Nick Bruty, who I must thank him greatly, for providing a small glimpse of Amstrad CPC gaming in the past and how it all began for him.

GEORGE: So how did it all begin for you with video games ? How old were you and can you remember what was your first experiences with video gaming ?

NICK: Our High School had some ZX81 but I was too young to get into the classroom. It was very frustrating. I would find would some old programming magazines and try to work out what they were doing. It wasn't till 1983-4 that I got my first computer, a ZX Spectrum for Xmas.

I still had no idea what I was doing and there was no internet to help but at least I could experiment myself and the simple Spectrum was the perfect machine to learn on.

I've always been visually based so one of the first things I did was to display the contents of Memory to the screen. Then I could scroll through memory just looking at what the machine was actually doing. Seeing what parts of memory it used the most. How some parts were faster than others. For me it was the equivalent of seeing the Matrix for the first time.

GEORGE: How did you get your start in being a graphic artist, can you recall your very first paid job and the very first game you did artwork for?

NICK: I was in high school London with my

school friend David Quinn, who later went on to code Trantor on the Spectrum. We were both heavily into games and he was teaching himself how to code. He wanted to apply for a programming position and was working on some sprite routines. He had no art skills so I helped him out drawing some animated sprites. We were both just kids and I was totally amazed when he got the job. The company then relocated down to Brighton and I was quite bummed to be losing my close friend who shared my passion for games.

Shortly after he called me and said how impressed they were with my art and how I should come down and visit him and see what happens.
I worked on some new sprites and headed down. It was kind of an odd situation. I went into the company and everyone was nice but there was no formal interview. As if nobody knew why I was there but just accepted that I was. David set me up at a station and I just started making art for his game. So I just kept going in each day and started work on other projects until a week or so later the owner pulled me into his office. I had no idea what he was going to say, what are you doing here, who the hell are you! But he just said "nice work, I suppose I should start paying you". The first game I worked on was V for the Spectrum. Based off the original alien invasion TV show in the 80's.

THE 2ND INTERVIEW

GEORGE: What was your first ever project on the the Amstrad CPC ?

NICK: I think it was Mission Impossible. I was converting the Art from the C64 and had never used an Amstrad before. It was my first time dealing with the double pixel mode. Its one thing if you are creating an original game on the Amstrad where you can design around the resolution but the C64 had these beautifully elegant animated sprites and I just didn't know what to do with them on the Amstrad.

GEORGE: What is the story behind you teaming up with Dave Perry and what was the first Amstrad CPC game that you both worked on ?

NICK: Fergus McGovern of Probe Software was looking for someone to convert Trantor to the Amstrad. David Perry had just left MikroGen. We knew it was going to be a difficult job to convert for the Amstrad. Scrolling on the

Spectrum was hard enough and our expectations were low but David said he would give the scrolling a go. To our great surprise and delight he not only go the scrolling up and running in a few days but it ran faster than the Spectrum.

GEORGE: The graphics you coded in your games for the Amstrad CPC are simply out of this world, so much colour and large sprites, what did you use to code it all in and was there any special techniques that you used, if so please elaborate ?

NICK: There wasn't a particular way of building the art that made it so fast. The speed was down to Davids code. I was always pushing for large sprites because I always wanted games to be more than they were. Big and bold. With David Perry I found someone that shared that sentiment. We were always pushing hard which made us a great team.

GEORGE: What inspired your graphic creativity on the Amstrad CPC ? And what were your favourite and least favourite memories on doing the graphics for games on the Amstrad CPC's ?

NICK: As a whole I found the Amstrad was a tricky graphics machine. Having worked on the Spectrum for many years it was a welcome relief to not worry about color clash but I struggled with the double pixel width. I would often want to make the game in the higher res 4 color mode but it always looked too drab compared to the bright 16 colors which suit our fast paced games better.

Making art on any of these early systems was a pain. Never mind a tablet this was before we even had a mouse. Most of the pixel art I created was with a Joystick. Everything was linear, I would have to wait seconds while I moved the cursor from one side of the screen to the other. Loading screens took forever! Eventually we started using a custom art tool on the Atari St (A mouse, thank GOD!) that mimicked the Amstrad perfectly.

GEORGE: Can you remember all of the Amstrad CPC games you ever worked on ?

NICK: I'll probably miss a few but here goes. Trantor, Savage, Dan Dare 3, Smash TV, Teenage Mutant Hero Turtles, Impossible Mission, Captain Planet.

GEORGE: What is the best and worst Amstrad CPC game you worked on ?

NICK: The worst for me was Captain Planet. I just didn't like the IP or game. It was during a period of time where the production times were getting shorter and shorter. I think Dan Dare was one of our best but I'm sure if we had ever made it, Trantor 2 would have been the one.

GEORGE: What do you think is the best ever Amstrad CPC game you ever played ?

I was a fan of isometric games and thought the Amstrad did the best job with these. Its unique 4 color hir-res mode was rarely used but perfectly suited here. Head Over Heels, Batman, Spindizzy. All better on Amstrad.

GEORGE: What were the best and worst software companies you worked for during the Amstrad CPC days?

NICK: While our games were published by a wide variety of publishers nearly all of the development was contracted through Probe Software so my experience was very consistent. I was grateful for that upon hearing some of the horror stories out there.

GEORGE: Where did your career go when you stopped coding games on the Amstrad CPC ?

NICK: As the 8 bit market faded out David and I moved on to the consoles. Our first was The Terminator for the Genesis. Then I did Alien 3 on the SNES with Nick Jones. By that time David and I had relocated to California courtesy of Virgin Games where we made Disney's Aladdin before leaving to form Shiny Entertainment. Nick Jones later joined us at Shiny where we all worked on the Earthworm Jim Series. David then retired from programming to focus on running the company and I turned my attention to the PC, making games like MDK and Giants Citizen Kabuto.

GEORGE: At the end of Trantor, The last Stormtrooper, the player is informed of a sequel but it never happened, do you recall what happened there ?

NICK: We were very hopeful of making a sequel. The response seemed very good but I guess it never sold the numbers GO needed to warrant a sequel. Its a shame, I think it could have grown into a franchise with more time to develop the gameplay further. Instead we moved onto Savage.

GEORGE: Are you still a big gamer? Do you ever go back to playing 8-bit games or

GEORGE: Creating graphics on a real Amstrad CPC or Amstrad CPC emulator just for the fun of it?

NICK: I While it would be great fun to play with 8 bit again I just don't have time for that. There's so much I want to do with current tech especially with VR/AR just around the corner. I'm really enjoying everyone retrospectives though. I've been asked to do quite a few interviews/book contributions and I'm glad all the memories are being written down and committed to history before I forget everything.

GEORGE: What's the worst bit of technology you've ever bought?

NICK: I From a work point of view the Spectrum Microdrive drove me crazy. Saving work onto tape was a nerve wracking affair for me. It was a relief when I finally got an Opus One drive. The Amstrad always more rock solid with its built in drive. No flakey edge connectors to ruin your day.

GEORGE: If you could bring back an obsolete bit of technology, which would it be?

NICK: I The Cray Supercomputer! The Lamborghini Countach of computers plus it helped render the first Tron movie. Of course an iPhone would destroy it now but an iPhone doesn't come with built in bench seating now does it.

Graham Axten's
the Bear Essentials

Help Bear collect fruit for the winter in this new platform game featuring simultaneous music and sfx. Face 60 enemy types while exploring 60 screens spread out over 6 unique areas! Free download from pondsoft.uk - Jewel case disk version £10

"Bear?" asked Hedgehog, "what's that you've got there?"
"It's a new C64 game from POND", Bear said with a big smile on his face, "and it's got a ME in it, look!"
"Oh", squeaked Hedgehog. "Can I have a go?"

pond

HACKING FOR INFINITE LIVES

by George Bachaelor

WHAT YOU'LL NEED

An AMSTRAD CPC / AMSTRAD PLUS
or a PC with an AMSTRAD CPC emulator,
pen and paper.

HOW TO START

Let's start with finding the basic poke –
INFINITE LIVES. Ok so load up your Amstrad
CPC / Amstrad Plus or Amstrad CPC emulator,
for this example I am using the Amstrad CPC
emulator known as WINAPE.

Game lives are usually identified on your game
playing screen as a numeric value and for the
first example I will use the game Killer Ring.

Most programmers of the 8bit era would store
the number of lives in a memory location and
this would look something like this:

**LD A,#03   ; Load the accumulator
with 3
LD (#4000),A   ; Store the accumulator
contents of 3 at memory location 4000**

We will now do a SEARCH to find all the
locations of where the number 03 is stored. As
killer ring has 3 lives on screen we will search
for that number if it was more then we would
search for a greater number.

To perform a search we must enter the
debugger – to do this we click on DEBUG in the
toolbar then click on PAUSE.

The debugger will open up and is split into two
sections. To perform a search in the debugger
drag your cursor to the top window and make
sure you scroll the contents all the way to the
top so you are starting your search from
memory location 0000.

Then, right click on memory location 0000 and
a small window will pop out. Next, click on
FIND. This will open up the search window and
from here click on the tile marked HEX DATA.
Once the game loads you will see Killer Ring
starts with 3 lives and so we must find where
these 3 lives are located.

The most common method of finding a poke in
your CPC games is to perform a search for the
values 3E 03 32 in hex. We are telling the CPC
to find the number 3 i.e. the number of lives in
the game is and where it's held in memory.

What this looks like in the disassembler is

**LD A,#03
LD (#XXXX),A**

So in Killer Ring it looks like this

**0986   LD A,#03
0988   LD (#0569),A**

I changed the 03 value to 00 and nothing
happens. I then change the value back to its
original value of 03. I also finish the game I am
in and go back to the start of the game.

Then I enter the debugger again and click on

find again to find the next location and there is one at 230C

230C   LD A,#03
230E   LD (#177F),A

I change the value of 03 (which is in fact 230D) to 05 and start a game. Wow look at the lives they are now 5 instead of 3. This is where lives are stored but this is not the poke for Infinite Lives. Changing the value at 230D to FF will give 255 lives.

For infinite lives we have to do a little more poking. So at 230E we see that at #177F lives are held in this memory location. Ok so now we now must perform a search for 7F 17 (the reverse of 177F also known as searching the lo – byte) to see where the location of the lives is being accessed.

Our search brings us to the following location:

1790   LD A,(#177F)
1793   DEC A
1794   LD (#177F),A

The above code says, the game is storing 03 lives at 177F, then it decreases the lives by 1 and then stores it back again. To have infinite lives while playing Killer Ring we must poke 00 at 1793.

So 1793 DEC A now becomes 1793   NOP

This tells the game to do nothing so when you lose a life it wont decrease and it will give you infinite lives.

ATF - THE EXCEPTION TO THE RULE

Ok so load up ATF on your Amstrad CPC / Amstrad Plus or Amstrad CPC emulator, for this example I am using WINAPE again. Once loaded and your ready to play the game you'll see you have 3 lives. Now allow yourself to be killed so the lives changes to 02.
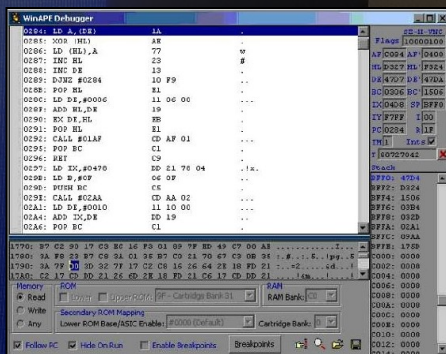
ENTER 00 AT LINE 1793 TO GET INFINITE LIVES IN THE GAME KILLER RING

THE LIVES FIGURE CHANGES TO AN INFINITE SYMBOL

YOUR POKING BOX OF TRICKS

3e 03 32	LD A,3; Load Accumulator with 3
	LD (XXXX),A; Store Accumulator at address XXXX
21 XX XX	LD HL, #XXXX
3D	DEC A; Decrement Accumulator
35	DEC (HL); Decrement contents of address pointed to by HL

29

Following the above guidelines open the DEBUGGER and perform a search. In the hex data window type in the following: 3E 03 32 and press ENTER. What this does is find the first location of 03 in memory. The first search brings us to memory location:

2C59   LD A,#03
2C5B   LD (#BE86),A

Now we must look at memory location BE86. We find that the value is 02 because we have died and our lives on screen are the number 2.

Lets play around a bit, changing that value to say to 05. Now go back and play the game and see what happens.

The onscreen lives value is still the same, however when u lose a life, the lives value changes from 2 to 4.

NUMBER OF LIVES LEFT HAS CHANGED FROM
2 TO 4 IN GAME ATF

We now know this location plays a part in the accumulator for our lives but it is not the poke to give us infinite lives. We know this because if you change the value to 00 the lives will count down when u die so in affect its not definite location in memory we are seeking.

This next part can be a little confusing so concentrate. To continue with our searching we now look for 86 BE. This is the memory location BE86 in reverse and this search is referred to as the LO BYTE. We search for all memory locations that store 86 BE. On about

our third search we land at:

2D0A   LD HL,#BE86
2D0D   DEC (HL)

Now poke 2D0D with 00 and return to the game. YIKES! Our lives don't decrease but the game also ends. In 99.9% of games that poke would have been our INF lives poke (very important you remember this for other games) but here this is an exception.

So instead poke 2D0D with B6 and this will give you INFINITE LIVES for ATF.

OTHER METHODS

As Z80 programmers used different methods in their coding I will illustrate another method in finding pokes and for this I will use the game 2088.

Load up 2088 and you find the game has three lives represented as 3 in the game. Nothing seems different here looks pretty straight forward.

However if you do a search for the lives before playing a game you wont actually see where the lives are stored. Here is something different, this time you must start a game as before the game starts the code location of where lives are to be found will be NOP i.e. this means the code will be 00 and not 03.

Performing a 3E 03 32 search for 2088 found quite a number of matches but did not prove to be what we were searching for. I then did a search for 03 03 in hex. The reason I did this is because the game has 2 players and the 03 03 represents a search for the three lives of player 1 and player 2.

Quite a number of matches were found. I went about changing the value of 03 to 07 to see if this would bring about a change of the lives shown on the screen (in the game), nothing happened until I reached 7B62.

The lives shown onscreen had increased to 07 and now I knew that lives were stored here. Another way of doing this is by losing a life and seeing if any of your matches of 03 03 changes to 02 after you have lost a life.

If you change the value at 7B62 to 00 and lose a life the lives shown on screen will change to a backslash character (/). We now know that this is not the true location to poke for infinite lives. The maximum number of lives we can get by altering this location value is 255 lives or FF in hex.

Finding the infinite lives poke requires some more poking. From here I performed a search for the memory location that is holding the lives of the game – a lo byte search is required so I did a search for 21 62 7B which in assembly is LD HL,#7B62 (remember our memory location is 7B62 so we need to search the lo byte first which is simply the reverse i.e. 62 7B)

If you look down from 3377 you will see:
I find 2 matches at locations – 3377 and 33C0.

3383 DEC (HL)

This looks very promising – I change the DEC (HL) to 00 and go back to the game. I lost a life to see if the lives would decrease or not. When I lost a life "game over" appeared on the screen but it didn't go back to the main menu screen it just kept playing with 3 lives – YAY we now have infinite lives.

At the point we remove the DEC (HL) you are also removing the affect on the flags as well so although lives don't decrease the game thinks it needs to print the "game over" message. To stop the "game over" message from appearing on the screen we could change the value 00 to 3C (INC A) and the game will play as normal.
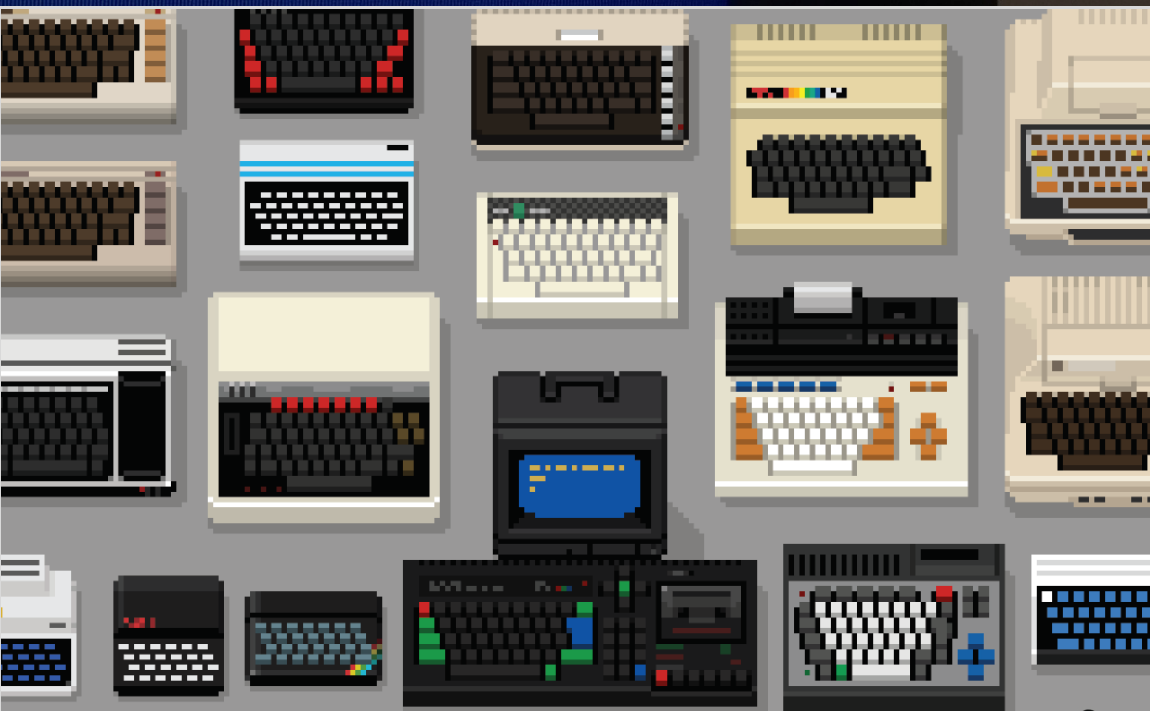
PROGRAMMING SPRITES 2

JOHN KAVANAGH LOOKS AT DISPLAYING MULTIPLE SPRITES AS WELL AS MULTI-COLOURED SPRITES ON THE C64.

MULTIPLE SPRITES

Last issue we displayed a 24 x 21 sprite on screen in high resolution, single colour mode. Hopefully you can now design your own sprites and define their position on screen but what if you want multiple sprites on screen at the same time?

In the last issue a program was listed to display a single sprite on screen. If you remember, first we had to turn the sprite on for it to be displayed. We did this with the following command:

POKE VIC+21,1

With VIC being equal to 53248. So how do you turn on multiple sprites, like sprite 0 and sprite 1? Easy, just use:

POKE VIC+21,3

There are two questions you will probably be asking right now. The first is why POKE 3 into VIC+21 (or in other words, 53269) and secondly, if you ran the POKE after running last issues type-in, why didn't anything happen?

The second question is easier to answer so we deal with that one first. Nothing happened because you haven't defined the location of the sprite in memory and you haven't given the X and Y coordinates. We did this for Sprite 0 in in lines 50 to 80 in the last issue. So to add to last issues code, enter the following:

400 POKE 2041,13
410 POKE VIC+2,80
420 POKE VIC+3,140
430 POKE VIC+40,2
440 POKE VIC+21,3

Running the program will now display two identical sprites of different colours. We did this without entering any sprite data by having sprite 1 point to the same memory location as we did for sprite 0. In line 400, by setting memory location 2041 to 13 we are telling the computer that sprite 1 data is at memory location 13 multiplied by 64 which means that it is using the sprite data at memory location 832 (13x64). If we wanted to set sprite 4 to the same memory location we would have used **POKE 2044, 13**.

Lines 410 and 420 sets the X and Y coordinates of sprite 1. Line 430 sets the colour of sprite 1.

To explain line 440, we have to answer the first question which can be explained with the aid of figure 1 at the top of the next page.

SPRITE NUMBER	7	6	5	4	3	2	1	0
BINARY	0	0	0	0	0	0	1	1
VALUE	128	64	32	16	8	4	2	1

FIGURE 1

To turn on sprite 0, we would use POKE VIC+21,1 because Sprite 0 is represented by the least significant bit in binary. That is the bit to the furthest right. An "1" means the sprite is on, "0" it's off. In the example in figure 1 we have both sprint numbers 0 and 1 set to 1 each, so 00000011 in decimal is 3. If we say wanted sprites 0 to 5 on we would have used the binary value of 00111111 which is 63 in decimal which we get by adding up all the values. So we would use POKE VIC+21,64 to turn on sprites 0, 1, 2, 3, 4 and 5.

It's important to grasp this concept as it is used when expanding sprites horizontally and vertically and for turning multi-colour on or off for each sprite.

MULTI-COLOUR SPRITES

Speaking of which, the multi-coloured function allow sprites to be displayed on screen using more than one colour. In fact multi-coloured sprites on the Commodore 64 can have three colours plus transparency. When entering sprite data, entering a pair of "00"bits would be transparency, "01" bits is the first colour, "10" for the second colour and finally "11" for the third colour. When defining colours, you define the first colour at memory address 53285, or VIC+37 and the third colour at 53286 or VIC+38. Changing the first or third colour changings the colour for all the sprites. For example: **POKE VIC+38, 9** would change the 3rd colour of all the sprites, 0 to 7, to brown if multi-coloured mode was enabled for those sprites. It's the same with **POKE VIC+37,9** for the 1st colour.

The second colour of a multi-colour sprite is independent per each sprite. For example you can set the 2nd colour of sprite 4 to yellow and the 2nd colour for Sprite 3 to red. For example: **POKE VIC+43, 7** will set the 2nd colour of sprite 4 to yellow and **POKE VIC+42,2** will set the 2nd colour of sprite 3 to red. Obviously the advantage of multi-coloured sprites are more colours per sprite, the disadvantage is that the sprites have less resolution, 12x21 instead of 24x21. They will still occupy the same screen area but each pixel is wider so will appear less detailed than a standard single colour sprite.

To turn sprite 0 into a multi-coloured sprite just use the following:

POKE VIC+28,1

If you had the program running from the last issue the data will look garbled. In the next issue we will explain how to make those multi-coloured sprites look the part and if we have time we'll check out sprite collision. In the meantime, have a look at the handy sprite registers chart on the next page and see if you can work out how to display multiple multi-coloured sprites on screen at the same time.

ARCADIA 2001
BASIC V2
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retrobrain.com/basic

SPRITE REGISTERS

MEMORY LOCATION (VIC II base, decimal, hex)	Description	ENTERED AS
VIC+0 53248 (D000)	Sprite 0 Horizontal position from left of screen.	0 to 255
VIC+1 53249 (D001)	Sprite 0 Vertical position from the top of the screen.	0 to 255
VIC+2 53250 (D002)	Sprite 1 Horizontal position from left of screen.	0 to 255
VIC+3 53251 (D003)	Sprite 1 Vertical position from the top of the screen.	0 to 255
VIC+4 53252 (D004)	Sprite 2 Horizontal position from left of screen.	0 to 255
VIC+5 53253 (D005)	Sprite 2 Vertical position from the top of the screen.	0 to 255
VIC+6 53254 (D006)	Sprite 3 Horizontal position from left of screen.	0 to 255
VIC+7 53255 (D007)	Sprite 3 Vertical position from the top of the screen.	0 to 255
VIC+8 53256 (D008)	Sprite 4 Horizontal position from left of screen.	0 to 255
VIC+9 53257 (D009)	Sprite 4 Vertical position from the top of the screen.	0 to 255
VIC+10 53258 (D00A)	Sprite 5 Horizontal position from left of screen.	0 to 255
VIC+11 53259 (D00B)	Sprite 5 Vertical position from the top of the screen.	0 to 255
VIC+12 53260 (D00C)	Sprite 6 Horizontal position from left of screen.	0 to 255
VIC+13 53261 (D00D)	Sprite 6 Vertical position from the top of the screen.	0 to 255
VIC+14 53262 (D00E)	Sprite 7 Horizontal position from left of screen.	0 to 255
VIC+15 53263 (D00F)	Sprite 7 Vertical position from the top of the screen.	0 to 255
VIC+16 53264 (D010)	Sprites extra movement, add 255 pixels horizontally.	ONE BIT PER SPRITE
VIC+21 53269 (D015)	Enable sprites on and off	ONE BIT PER SPRITE
VIC+23 53271 (D017)	Expand Sprite Horizontally	ONE BIT PER SPRITE
VIC+27 53275 (D01B)	Set a sprite to the background or foreground	ONE BIT PER SPRITE
VIC+28 53276 (D01C)	Turn Multicolour on/off per sprite	ONE BIT PER SPRITE
VIC+29 53277 (D01D)	Expand Sprite Horizontally	ONE BIT PER SPRITE
VIC+37 53285 (D025)	Set 1st colour for Multi-colour mode for all sprites	0 to 15
VIC+38 53286 (D026)	Set 3rd colour for Multi-colour mode for all sprites	0 to 15
VIC+39 53287 (D027)	Sprite 0 colour or its 2nd colour in Multi-colour mode	0 to 15
VIC+40 53288 (D028)	Sprite 1 colour or its 2nd colour in Multi-colour mode	0 to 15
VIC+41 53289 (D029)	Sprite 2 colour or its 2nd colour in Multi-colour mode	0 to 15
VIC+42 53290 (D02A)	Sprite 3 colour or its 2nd colour in Multi-colour mode	0 to 15
VIC+43 53291 (D02B)	Sprite 4 colour or its 2nd colour in Multi-colour mode	0 to 15
VIC+44 53292 (D02C)	Sprite 5 colour or its 2nd colour in Multi-colour mode	0 to 15
VIC+45 53293 (D02D)	Sprite 6 colour or its 2nd colour in Multi-colour mode	0 to 15
VIC+46 53294 (D02E)	Sprite 7 colour or its 2nd colour in Multi-colour mode	0 to 15

2040 -2047 (7F8—7FF)   Sets the memory location for Sprites 0 to 7, with the value entered multiplied by 64 e.g. POKE 2040,13 sets the start of Sprite 0's data to memory location 13*64 which is 832. or POKE 2047,14 which sets the start of Sprite 7's data to memory location 896.

COMMODORE 64 COLOURS

0 :BLACK	1: WHITE	2: RED	3: CYAN	4: VIOLET	5: GREEN
6: BLUE	7: YELLOW	8: ORANGE	9: BROWN	10: LIGHTRED	11: GREY 1
12: GREY 2	13: LIGHTGREEN		14: LIGHTBLUE		15: GREY 3

We talk to Vanja Utne and the rest of the team at Pond Software and have a look at the software they've created and their plans for the future.

Hi Vanja, how was Pond Software founded?

Vanja Utne: I had drawn some asteroid sprites for Andreas, and as a bonus I did a little green alien in a spacesuit, when he saw it he decided we had to do a game together. He suggested naming the little alien "Spaceman Splorf", and that was how our first proper C64 game came to be. Andreas had already released some games for other platforms using his solo brand SDW Developments, so we decided that I should have my own label too. I had drawn a Pond logo on the Amiga back in 1991, and thought it would be a fun name to release things under. Shortly after we released the game, Pond grew from a solo label to a proper hobbyist game dev team, with Roy, Graham and Andreas joining, followed by Craig, and finally Ant, who was hired to brew the tea but keeps sneaking off to work on his own game.

How did you get involved in the Commodore 64 and game development?

Vanja Utne: I've always wanted to make games, but usually something got in the way, like my lack of programming skills, and I have a pile of unfinished game projects from the last 20+ years. Teaming up with the others in Pond has been a great motivation to learn more and actually finish things.

Are there other computers besides the Commodore 64 that you are interested in?

Vanja Utne: Absolutely. I was given the chance to do the loading screen for Magica by Juan J. Martínez on the Amstrad CPC last year, that was a lot of fun. I've done some graphics on the MSX-1 and other 8 bits over the years, I've coded a bit on the Vic 20 and the C16/+4. I'm primarily interested in old 8 bit computers, but I like the Amiga and Atari ST(E) too. We've already started branching out a bit with the Atari 2600 version of Spaceman Splorf, and we have games planned for other platforms besides the C64 and 2600 as well.

The Pond software logo looks like the Ocean software logo, was that an accident?

Vanja Utne: They were a great Ocean, we are a tiny Pond... It was completely intentional, and meant as a bit of a tribute to Ocean and Bob Wakelin, who designed the original logo and a lot of their amazing covers, he's brilliant. I did consider doing a completely different logo design at one point but one of the Pond members, who used to work at Ocean, insisted we keep it the way it is.

Have you met the other members of the team in person?

Vanja Utne: Not yet, no. We work well together, despite being spread out all over the world.

What would be your dream project?

Vanja Utne: Pond is my dream project, really! Oh, games? Something with a Bob Wakelin cover, and lots of room for graphics. Pirates and witches and dragons and goblins and things.

Are there any future projects you can tell us about?

Vanja Utne: Andreas is coding two different shoot'em ups for two fairly obscure 8 bit platforms. We're also working on some more Spaceman Splorf games together, all different genres but featuring the same main character.

Ant is ignoring his tea brewing duties and working on Petunia Pickle's Pumkin Peril, where you play a witch who has to defend her pumpkin patch.

Craig is working on a C64 version of Swing Copters and a few other things.

Graham has started working on a Snail's Tale, and there's bound to be a sequel to The Bear Essentials at some point.

Roy has a lot of great projects in the works, including Humpy.

I'm hoping to do an extended version of or sequel to Goblin, and maybe finish some of my old projects.

**Check out
Pond Software at:
pondsoft.uk**

The Bear Essentials

Bear has been lazy all summer long and winter is approaching fast. He must collect enough fruit to survive the long winter or face the wrath of Mrs. Bear.

The game is a platformer where you got to collect 326 apples over six stages. Enemies are other animals and all it takes is one touch and your character loses one of his five lives. While the enemy AI is simple, they just follow a pattern, it is still fun trying to get past them to reach the apples. Some apples are difficult to get due to their location and does involve a bit of thinking.

Pond Software released a boxed copy for £15 Sterling which includes the game on a 5.25 inch disk, an A5 jewel case, cover inlay and a 12 page colour manual with stickers. See their website for details.

A very enjoyable game to play, bundled in cuteness. Well worth checking out.

Spaceman Splorf: Planet of Doom

Battlestar Galactica music and references to Star Wars are just some of the Sci-Fi shows that Spaceman Splorf nods to.

You control Splorf, a green alien in a spacesuit, flying through space avoiding asteroids and other debris as the screen scrolls from right to left. Simple but addictive gameplay with controls being just one button. Using the spacebar or fire button on your joystick moves Splorf up, release and he falls back down towards the surface of the planet.

There are eight different music tracks or you can instead choose the hear sound effects. If you got a second SID chip installed in your computer you can play both at the same time.

Vanja Utne
Kristiansund N, Norway

What have you done at Pond Software?
I made two small 4 kilobyte games, Goblin and Dog. I've also done graphics and music for other projects, including the C64 and Atari 2600 versions of Spaceman Splorf, and drawn the cover inlay illustrations for The Bear Essentials, our first physical release.

What do you enjoy the most about making games? Breathing life into little characters and building a world for them to move around in, it's magic. Also, working with these amazing people.

Favourite games? Some of the ones I've kept returning to over the years are Wizard of Wor, Barbarian, Bubble Bobble, Turrican II, Colonization, Monkey Island 1 & 2, EverQuest II, and finally Bonkey Kong, it is just so addictive.

Favourite retro computers and consoles? The first console I owned was the Philips Videopac G7000 (known as the Magnavox Odyssey 2 in the US), and I still love it. It has the best Pac-Man clone ever, Munchkin.

Is the Commodore 64 the best 8-bit? ;-) I enjoy working on all the 8 bits, they all have their charm, but the C64 was my first love and remains closest to my heart. It's extremely versatile, you can do so much with the hardware sprites and different graphics modes. I know some people dislike the palette, but for me as a graphics monkey having worked on a lot of different computers, it's got everything I need. The C64 also has the worst BASIC ever, which was a stroke of genius by Commodore, since it forced people like me to learn 6502 ASM instead of faffing about with BASIC. Thank you, Commodore!
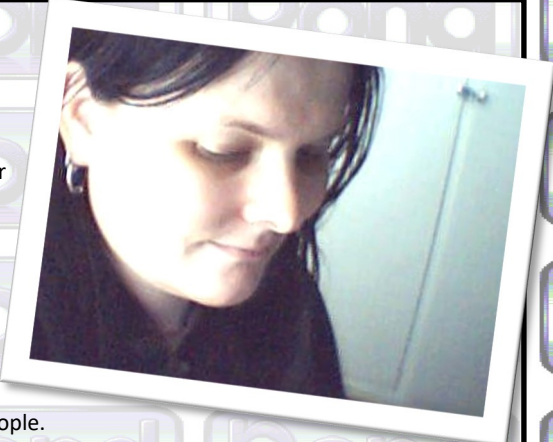
Andreas Gustafsson
Sweden

What have you done at Pond Software? Spaceman Splorf (C64 version released, Atari 2600 version coming soon) Super Ski (C64)

What got you started in making games? I was fascinated with videogames from an early age, and when I got my first C64 at age twelve, I immediately tried creating my own. It ended up in horrible BASIC games, but it was a start!

What do you enjoy the most about making games? For me, it's simply getting stuff on the screen, creating a moving, living experience. On the other hand, when it's time to actually finish a game, do all the fine tuning and create the levels and fix bugs and all that other stuff, I have a tendency to get bored unfortunately! :)

Favourite games? On the C64 my favourite games were games like H.E.R.O. and Giana Sisters (still have my original cassette bought back then!)

Of course I have continued to play games on Amiga, PC, and consoles later and found many games that have eaten quite a lot of time, probably too many to list though!

Favourite retro computers and consoles? I can honestly say that I like each and every one of the old 8/16 bit systems, they each have their own quirks and limitations, and that's what makes coding for them so interesting. As for favourite, maybe I should give a nod to the C64, since it was my first computer.

Is the Commodore 64 the best 8-bit? ;-) Yes! And as I have actually coded for a very large number of the old 8-bit machines, I can actually back this answer up with more than personal feelings! :)

The C64 has a very powerful combination of hardware. The VIC-II chip gives you a great toolbox, character modes, bitmap modes, 320x200 hires mode, 160x200 multicolour mode, charbased colour attributes, scrolling and finally very flexible sprites.

When it comes to sound, the SID is second to none in the 8-bit generation. The only minor weak spot is that the CPU is somewhat slow, but the aforementioned features more than mitigates that.

Finally, it had, and to this day continues to have, one of the largest communities with lots of releases every year.

Roy "Roysterini" Fielding
Cheshire, UK

What have you done at Pond Software:
Not enough. Made Winky Blinky and soon
to release Humpy.

What got you started in making games:
Er... back in the 80's I got into bedroom
programming and did my first terrible C64
game in 1989 I think. Before that, I did
some BBC BASIC simple games.

**What do you enjoy the most about
making games:** The sense of achievement
when I (rarely) complete a project. Also, if just one person
really enjoys it, I buzz off that.

Favourite games: Casual games these days, or new releases on C64.

Favourite retro computers and consoles: Faves home computers are C64 (obviously), Spectrum
and BBC micro. Consoles, I love the old Atari, NES, SNES and currently, rather like the PS4 despite
it's annoying foibles (as all modern consoles have).

Is the Commodore 64 the best 8-bit? ;-) But of course!

Graham Axten
Derbyshire, UK

What have you done at Pond Software:
Bonkey Kong (for the Reset 4k competition)
and The Bear Essentials

What got you started in making games:
When my Dad bought his Speccy, we were
all fascinated by the games, and interested
to know how they work!

My Dad experimented in BASIC and then
moved on to machine code, and I tried to follow in
his footsteps but it was a long time until I really got to grips with
machine code.

I enjoyed typing in programs from magazines and then figuring out what each bit was for, that was
a good way to learn programming.

What do you enjoy the most about making games: I think once the players movement has been
coded and then you design the first few screens and get to explore them for the first time.

It really feels like you have created a little world, and your imagination kicks in with new things to
add to the game, that's definitely my favourite part!

Favourite games: On the C64, I really like Flimbo's Quest and Creatures 2. Out of modern games, I
have spent many many hours shooting locust in Gears of War. I also like the Valve games Half-Life 2
and Portal, and I have a soft spot for Nintendo at times (the polish on their games is unreal).

Favourite retro computers and consoles: C64 and Speccy! I prefer computers to consoles these
days as they are open for experimentation and creative minds :)

If we're talking consoles... I was quite late into the console scene and my first was an N64. That and
the GameCube are my favourites.

Is the Commodore 64 the best 8-bit? ;-) Yep! The C64 scene is still very much alive, and the fact it
has hardware sprites makes it brilliant for any beginners to get something up and running fairly
quickly. I tried programming the Speccy recently and I really found it hard work, so I'll be sticking
with the C64 for a good while.

Winky Blinky

**Move your joystick left when Mister Turpin
winks and move it to the right when he
blinks. Sounds simple? Well, it's harder than
it sounds, especially with Mister Turpin's eye
movements being hilariously funny. Best
played with friends to compete for a high
score. A fun little game that should give a few
minutes of entertainment on rainy days.**

SCORE 019   BEST 011

Craig Derbyshire
Manchester, UK

What have you done at Pond Software:
Not much ATM, currently only done " I Am the Flashing C64 Cursor" which was for the 4k Reset game compo. I have a few projects in the works including a C64 version of Swing copters, which I hope to complete soon.

What got you started in making games:
Back in the 80's I dabbled with coding on the BBC micro, this was mainly because it was what we used at school and as part of my Computer Studies, I used to love playing with creating sprites and displaying them on screen. I used to also love typing in the listings from the magazines on my Sinclair ZX81 and tweaking the code for my own needs but never managed to create something from scratch. Fast forward 20 odd years and with the event of emulation, I was reintroduced to the world of the C64 which I instantly fell in love with and ended up buying several machines. I had dabbled with modern coding in Unity recently, but wanted to learn to code the C64 due to my recent love affair with the machine and found it much easier to understand how to code in assembler than I thought and so began to code some games.

What do you enjoy the most about making games: I find coding in assembler on the C64 incredibly satisfying, being in total control of the hardware makes one feel almost like a magician. To me it is all about solving little problems and finding solutions, nothing makes me smile more when you see all those lines of code turned into something that you can see on the screen and interact with, it's almost like magic!

Favourite games: Astro Blaster on Arcade, IK+ on c64

Favourite retro computers and consoles: C64, BBC Micro, Sega Saturn, PC Engine, Amiga 1200, Atari Lynx

Is the Commodore 64 the best 8-bit? ;-) The C64 is by far my most favourite 8 Bit !!

Dog

Dog is a 4KB game where you control a dog. Your horrific job is to defecate on a lawn while avoiding the human. If your get the dog to defecate in quick succession (not easy) you'll get a bonus. The guy chasing your dog makes angry facial expressions which changes from time to time, amazing for such a small game.

Anthony Stiller (everyone calls me Ant)
Queensland, Australia

What have you done at Pond Software:
I'm the newest member of the team so they've got me making the tea (Yes, Roy! The kettle's just boiling!). Oh, I'm also working on Petunia Pickle's Pumpkin Peril (which is based on my RESET 64 4K Comp entry). This will be my first Pond release.

What got you started in making games:
Type-ins from the old Usborne computer books! From there it was Compute! and Compute!'s Gazette. I dabbled in SEUCK a little but only really sunk my teeth into C64 assembly coding back in late 2016 (you can teach an old dog new tricks, it seems).

What do you enjoy the most about making games:
Working within the constraints of an 8-bit machine is strangely very liberating. And coding in assembly is arcane sorcery. I particularly love doing sprite animation.

Favourite games: Elite, PSI-5 Trading Co., Citadel (the Martin Walker one), Ultima VI. I try to play a range of modern games as well for ... errr ... research.

Favourite retro computers and consoles: C64 (natch), but I really like most 8-bit and 16-bit machines. Ooooh, I am rather partial to the SEGA Megadrive, too!

Is the Commodore 64 the best 8-bit? ;-) This is a trick question, right?

Bonkey Kong

At first I thought this was a clone of Donkey Kong but in this game you control Kong! Your goal is to kill the Mario looking characters that try and climb the ladders to reach the love of your life. You of course can't let that happen. By throwing barrels at those pesky little plumber and killing them stone dead you can stop them from reaching your girl.

They come faster and faster, making your job more difficult. They start to show more intelligence quickly by avoiding the barrels and then they come at you more than one plumber at a time. To make matters worse you can only throw one barrel at a time. All the while the girl is screaming to be rescued. If those little moustached plumbers get to the top then it's all over as they whack Kong with a hammer and steal / rescue the girl. Fun, additive gameplay at its best.

SCORE : 003   HIGH SCORE : 000

Super Ski

Test your skiing skills on four different ski runs. Race downhill, keeping between the flag. As expected the controls are intuitive with the only controls are left and right. However you must avoid obstacles as well so watch out for those bears! One of the more enjoyable downhill racing games.

Goblin!

Goblin is a fun platform game and like all good platformers there's a story behind it. In this case, the Goblin town potato cellars have been invaded by giant potato bugs! It's your job to save the potatoes and avoid the bugs. Once all the potatoes are collected you can progress to the next screen.

Other Games

Other games to check out from Pond Software are "I Am the Flashing C64 Cursor" and "C64ColQuiz".

Super Ski
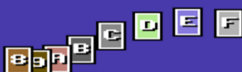
C64ColQuiz

Goblin!
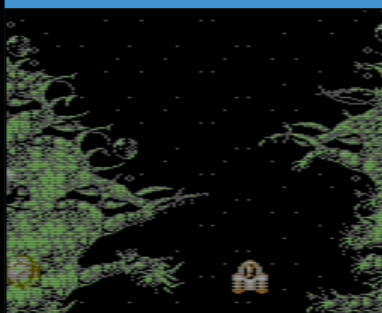
Astrostorm II (Coming Soon)

42

Upcoming Games

There are a number of upcoming games from Pond Software in the coming months. First up there's Humpy, a game where you try and keep your character from being knocked into the water. It seems to be another highly enjoyable game by Roy Fieldling.

Petunia Pickle's Pumpkin Peril is where you play a witch who has to defend her pumpkin patch. Programming and graphics by Ant Stiller with title graphics and sound by Vanja Utne.

There is also a new Splorf game called Splorf Strikes Back but we don't know much about it as yet.

Other games coming are A Snail's Tale, Astrostorm II, Hocus Pocus and the Commodore 64 version of Swing Copters. Expect coverage of those games in future issues of Eight Bit Magazine.

Petunia Pickle's Pumpkin Peril Gameplay

Hocus Pocus (Coming Soon)

Humpy (Coming Soon)

Petunia Pickle's Pumpkin Peril Title Screen (Coming Soon)

www.forum64.de: Europas größtes Forum für Commodore Rechner und andere 8-Bit / 16 Bit Computer. Über 4000 aktive Mitglieder! We speak english too.

Dan D'Andrea

@tobobobo: retrogaming, doodles, non-swearing Londoner.

Alexander Ryan: God Bless you all :) Jesus is lord

The Apple Adventurer

By Stuart Williams

Stuart Williams looks at the early days of adventure games, some classics and how to go adventuring on your Apple II today.

Many are familiar with the concept of the text adventure game, or work of 'interactive fiction'; they may even have played such a game when they were much younger, in the early days of home computing – the late 1970s to 1980s – when they may have had fun loading them up off cassette with a Sinclair Spectrum, a BBC Micro, a Commodore 64, an Amstrad, a Dragon or even an MSX.

But many of the first commercially available adventure games, indeed some of the very first available on a microcomputer instead of a mainframe or minicomputer, were actually initially introduced on the now-scarce Tandy TRS-80 Model I, the Commodore Pet 2001, or the rather easier to find Apple II range. And even today, for those wanting to go adventuring like in the "good old days", there is much to be said for turning to the classic Apple eight-bit machines once again, and truly seminal games like *Adventureland*, *Zork I* and *Mystery House*, from which all else follows on.

What's in an adventure game?

Adventures were some of the very first games to be played on computers, with *Colossal Cave Adventure* (often known simply as *Adventure*) being developed on the DEC PDP-10 as far back as 1975-6. The whole point of the game was to present the player with a story within a digital world with which he or she could interact, solve puzzles in, progress through and, well, have an adventure!

Because those early scientific or business-oriented computers didn't use bit-mapped graphics, the first games, and many of those created for early home computers, were entirely text or character-based, and before the advent of VDU (video display) terminals, game progress would actually be printed out on a teletype machine or line printer. This made text adventure games ideal for converting to the earliest home computers, with minimal or relatively crude graphics by modern standards. They also required relatively little memory to run in, and could be stored on tape cassette or the relatively low capacity floppy disk drives of the day.

The adventurer's tale

Adventure games are also known as 'interactive fiction', since their object is for the player to take part in and influence a fictional story by exploring within the game, making choices, picking up and using objects, solving puzzles and, in the more sophisticated games, even interacting with other, computer-generated characters in the story.

Typically, as you might expect given the geeky nature of computer gaming, fantasy, science fiction, horror and crime, and variations on these tropes, tend to be the most popular themes for adventure game storylines, but almost any subject can lend itself to the genre.

In the beginning

The very first adventure game was *Colossal Cave Adventure*, often referred to simply as *Adventure*, *Colossal Cave*, or *ADVENT*. *Colossal Cave* was developed in 1976 by Will Crowther, for the 36-bit DEC PDP-10 mainframe computer. This game is the great, great grandfather of all the adventure games which followed. And as you might expect, variations on it were among the very first games to appear on the Apple II range.

The basic principle of the game was that the player would control a central character in the game's storyline using simple text commands.

A verb-noun parser was used to interpret these instructions, allowing the player to interact with objects through the program at a basic level, such as typing 'get lamp' or 'read book'. Later text adventures use natural language processing to allow the use of more complex and ambiguous commands.

But the whole point of a text adventure game is really to tell a story, and allow the player to become involved with all its twists and turns, its shocks and setbacks, and its successes. So it needs, much like a book, a background story, scenery, characters, objects and happenings. Unsurprisingly, *Colossal Cave Adventure* is set in a colossal cave, rumoured to filled with wealth, and the primary purpose of the player is to live long enough and solve enough puzzles to claim their financial reward at the end by earning the maximum number of game points available.

In 1977, Crowther was approached by fellow
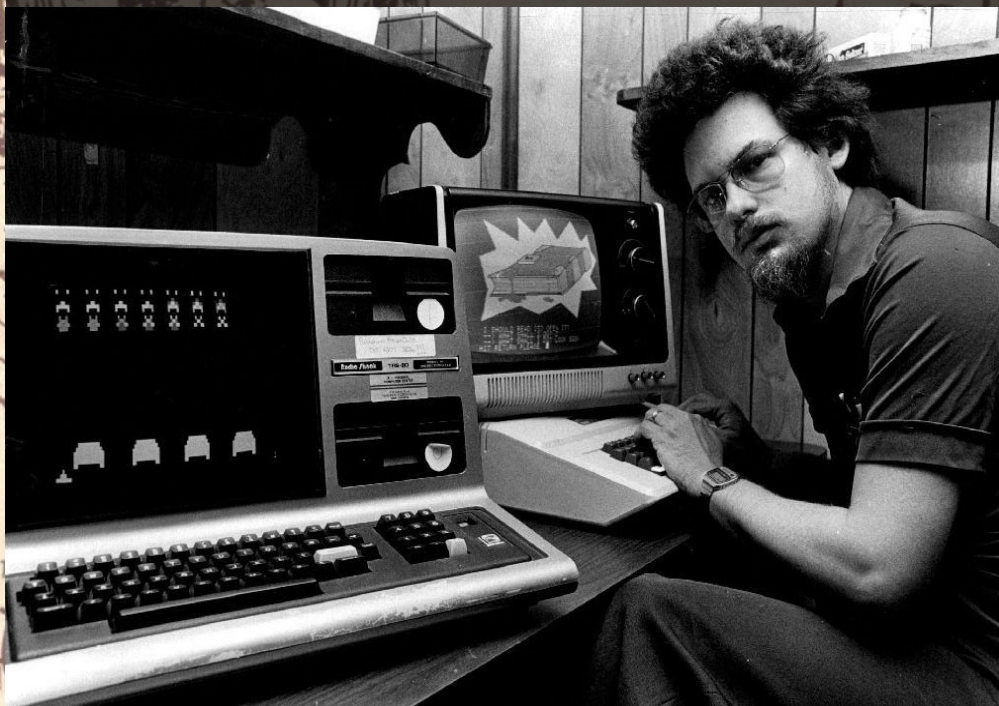
SCOTT ADAMS AT ADVENTURE INTERNATIONAL'S HQ IN LONGWOOD, FLORIDA
(COURTESY THE MIAMI HERALD, 1982)

programmer Don Woods, who discovered Adventure while he was working at the Stanford Artificial Intellgence Laboratory. A fan of the fantasy writings of J.R.R. Tolkien, Woods was keen to add such high-fantasy elements to Colossal Cave. Crowther's original game comprised about 700 lines of FORTRAN code plus an additional 700 lines of data, the latter of which included full text descriptions for 78 map locations – a combination of 66 'rooms' and 12 navigation messages. The program's vocabulary covered 193 words, plus miscellaneous messages and travel tables. Don Woods added elves, a troll and a volcano which some have said is based on Tolkien's Mount Doom in Mordor, but Woods denies this. He also introduced the game's scoring system and hid in it ten additional treasures to collect, over and above Crowther's original five.

Adams and the Apple

Scott Adams is the first person known to have created an Adventure-style game for personal computers, on a Tandy TRS-80 Model I with just 16k of memory and a cassette recorder for storage. Adams had been interested in computers since childhood, having worked with early mainframes at high school in Miami Beach, and went on to attend Florida Institute of Technology where he majored in computer programming and minored in business administration. To help pay for his education he worked in the school's computer department part-time.

Scott's own imagination was fired up by the interactive, problem-solving nature of the adventure game, and wanted to show it to his friends but couldn't very well take them in to work to see it. So he decided to program his own game, inspired by the original, and this was on his own TRS-80 at home, which was one of the first such machines to go on sale. It seemed impossible – after all, the original adventures were running on powerful

mainframes. But it could be done, amazingly at first using the BASIC programming language (and later in machine code), and subsequently Scott's fellow hobbyists 'went wild' about his achievement, showing that there must be a market for this kind of software. More importantly, it was to be the beginning of one of the first and most influential home computers games businesses – Adventure International, which was founded by Adams with the help of his first wife and co-founder Alexis, selling *Adventureland* by mail order. Demanded exceeded all expectation and before long Adventure International was able to take the game into mass production. After its launch on the TRS-80, *Adventureland* was published for the Apple II series and a number of other early platforms.

Adventuring in Adventureland

Adventureland involves the search for thirteen lost artefacts in a fantasy setting. Unlike succeeding adventure games, it has no major story or plot, being simply a treasure hunt.
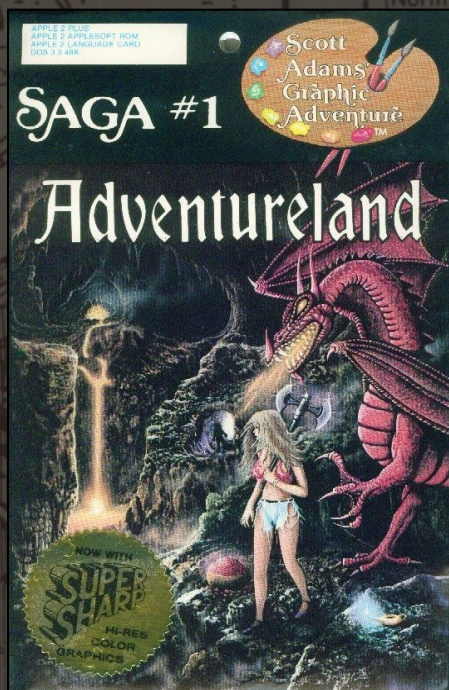
```
***   WELCOME TO ADVENTURE LAND. (#4.2) ***

UNLESS TOLD DIFFERENTLY YOU MUST FIND *TREASURES*
AND-RETURN-THEM-TO-THEIR-PROPER-PLACE!

I'M YOUR PUPPET. GIVE ME ENGLISH COMMANDS THAT
CONSIST OF A NOUN AND VERB. SOME EXAMPLES...

TO FIND OUT WHAT YOU'RE CARRYING YOU MIGHT SAY: TAKE INVENTORY
TO GO INTO A HOLE YOU MIGHT SAY: GO HOLE
TO SAVE CURRENT GAME: SAVE GAME

YOU WILL AT TIMES NEED SPECIAL ITEMS TO DO THINGS, BUT I'M
SURE YOU'LL BE A GOOD ADVENTURER AND FIGURE THESE THINGS OUT.

    HAPPY ADVENTURING... HIT ENTER TO START? _
```

```
I'M IN A FOREST. VISIBLE ITEMS:

TREES.

  SOME EXITS ARE: NORTH SOUTH EAST WEST
<------------------------------------->




A VOICE BOOOOMS OUT:
 "WELCOME TO ADVENTURE NUMBER: 1
 "ADVENTURELAND"  IN THIS ADVENTURE
YOU'RE TO FIND *TREASURES* & STORE THEM
AWAY.   TO SEE HOW WELL YOU'RE DOING SAY:
 "SCORE"
REMEMBER YOU CAN ALWAYS SAY "HELP"
  --> WHAT SHALL I DO? ▪
```

```
I'M IN A LARGE MISTY ROOM WITH STRANGE
UNREADABLE LETTERS OVER ALL THE EXITS..
VISIBLE ITEMS:

SIGN SAYS "LIMBO. FIND RIGHT EXIT AND
LIVE AGAIN!".

  SOME EXITS ARE: NORTH SOUTH EAST WEST
UP DOWN
<------------------------------------->
  --> WHAT SHALL I DO? LOOK CAVERN
I DON'T KNOW WHAT "CAVERN" IS.
  --> WHAT SHALL I DO? LOOK
OK
I SEE NOTHING SPECIAL
  --> WHAT SHALL I DO? GO NORTH
  OK
  --> WHAT SHALL I DO? GO NORTH
  OK
  --> WHAT SHALL I DO? TAKE HONEY
BEES STING ME
  I'M DEAD!
  --> WHAT SHALL I DO? ▪
```

ADVENTURELAND

To succeed, the player must move between various locations within the game, and at the same time find and collect objects. Often, these objects will be needed for later use, perhaps in a totally different location. There are also puzzles to be solved.

As you would expect for the time, and bearing in mind the limited amount of RAM and initial lack of a floppy disk system (Apple was eventually the first to make this available on a home computer), the game has a vocabulary of just 120 words or so. Game commands are simple and not always obvious. Most take the form of either simple, two-word, verb/noun phrases, such as 'climb tree,' or single word commands, such as for moving the player's character through the game and its locations (north, south, east, west, up, down etc.).

Because the parser (the program's command interpreter) only recognised the first three letters of any command, it occasionally misidentified a command. But this also mean that the player in a hurry could get away with shortened versions of commands such as 'lig lam' instead of 'light lamp.'

There are thirteen 'lost artefacts' which must be collected by the player to complete the game: A jewelled fruit, a golden fish, a diamond necklace and a diamond bracelet, a statue of Paul Bunyan's blue ox, Babe, a golden net, a magic carpet, a dragon's egg, the 'royal honey', a magic mirror, a crown, a 'firestone,' and a pot of rubies.

Zork the Great and Powerful

The slightly later, but equally legendary game *Zork* was also inspired by *Adventure*, and also originated on a mainframe computer, a DEC PDP-10. A greatly updated version of *Colossal Cave*, *Zork* was co-authored in 1977–1979 using the MDL programming language by a team including Tim Anderson, Marc Blank, Bruce Daniels, and Dave Lebling – all members

Your greatest challenge lies ahead—and downwards. ZORK
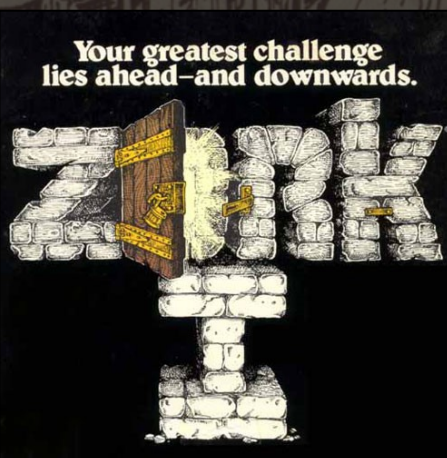
of the Dynamic Modelling Group at the Massachusetts Institute of Technology.

MDL was a LISP-based system offering powerful string manipulation, making it possible for *Zork* to be much more advanced than the original Adventure. While superficially similar in terms of concept and text entry, *Zork* allowed longer and more specific commands. It also used a completely new map made up of multiple areas, each with their own set of puzzles and stories.

Zork was originally so big that it had to be split up into three separate, linked games so that it could be ported to early microcomputers. They were *Zork: The Great Underground Empire - Part I* (later *Zork I*), *Zork II: The Wizard of Frobozz*, and *Zork III: The Dungeon Master*.

This next step in text adventure games was a step up in depth and quality, not just because the three-game format permitted richer and deeper storytelling, but because the program's text parser (command interpreter) not only recognised simple two word commands but also some prepositions and conjunctions.

Zork is said to be set in '…the ruins of an ancient empire lying far underground'. You,
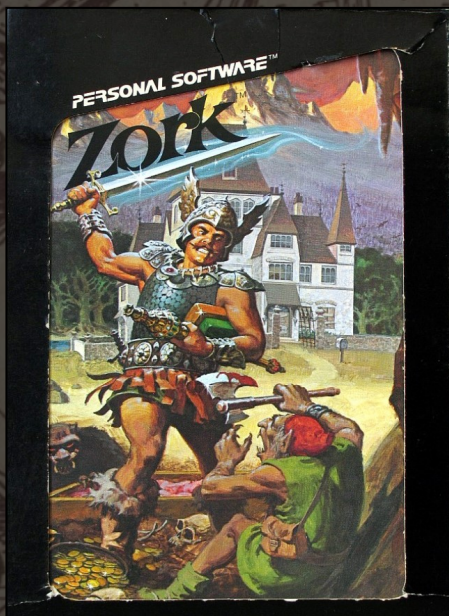
WEST OF HOUSE   SCORE: 0/4
>GET LEAFLET
TAKEN
>READ LEAFLET
WELCOME TO ZORK
      ZORK IS A GAME OF ADVENTURE,
DANGER, AND LOW CUNNING. IN IT YOU WILL
EXPLORE SOME OF THE MOST AMAZING
TERRITORY EVER SEEN BY MORTALS.

   NO COMPUTER SHOULD BE WITHOUT ONE!

      THE ORIGINAL ZORK WAS CREATED BY TIM
ANDERSON, MARC BLANK, BRUCE DANIELS, AND
DAVE LEBLING. IT WAS INSPIRED BY THE
ADVENTURE GAME OF CROWTHER AND WOODS.
THIS VERSION WAS CREATED BY MARC BLANK,
DAVE LEBLING, JOEL BEREZ, AND SCOTT
CUTLER.

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INC. ALL RIGHTS RESERVED.

>※

A CURIOUS INTRODUCTION TO ZORK (APPLE II)

THE TROLL ROOM   SCORE: 40/35
LEADING WEST. BLOODSTAINS AND DEEP
SCRATCHES (PERHAPS MADE BY AN AXE) MAR
THE WALLS.
A NASTY-LOOKING TROLL, BRANDISHING A
BLOODY AXE, BLOCKS ALL PASSAGES OUT OF
THE ROOM.
YOUR SWORD HAS BEGUN TO GLOW VERY
BRIGHTLY.
THE TROLL HITS YOU WITH A GLANCING BLOW,
AND YOU ARE MOMENTARILY STUNNED.
>KILL TROLL WITH SWORD
YOU ARE STILL RECOVERING FROM THAT LAST
BLOW, SO YOUR ATTACK IS INEFFECTIVE.
THE AXE SWEEPS PAST AS YOU JUMP ASIDE.
>KILL TROLL WITH SWORD
CLANG! CRASH! THE TROLL PARRIES.
THE TROLL SWINGS HIS AXE, AND IT NICKS
YOUR ARM AS YOU DODGE.
>KILL TROLL WITH SWORD
THE TROLL IS STAGGERED, AND DROPS TO HIS
KNEES.
THE TROLL SLOWLY REGAINS HIS FEET.
>※

TROUBLE WITH A TROLL

the player, are a nameless adventurer, '… venturing into this dangerous land in search of wealth and adventure'. Over all three games, you must seek to inherit the title of Dungeon Master. These dungeons, which it is your task to successfully explore, house numerous weird and unusual objects and creatures, and comprise many strange locations. Some of those things which you find along your way are, as you might expect, referred to in sequel games and others by Infocom, which is all part of the fun.

Zork I begins above ground, near a white house in a small, self-contained area. The house may yield numerous intriguing objects, including an Elvish sword of great antiquity. A rug hides a trap door leading down, down into a dark cellar, an entrance to the 'Great Underground Empire' (aka GUE), and so your adventure begins. But keep your wits about you, or it may end sooner than you think!

Your mission is to return from exploring the GUE alive and having collected all of the treasures which you will need to complete each adventure. Finding the treasures requires solving a variety of puzzles such as the navigation of mazes and some intricate manipulations. The ultimate goal of *Zork I* is to collect all Twenty Treasures of Zork and install them in a trophy case, whereupon the player will be granted the title of 'Master Adventurer' and the way to the beginning of Zork II will be revealed…

ZORK 1 RUNNING FROM AN ORIGINAL DISK ON THE AUTHOR'S APPLE IIe

Being underground, you will often need a source of light to pick up and use, and these are many and varied amongst the Zork games. For example, a pair of candles, or a battery-powered brass lantern, both of which will only last so long before plunging the player into darkness… If you end up navigating through the dark, you may be grabbed and eaten by a carnivorous creature known as a 'grue', thus ending your adventure in an abrupt and grisly fashion. Unless, of course, you have a grue repellent spray on hand.

Zork went through several versions between 1977-78 before three members of the original team, who by then were known as the 'imps', joined forces to found Infocom as a general programming firm. Marc Blank and Joel Berez had both moved to Pittsburgh and kept in touch, thinking about the future of Zork. When word reached them of the formation of Infocom, they convinced their former colleagues that it would be possible to sell Zork as a commercial product for the new home computers, albeit they were far less powerful, with simpler programming languages and storage systems.

To get round these hardware and software difficulties, Berez and Blank devised their own

computer programming language known as 'Zork Implementation Language', or "ZIL", running within a virtual machine known as the Z-machine. The Z-machine would be ported to various platforms in shells known as the "Z-machine Interpreter Program" or ZIP. The first

INTRODUCTION TO ZORK III (APPLE II)

ZIP was built in 1979. The storage issue required the cutting down of the game until it would fit on a floppy disk, with Dave Lebling drawing a circle on the Zork map and retaining and remodelling around 100 locations from the original, leaving the rest of the map for the sequel games.

The first graphic adventure

It is often said that a picture is worth a thousand words, and while that might be a bit of an exaggeration, the basic principle holds true in gaming as well as in art. Both as a way of adding content to a game, and excitement, as well as giving a commercial edge to whichever game might have the best graphics, the addition of artwork to a basic text adventure was to become a very popular game format, especially with those gamers who were less likely to be grabbed by the excitement of a pithy paragraph of puzzles.

THE INFOCOM IMPS (COMPUTER GAME REVIEW. APRIL, 1996)

The first ever graphic adventure game, *Mystery House*, was created by husband and wife team Ken and Roberta Williams for the Apple II range of computers in 1980. Designed, written and illustrated by Roberta and programmed by Ken, it was destined to be the first in a long line of classics.

At the end of the 1970s, Ken Williams had become determined to set up a company for enterprise software for the Apple II, which by then was dominating the market. One day, he took a teletype terminal to his home so that he would work on developing an accounting program, and while searching through a catalogue he discovered *Colossal Cave Adventure*. Ken and Roberta played it all the way through and after completing it they were so enthused that they decided to look for something similar, but there was very little. In a light-bulb moment, they decided that their future would be in creating adventure games.

Roberta Williams was keen on the concept of text adventures, but rapidly concluded that if it were possible to add graphic images, the player's experience could be considerably enhanced. She pondered on the idea of designing her own game, and so conceived *Mystery House*, which was based on a detective story inspired by crime writer Agatha Christie's 'whodunit tale', *And Then There Were None*.

Getting the picture

Amazingly, once Roberta had created seventy simple two-dimensional drawings upon which the ground-breaking new game would be based, Ken Williams took just a few nights to program the game itself on his Apple II. When it first went on sale, *Mystery House* was packed in individual Ziploc bags, each containing a 5¼-inch floppy disk plus a photocopied sheet describing the game. It was sold in local software shops in Los Angeles County, and to the amazement of the couple, the game was hugely successful, rapidly becoming a best-seller at US$24.95. Eventually, the game's sales rocketed to a then-record 10,000 plus copies. In 1979, the Williamses founded On-Line Systems, which would become Sierra On-Line in 1982, and so another gaming legend was born.

The mystery of Mystery House

The game, which is relatively simple, begins outside an abandoned Victorian mansion. Climbing the steps to the door, the player soon finds themselves locked inside the house with no obvious escape and no other option but to explore. The mansion itself is full of intriguing rooms and besides the player, seven other characters: Dr. Green, the surgeon; Sally, the seamstress; Tom, the plumber; Joe, the gravedigger; Sam, the mechanic; Daisy, the cook and Bill, the butcher.

To begin with, the player's task is to search all over the house to discover a hidden treasure of jewels, but before long, sinister events begin to take place, and he/she comes across dead

bodies from amongst the other characters in the game. Clearly, a murderer is on the prowl in the mystery house, and the player must find out who and where the antagonist is, or become the next corpse on the list...

Sierra On-Line became one of the biggest and most valuable companies of its kind, producing some of the best-loved adventure games of all time, and in 1996 was sold when Ken and Roberta Williams decided to retire. Today, Sierra is an Activision Publishing Ltd brand.

The legacy of the Mystery House

Amazingly, but perhaps not surprisingly, being the first of its kind, Mystery House went on to sell as many as eighty-thousand copies around the globe, starting a new fashion in gaming. Graphic adventure games were a new concept and went on to become one of the favourite modes of interactive fiction during the home computer revolution of the early 1980s-90s.

Mystery House was re-released in 1982 through the SierraVenture line, which produced a number of early Sierra games until 1983. In 1987, the game was released into the public domain as part of Sierra's seventh anniversary celebration.

ENTER G FOR GAME OR I FOR INSTRUCTIONS※

MYSTERY HOUSE TITLE SCREEN
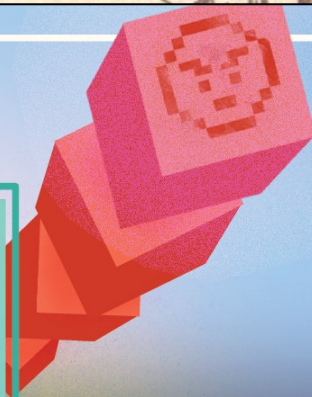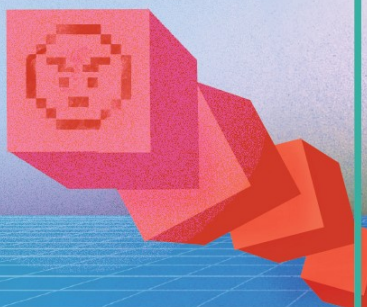
MYSTERY HOUSE FOR THE APPLE II WAS THE FIRST ADVENTURE GAME TO USE GRAPHICS IN THE EARLY HOME COMPUTER ERA

IN THE OLD, DUSTY LIBRARY AT THE MYSTERY HOUSE
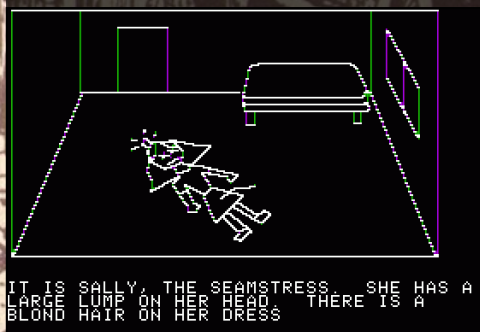
SALLY THE SEAMSTRESS IS NOT LOOKING WELL
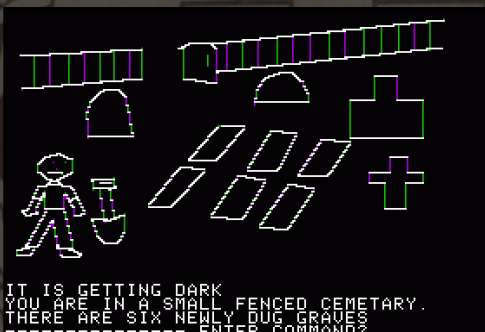
FRESHLY DIG GRAVES AT THE CEMETERY

Adventuring today

While a huge range of different types of adventure games were developed for home computers, arcade games have always been more popular, so adventures are often thinner on the ground if you're looking to buy original works –though this makes them all the more collectable. Thankfully, there are thousands of 'abandonware' adventure games for past generations of computers still available to download online, to be played on original hardware or in emulation, and with a little technical knowledge the avid adventurer, especially the Apple user looking to go way back to a time when adventuring meant a real step into the unknown, can easily amass enough games to keep him or her occupied for a lifetime!

But what do you need to go adventuring on an early Apple? Well, the commonest and best value machines around are generally the Apple IIe range, which were the company's longest-produced eight bit computers. They turn up fairly regularly on eBay, and in the UK at least they can be picked up in working order, with one or two 5.25" disk floppy disk drives, for between £200-£350. You can also pick up the compact Apple IIc, which has a built-in drive, for similar prices, though they are less common. In the USA, where Apple's eight-bit range was understandably far more popular, they turn up regularly for much less, if you're prepared to do some cleaning and restoration work.

You'll also need a monitor with a composite video input; the Apple II may work on a CRT or LCD TV with an RCA/Phono composite input and a simple cable, but in general a composite colour or green screen monitor will be a better bet, especially for authenticity. The IIc-dedicated 9" Apple green screen with a special stand which fits above the computer is particularly cute and takes up little space.

If you don't want to splash out on old Apple kit, or would prefer to try a few games before you buy, there's always emulation. Quick and relatively easy is the *Virtual Apple][* web browser based emulator, where after a bit of fiddling installing plugins you can just click and play. There are a number of Apple emulators downloadable for free from the web. One place to look for them is the Zophar's Domain website. Alternatively, the most versatile emulation system for Mac OS X and macOS Sierra is offered by the commercial emulator software Virtual][. Web links to all these are given below.

You will occasionally be able to pick up original Apple II adventure games, though they can be pricey. A more technically involved way of acquiring a good games collection for emulation or transfer to floppy disk is to download 'abandonware' games from online sources such as Asimov, Apple II Disk Server, My Abandonware and Apple2Online.

To get these games onto floppy disk for use with actual Apple II hardware, the best bet is to use a PC with a serial port and ADTPro software. You can also do this with a IIe (not a IIc) via a link between your PC's speaker output and the Apple's cassette ports, and this is fairly easily done via the Apple II Disk Server. Again, see links below.

Of course you could always 'modernise' your Apple II by adding a memory card device such as the CFFA3000, and filling it up with

downloaded disk images. But that would not be quite the same, would it?

However you care to step into the exciting and challenging world of interactive fiction on your Apple II, there is definitely a whole, wide world of adventure waiting for you out there!

Links

Virtual Apple][browser emulator:
http://www.virtualapple.org/

Virtual][emulation software:
http://www.virtualii.com

Apple II emulators on Zophar's domain:
http://www.zophar.net/apple2.html

Asimov:
ftp://ftp.apple.asimov.net/pub/apple_II/images/games/adventure/

Apple II Disk Server:
http://asciiexpress.net/diskserver/readme.html

ADT Pro software:
http://adtpro.sourceforge.net/

CFFA3000:
http://dreher.net/?s=projects/CFforAppleII&c=projects/CFforAppleII/main.php

Online resources:
http://apple2online.com/

Scott Adams Grand Adventures:
http://www.msadams.com/index.htm

Retrograde77: Immortal C64 podcast http://www.akumadesigns.com/ic64 / Real sids :)

55
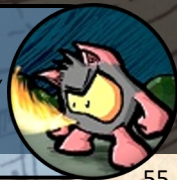
AMSTRAD CPC GAMES 2016

by George Bachaelor

What a year, 2016 has been for Amstrad CPC game releases.

A recent poll conducted on the Facebook group, Amstrad CPC Classic Gaming and Demos, **https://www.facebook.com/ groups/1066160190075999/** shows that 2016, was a year to remember for Amstrad CPC enthusiasts, with a whopping estimated 73 new individual games created and developed. One of the members of the group suggested that the actual figure of new CPC games was around 81, that's finished games, game demo's, unfinished games and unreleased to the public games.

It's quite a staggering result. For those who are unaware of the Amstrad CPC range of computers, they were first put together on the assembly lines in 1984, enjoying success primarily in the U.K. and Europe for about a decade as a home computer and video games machine. Production of the Amstrad CPC range ceased, when company founder, Sir Alan Sugar, pulled the switches off the assembly lines in 1990.

Four years on from 1990, commercial games were still being made for the Amstrad CPC and the newer updated CPC PLUS and GX4000 systems, the last commercial game, Megablasters by Radical Software, was reviewed in Amstrad Action's, issue 111, December of 1994.

In that particular year, according to CPC POWER website, **http://www.cpc-power.com/ index.php?page=database**, I was only able to find a total of 35 games released in 1994. That's a combination of commercial and public domain (PD) or freeware games.

So what is driving this revival in Amstrad CPC gaming? For the past for years, an annual game creation contest, called the #CPCRETRODEV has been run by the University of Alicante, in Spain.

The competition is open to anyone, not just the university students, who can code and create a game running on an Amstrad 464 machine, BASIC 1.0, for the less knowledgeable, that's 64K in memory.

It caters for both novice and experienced coders offering some nice prize money for a BASIC and PRO category. In 2015 there were 36 game entries, in 2016 there were two less, with 34 game entries.

While the 2016 #CPCRETRODEV game contest attributed for almost half of the games released for the Amstrad CPC in 2016, the CPC range is being well supported by individuals and group coder's such as Juan J. Martinez, The Mojon Twins, 4Mhz and Egotrip. All of them have constantly released some of the most gorgeous, innovative and highly playable games on the Amstrad CPC / Plus range, just as high a standard as when the computer was in production and at its peak in the late 1980s.

Some of these coder's are creating and using their own game engines, while others are using new developed coding tools such as the 'C' language called CPCtelera.

You add online community forums, such as the CPCWIKI, social media sites like Twitter and Facebook, the one time computer that struggled in 1994 to produce games is undergoing a resurgence, some might say its growing again, gaining more interest and reaching more people and a wider audience.

Some of the best Amstrad CPC games of 2016 include Princess Amy: A Prelude to Chaos (A Zelda type maze adventure), Outlaws (run 'n gun shooter), ADIOS A LA CASTA EPISODE 2 (platformer), Golden Tail (platformer), Vector Vaults and the 128KB Doomsday Lost Echoes, which is probably the best ever graphics text adventure you will ever play on an Amstrad CPC / PLUS system.

Other notable CPC games to check out include Imperial Mahjong, Chibi Akumas (massive bullet hell shooter), Sir Ababol 2 (platformer), Virus Dog 5th at 2016 #CPCRETRODEV and Hire Hare (3d isometric, 2nd at the 2016 #CPCRETRODEV).

To download all the 2016 games releases and play via an emulator you can go to the following websites -

http://cpcrulez.fr/info-2016.htm

http://www.cpc-power.com/index.php?page=database

Iain Rockliffe:

Long live Retro.

GOLDEN TAIL

黄金の尾

Reviewed by Paul Monopoli
Amstrad CPC

Golden Tail, or 黄金の尾 for our multi lingual readers, is a new game by Juan J Martinez. As we have seen, 2016 was a big year for new Amstrad games, and Martinez has proven himself to be one of the newest 8-bit home-brew heroes on the scene. After Golden Tail and the single screen platformer, Magica, I can't wait to see what Martinez has planned for 2017.

The Golden Tail is a talisman that was used by a shogun to besiege Osaka castle. According to the story, the talisman will reveal the true nature of the person who uses it, and I think it's safe to say that this shogun wasn't a very nice chap. Someone called Bishamon (the character from Capcom's 'Darkstalkers' series maybe?) scattered the Golden Tail into 30 pieces, across the doomed valley and castle. As Kitsune, your goal is to retrieve the pieces so that the talisman can be reformed.
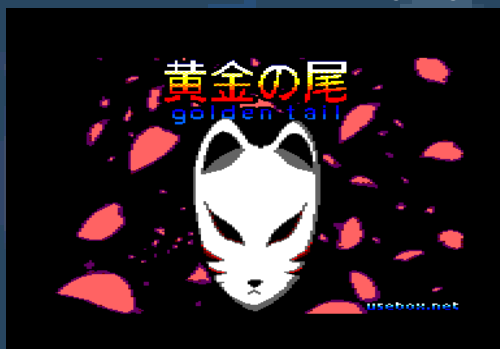
Kitsune is a blue haired lad whose quest begins on a bamboo filled screen with a small pool in the middle. As you eye off the pool, wondering where to begin your jump, you notice a floating head charging towards you. With little time to move you press the fire button in an attempt to kill the nasty, but wait! You've disappeared and the floating noggin is still there. Hold on, you've just reappeared! What

is going on here?

Well, it appears that Kitsune is a practitioner of kõga magic, a non aggressive art which allows the user to disappear for a short time, thereby avoiding any enemies. The magic also enhances Kitsune's abilities, allowing him to move faster and jump higher. The problem is, as the magic makes you invisible it's hard to see exactly what you're doing. This key element serves as the game's biggest learning curve. Should I jump, then use my magic, or use the magic first? Should I stay still and push fire to avoid an enemy, or push a direction first to get away from them? Will I end up in the right spot, or will I end up in the wrong place and possibly lose a life?

As you figure out the game mechanics you're going to be seeing the Game Over screen a lot! I confess, on my first few tries I died very quickly, and at this point I assumed that my lack of gaming skills would mean that this would be a short review. Thankfully the controls are precise, and every time that I played I progressed a little bit further. Potions are strewn throughout the game to cure any injuries that you may have incurred along the way.

The graphics in Golden Tail are colourful, with some nice chunky mode 0 graphics. Kitsune has been animated quite nicely, with smooth walking and jumping animations. The music on the title screen has a slightly oriental theme to it, while the in game music is rather spooky. It appears that a lot of care has been taken in the presentation of this game, as it has with other games from the Martinez stable.

While it is easy to dismiss this as a hard game that looks good, Golden Tail is definitely worth investing time in. Mastering the kõga magic is a very rewarding experience, and will allow you progress just that little bit further each time you play.

EIGHT BIT SCORE

GRAPHICS Nice colourful graphics	8
AUDIO Very polished music tracks that set the scene nicely	9
PLAYABILITY You will be pulling your hair out as you try master kõga magic	6
LASTABILITY Mastering the art is a rewarding experience, but the game itself is a bit short	7
OVERALL It's a difficult game, and that might be enough to turn some people away. If you stick with it you'll enjoy one of the most original gaming experiences of 2016	7

THE AMAZING SPIDERMAN AND CAPTAIN AMERICA IN

DR DOOMS REVENGE

Released 1989, Amstrad CPC version reviewed.

Also available for the Commodore 64 and Sinclair ZX Spectrum

Reviewed by George Bachaelor

Captain America arrives at Doom's castle, a robot guards the entrance, then Captain America encounters Rhino.....

Meanwhile, Spidey looks for a way in, "goodbye you animated scrap pile". As Machette lurks, Spidey asks "what have i gotten myself into?"

Dr Doom, the marvel comic worlds incredibly twisted, scientific evil genius, has stolen the ultimate weapon, a C4V.G. thermonuclear missile and is going to destroy New York with it.

Never ones to shy away from a battle, super heroes Captain America and Spiderman are quick to take up this 5 level challenge but Dr Doom is no fool, he has employed the services of a robot and some of Marvels most evil hench men Rhino, Batroc, Boomerang, Electro, Grey Gargoyle, Hobgoblin, Eduardo Lobo, Oddball and Rattan to guard his castle and ensure his evil plans succeed.

Three difficulties, beginner, hero or super hero can be selected as you take on these villains in separate fights, either as Captain America or Spiderman in a street fighter-esq beat em up. You have no lives just an energy bar, once that's depleted you start over again. Each fight is set in one of the rooms of Dr Doom's castle, as you progress and defeat your enemies you get closer to taking on Dr Doom himself.

The in game graphics are quite good, the representation of all the Marvel characters is beautifully defined with very good use of the Amstrad CPC mode 0 colour palette. You can perform a range of different moves such as somersaults, kicks, punches, throwing Captain America's shield or shooting spider webs and clinging to the ceiling, playing as Spiderman.

So much attention to detail went into graphics and comic story line cut scenes, unfortunately gameplay and sonics are almost forgotten about. Fight animations are not smooth nor that exciting or interesting and becomes quite repetitive. There's no entertaining feel to it such as in the game IK+. Selecting different moves can be rather frustrating at times as well. Sound is non existent, only bleeps when you or the enemy land a hit and there's an annoying banging noise when a foe is defeated.

There also appears to be a bug of some sorts in the game as when you are defeated a screen shot is meant to depict New York being blown up but all you see is a corrupted screen.

EIGHT BIT SCORE

GRAPHICS Stunning colours, detailed artwork and comic style cut scenes are a stand out feature.	**9**
AUDIO Very poor sounds to say the least.	**2**
PLAYABILITY Easy to pick up and start fighting your way through the game but lacks quality fighting gameplay, unfortunately most of the attention was spent on graphics.	**5**
LASTABILITY Range of enemies and difficulties but pretty much the same each time.	**6**
OVERALL Brilliant graphics and that true comic style feel, let down by poor gameplay and sounds.	**6**

The Amstrad User

More than just a magazine!

by Paul Monopoli

Launched in Australia in 1985 by AWA, the Amstrad CPC line of computers were well received in the land down under. With the absence of the ZX Spectrum the 8 -bit war became a 2 horse race, with Amstrad CPC enthusiasts fighting the good fight with Commodore 64 fans. Kids all over the country battled on within the confines of the schoolyard, arguing over games and hardware. Though many battles took place, it was a war that was never won, though not through a lack of trying.

NAME: THE AMSTRAD USER
ORIGIN: MELBOURNE, AUSTRALIA
PUBLISHER: STRATEGY PUBLICATIONS
COMPUTERS COVERED: AMSTRAD CPC, PCW, PC
NUMBER OF ISSUES: 71 (FEB 1985 - DEC 1990)

The schoolyard was an appropriate place for this war, as the computer that was housed within the walls of its school lab would often determine the system that the family owned. Within South Australia, Para Hills East Primary School housed a lab of Amstrad CPC6128s with Star printers, while Mount Barker High School had a room of Amstrad CPC464s. Banksia Park Primary School featured Commodore 64s, as did Linden Park Primary School. Upon speaking to former students, it is evident that the lab computer would often win many of the battles at their respective school.

The BBC Micro was also a popular fixture in computer labs, with Salisbury East High and St Paul's College housing a room each, full of these systems. However, their popularity as a gaming machine never really reached the schoolyard.

As the computer wars escalated, students would look to magazines to find their required ammunition. The goal would always be to destroy your opponents in an argument by boasting about the best port, or the latest exclusive game. Amstrad Computer User and Amstrad Action were available in Australia, but many of the articles in these UK based publications were simply not relevant on the other side of the world. Another problem was that these magazines reached Australian shores 3 - 4 months after their release in the UK. Strategy Publications, a Melbourne based publisher, took it upon themselves to release an independent publication that was current and relevant to the Australian market. This magazine became known as The Amstrad User (TAU).

Many of the magazine's earlier articles credit local writers, with contributors receiving $10 per page. If you submitted a letter or cartoon you would receive $5. Looking back on it, one could hardly make a living on this wage, even in 1986. By 1990 inflation took hold, and a cartoon would get you the princely sum of $10, while a writer would receive a bank bursting $15 per page. While letter writers no longer received any payment, TAU continued to receive a significant amount of mail.

Early issues provided a focus on what was happening with Amstrad computers in Australia, as well as promoting local user groups. While not as witty or charismatic as Amstrad Action, or as serious as Amstrad Computer user, TAU allowed Aussie coders and enthusiasts to contribute to the wider Amstrad community. Plus, seeing local advertisements in the local currency was a welcome change.

While the magazine appeared to be doing well, issue 39 introduced a disclaimer stating that:

"From time to time, some articles appearing in The Amstrad User will be reproductions from UK publications Amstrad Action and 8000 Plus. These are printed under an agreement between Strategy Publications and Future Publishing Ltd, Bath."

While this came as a surprise, it should be noted that in 1988 PC and PCW content was starting to increase within the pages of the magazine. With that in mind, it's possible that less CPC content was being contributed. This comes as even more of a surprise, as the CPC had a life that extended well into the early 90s.

By Issue 47 the magazine introduced content from CPC Computing (formerly Computing with the Amstrad.) While about half of the magazine was still CPC based, it was clear that this was going to reduce. By issue 68, the magazine was primarily a PC magazine, with a small amount of CPC content.

While the content remained solid, and UK magazines were now being sourced for articles, external influences caused TAU to
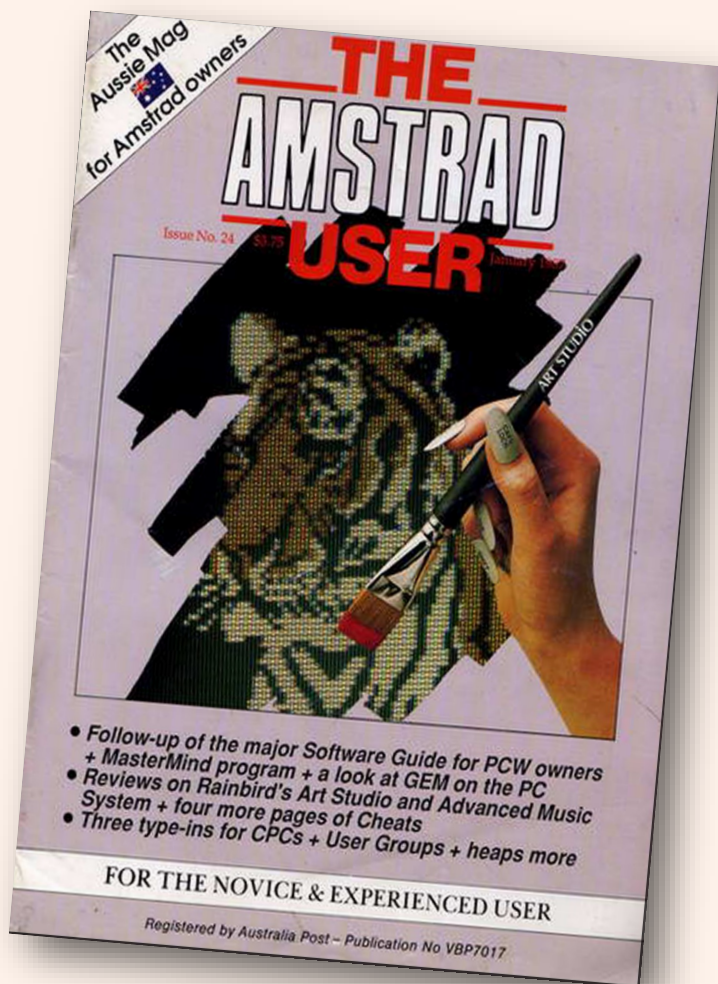
become much more than just a magazine. In late 1988 Amstrad had setup an Australian branch, taking over distribution of their CPC line and introducing a new line of PCs. While this move should have ensured the success of the humble 8-bit line, it was not to be. Shortly after establishing their local offices Amstrad decided to drop support for the CPC, choosing to focus their energies into their successful range of PCs.

For the Australian CPC fan this was a disaster. Software was already scarce, with big retailers such as Radio Rentals usually being one of the few places that you could purchase anything Amstrad related. Piracy became the only

NEWS NEWS NEWS NEWS NEWS NEWS NEWS NEWS

The PCW9512 - It's official

All the rumours and speculation about this addition to the PCW range came to a halt with the official release in the UK last month.

If you read last month's issue, you would have seen our report giving the most plausible rumours abounding at the time. It was almost right - the surprise came with the announcement of the disc drive configuration. The double density drive B (which was expected to be removed) has been promoted to an A drive.

So, what else is fact? For a start, out goes the green screen and in comes a paper white high resolution monochrome monitor - the same resolution as the present PCW's but white on black instead of green on black.

The disc drive, as already mentioned, will store 720k on the main drive into which your start of day disc goes. The standard PCW9512 will only have one disc drive, but there is an option of a second identical drive, which with the standard 512k M drive makes for a powerful machine with a lot of storage capacity - 4 times as much as the IBM PC! Amstrad state that it will be compatible with software on the present PCW A-drive single density discs in much the same way as the present B drive on an 8512 can read an A-drive disc. So anyone wanting to upgrade and carry on using their old data files can breath a sigh of relief. The drive(s) are housed 'PC style' in a unit under the monitor.

Another change towards the PC style is the keyboard. It's more spread out and the function keys [+] [-] [ALT] [EXTRA] [PTR] and [CAN] are divided off into a separate section at the left.

Amstrad have tackled the problem of the PCW printer by including what they describe as a 'high quality daisywheel printer' with bold, double strike, underline, superscript and subscript. It is claimed to print at 20 characters per second, about equivalent to the Near Letter Quality speed of the 8256/8512 dot matrix printer. One advantage will be the 15 inch printer which will allow for paper up to 15.5" wide, such as A4 on its side - a feature that will suit accounting and legal departments. The printer fits into the PCW in the same way the old PCW dot matrix does and depends on the hardware in the PCW - in other words you cannot use it with another computer. But if you cannot live without a fast dot matrix printer for drafts, there is an inbuilt Centronics parallel interface into which you can plug your favourite printer.

The PCW9512 will come bundled with LocoScript2 plus the LocoSpell spell checker and the LocoMail mail merger - obviously aiming more directly at the office environment.

As reported last month, importers Mitsubishi Electric AWA advise that the 9512 will not be available in Australia until early in 1988. No Australian price has been announced.

SAGE/PCS on show

Personal Computer Software, exclusive distributors of Sagesoft products, were available for discussions and demonstrations of the Sage PC software range at the ACE '87 Exhibition in Melbourne at the beginning of September.

Among the products on show was a new range of low-cost PC learning software. The competitively priced software covers:
• PC Foundation (MSDOS & PC Basic)
• PC Accounts
• PC Spreadsheets
• PC Database
• PC Telecommunications
• PC Wordprocessing
• PC Touch Typist

Each product is designed to provide an interactive self-teaching software package related to the relevant Sage PC software program. Each package is presented in an A5 plastic folder, with disc and slim workbook. They will retail at $89 (including tax).

Also on display, a world premiere in fact, was SAGENET - a local area networking package. Consisting of both hardware and software, this product is aimed at the low cost business computer market. The starter pack includes 2 boards, cables and software. It runs all Sage Networked Accounting Systems, is NetBios compatible and can handle up to eight users with no speed degradation. The proposed recommended retail price is $1150 (including tax).

Accountant, Accountant Plus and Financial Controller are now available in networking versions, and run on SAGENET or any other MSDOS compatible network. Their recommended retail prices (including tax) are $900, $1200 and $2500 respectively. More details can be obtained from PCS on (02) 923 2899

Campaign against child abuse

In 1986 the UK Software industry, through Softaid, raised over $700,000 for the now well publicised Live Aid movement.

This year, by way of a campaign called BACK (Battle Against Cruelty to Kids), the organisation hopes to raise money to assist in the establishment of a network of special child protection teams under the supervision of both the National Society for the Prevention of Cruelty to Children and the Royal Society for the Prevention of Cruelty to Children. The money will be raised from sales of donated entertainment software which will be available as a BackPack series for different machines.

The Amstrad CPC compilation, which will contain Xeno, Deactivators, Marsport, Monty on the Run, Night Gunner, Knightshare, Nomad, Tempest, Starion and Starstrike, will sell for under £10.

Whether the pack will make Australia is not known, but it may sow the seeds of a similar worthwhile campaign to benefit less fortunate young Aussies.

Forthcoming attractions from Gremlin for CPCs

Death Wish 3
The computer software rights to the blockbuster film epic DEATH WISH, starring Charles Bronson, have been snapped up by top software development house GREMLIN.

Bronson plays Paul Kersey, New York's own unique brand of justice-fighter who's out to rid New York of the punks and creeps who infest the streets. Convinced that the Chief of Police is powerless against the underworld, Kersey adopts his own attack strategy. Armed with his famous 475 Wildey Magnum, a pump-action shotgun, a machine gun and a rocket launcher (I'm surprised he can move around - Ed), Kersey means business, and Gremlin's development team are currently in the process of capturing this outstanding story on screen.

Gremlin say "this is one of the most exciting ventures the we have been lucky enough to work upon so far. It offers our creative team a fantastic base from which to produce and outstanding, challenging game, featuring incredibly lifelike animation".

We wait with bated breath.

Coconut Capers
Another game from Gremlin, this time starring "Jack the Nipper". Jack and his family have been deported to Australia, but fortunately for us, he doesn't like the idea so parachutes from the plane, quickly followed by his father, into a tropical jungle.

True to form, Jack tries hard to be as naughty as possible which lasts for as long as he can keep away from his pursuing father. A special surprise awaits Jack if he reaches 100% on the Naughtyometer.

The Plonker
A rather strange name for a new product which appears to have taken the UK by storm. The Plonker is a small device which holds 4 discs and can be easily attached to the side of your computer keyboard or monitor. The idea is to raise them above the area of possible damage due to coffee spills and the like. Within the first three days of its release at the Amstrad Computer Show (don't they have a lot in the UK) over 1000 units were sold.

An Australian distributor has been selected but to date has not made themselves known.

The Thingi
Another innovative idea which allows you to suspend any paperwork from the side of your monitor.

We've been using them in the office here at The Amstrad User for a couple of months and can honestly say we can see things in a different light. Even neck-aches seem to have disappeared.

So convinced are we that everyone should have one (even for Mum as a 'memory board' attached to the fridge), we have purchased a number to be supplied, post free, at $24.95 each. See the inside front cover for details.

The PCW 9512 - released at the London Personal Computer World Show in September

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option for many owners, as while Radio Rentals didn't sell games, they did sell blank Amsoft discs well into the 90s. If one person purchased a game from the UK, by mail order or travelling there, you could be sure that it would be copied many times over by their friends, and then the friends of their friends.

The Amstrad User came to the rescue by bringing much needed Amstrad supplies to the public. Starting in issue 47, the back of the magazine featured a large mail order catalogue. Games, utilities, hardware, dust covers, and early issues of TAU were all available through this service. All cheques were payable to Strategy Publications, meaning that this was all put together by the publisher. In the dying days of Amstrad Action many CPC fans screamed for a service of this nature. Fortunately Australia had a publisher who was more than willing to continue support well after the company had abandoned their 8-bit wonder.

This was a great idea, but how many Amstrad owners purchased, or even knew of, TAU? Unfortunately no circulation data appears to be in the magazine, though it continued for a further 24 issues, before ending in December 1990. This was the year that Amstrad launched the Plus range of computers, a move that could have reinvigorated the market in Australia. Sadly, Amstrad Australia refused to start supporting the CPC line again, and as a result the 464 and 6128 Plus never appeared down under.

In January 1991, Strategy Publications released The PC Mag, a continuation of TAU, but with a very heavy focus on the PC market. The disclaimer suggesting that some articles may be reproductions was gone, but so was most of the CPC content. The mail order service remained, and as such they were able to review the latest games as they became available, but they rarely did.

On the surface, one big problem appeared to be The PC Mag logo. Remember that the shelves at most news agencies will obscure the bottom half of a magazine. The PC Mag logo ran down the left side of the cover, with 'plus, the Amstrad User' at the bottom, in small writing. This small, sub title would have been hidden under the newsagent magazine shelves, meaning that many CPC owners would have missed out on it. Another big problem seemed to be the lack of non PC content. It could possibly have been a more successful magazine if they had dropped the CPC content altogether, and focused on their core audience.

The PC Mag was discontinued in September 1991 and attempts to find out what happened to Strategy Publications lead to dead ends. There is no information online that could be found in the preparation of this article, and within the pages of the magazine, the names of the editor and staff are never mentioned.

Freelancing contributors are named, but no one who worked for Strategy Publications.

As a result this history of The Amstrad User must come to a close. Hopefully someone who worked on the magazine will be able to come forward to fill in the gaps within the story, but until then its audience is left with many more questions than answers…
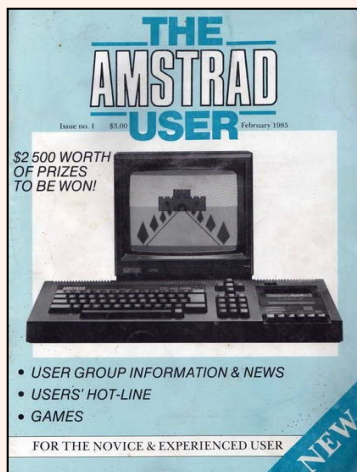
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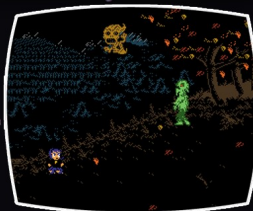
The Last Bit

The latest retro news, rumours and releases.

THE UNKNOWN REALM

Unknown Realm: The Siege Perilous is a 8-bit RPG game from a successful Kickstarter which raised over $126,000 in funds. It will be released for the Commodore 64 / 128 in PAL and NTSC along with a PC and Mac version.

Keeping with tradition, the game is an open-world, turn-based medieval fantasy. Your character is free to roam dark dungeons, slay dragons, explore mysteries as well as set sail on the high seas.

The game features a rich, vibrant world with day and night cycles and seasonal monsters. Combat is fun focused with hot keys for primary or secondary weapons toggle. While turn based, combat feels like real-time and there's an optional zoom as well.

The PC versions allows for different palette modes to simulate various 8-bit platforms such as the Amstrad CPC, Sinclair Spectrum and the Nintendo Entertainment System.

While the Kickstarter has ended, you can still purchase a copy from Megafounder: **www.megafounder.com/ unknown-realm**

UNKNOWN REALM

SPECTRUM IN THE WILD

The problematic crowdfunding project, the VEGA+ handheld was 'spotted in the wild' at a recent retro gaming event offering much needed hope for backers of the project.

For those who don't known, the VEGA+ is the second project from Retro Computers Limited to create a handheld Sinclair ZX Spectrum game console. I say 'console' because the device doesn't have a keyboard like the original Spectrum computer. It was to include over 1,000 licensed games with display specs to complement to original hardware as much as possible.

The project went into difficulty with infighting and legal battles. It was originally funded on Indiegogo with £512,580 (US$ 635,000 approx) on the 27th of March, 2016. Missing delivery deadlines to the annoyance of backers, the last being February 2017, Indiegogo suspended the project for "delivery delays and a lack of communication with backers."

Obviously there's a lot of anger from backers, many demanding their money back but with a working prototype shown to the public, hopefully this story will have a happy ending for both the backers and Retro Computers Limited. **retrocomputerslimited.com**

THE VEGA+ FROM RETRO COMPUTERS LTD

RETRO BOOKS

If you read computer magazines from back in the 1980s to the early 90's then you have probably seen the amazing artwork of Oliver Frey. *The Fantasy Art of Oliver Frey* is a much expanded version of the 2006 release by Thalamus Publishing covering the biography of the man as well as his iconic artwork.

The first forty or so pages of the book covers Frey's biography from his early years to being a part of Newsfield Publishing and beyond. It's a well written and enjoyable read which gives a great insight into Frey's work. The rest of the book, over 200 pages covers Frey's artwork along with a little bit of text explaining each piece. You may have seen of the artwork on the covers of Crash, Zapp 64 or Amtix magazine but never in all its glory. There's no text or other graphics to obscure the wonderful graphics, it's certainly candy to the eye. I enjoyed reading it as much as I did staring at the pages. Well worth checking out. The book is £19.99 Sterling from Fusion Retro Books at: **fusionretrobooks.com**


THE FANTASY ART OF OLIVER FREY

8-Bit Kids - Growing Up With the Commodore 64 is another book I recently received from a backed Kickstarter project. Written by Koen De Brabander, the book is dripping in nostalgia and is quite a personal trip back in time from the author's memories. Having said that, it is
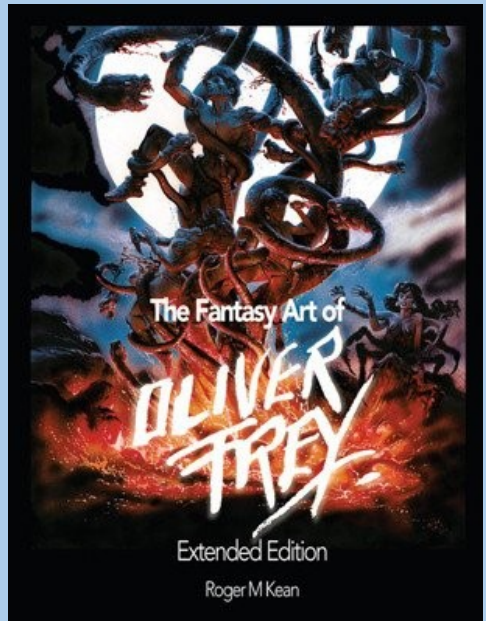
enjoyable to read and retro computer fans can easily relate to his childhood experiences with computers. It certainly brought back memories my early experiences with computers.

The book is somewhere between A5 and A4 in size and is graphically stunning. At almost 150 pages there's not as much text as you would think with the main font being of a large size along with the old time adverts and photos from the period. However this is not a cop out to save on writing as they really do add to the book. 8-bit Kids is also available from Fusion Retro Books for £19.99 Sterling. See the link above to get your hands on a copy.
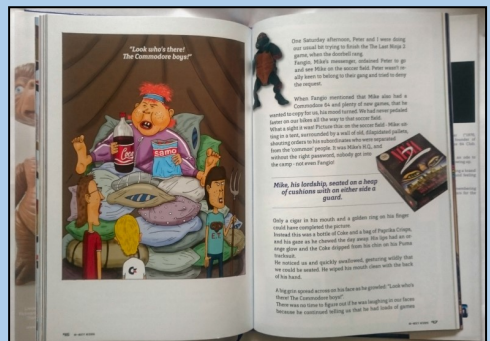
8-BIT KIDS: GROWING UP WITH THE COMMODORE 64

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