# KILOBYTE Magazine

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PORTRAIT: ALAN SUGAR · THE ART OF FLOPPY DISK SLEEVES · INTERVIEW: JENS SCHOENFELD NINTENDO NES CLASSIC MINI · GAMESCOM · MY LIFE (C64) · MAZE OF THE MUMMY (C64) · AND MORE





# CONTENT

### FOCUS ON CHIPS 'N' GAMES



# PORTRAIT

### THE SELF-MADE MAN



It was as late as 1984 when Alan Michael Sugar decided that it was time to get into the home computer business. By then, the industry was already flooded with computer manufacturers. In Britain alone there were Acorn, Camputers, Commodore, Dragon, Grundy, Jupiter, Memotech, Oric and Sinclair amongst others. It was a boom time for home computing, and with the CPC464, Amstrad joined the bunch with a competitive priced machine. Coming from the hi-fi business, Sugar knew what was important: Deliver an inexpensive product with solid quality for the mass market. In a way, this philosophy matched the one from Commodores Jack Tramiel.

### FROM RAGS TO RICHES

Alan Sugar, born in 1947, grew up in a poor family and started working as early as 14. He engaged in different ventures before he founded AMSTRAD, an abbreviation for Alan Michael Sugar Trading, at the age of 21. His first product, hi-fi turntables, sold so well that soon other audio equipment followed. When computers proved to be a winning horse in the early 80s, Sugar saw another business opportunity which he took by releasing the CPC464 in April 1984. Altough the competition with Sinclair and Commodore was tough, AMSTRAD managed to position the CPC well in the market for cheap computers. So much so that in 1986, he bought the computer division of Clive Sinlcair, whose company had



Alan Michael Sugar, founder and long time CEO of AMSTRAD, is one of the key figure during the home computer era of the 1980s in Europe. Today, Baron Sugars fortune is estimated to around 1.4 billion Euros.

gone into serious financial trouble through ventures that didn't pay off. After the purchase, Sugar revamped the Sinclair models and sold them side by side to his still successful CPC line of computers. Both 8bit lines were kept alive until the early 90s. For Sugar, as for Tramiel, the technology wasn't so much about bits and bytes, but about solving problems at the most affordable price. That is why his line of portable computers introduced in 1992 still used the Z8o processor. Sugars interest in computers held up for around ten years. By then, AM-STRAD had trouble keeping up with the PC market and concentrated on telecommunications instead. In contrast to Sinclair or Dragon, Sugar never tried to capture a part of the American market and focused on Europe instead. With success: The CPC series alone sold around three million units. And today, Sugars assets are estimated 1.4 billion Euros. (bk)

Because of all the wires you had to struggle with, many Sinclair computers were ending up thrown under the bed. Our computer was too big to be thrown under the bed.

Alan M. Sugar







# LAST GEN

### NINTENDO'S NEWEST CONSOLE IS AN OLD ONE



Nintendo goes retro:
The promotion video
for the NES Classic
Mini uses all iconic
elements of 80s commercials: the neon grid
before a starfield, the
tough sounding male
voice actor, a VHS look
and even Nintendo's
slogan: "Now you're
playing with power."

When Nintendo submitted a trademark for its classic NES controller as early as April 2015, the ones who noticed it raised an eyebrow, very briefly thought about the possibility of a new product - and then discarded that idea as quickly as it came and forgot all about it. Who knew they were actually taking the first steps to bring back the NES? However, it may seem a bit late for this: A bazillion (rough estimate) clone consoles from China already flooded the market so that foremost third world countries could get a taste of the classic 8bit videogame charme they didn't know they missed. Nintendo fanboys and videogame nerds looked out for these strange and not

very well made consoles to add them to their collection. The one thing these machines all had in common: Their controllers sucked. So after a long history of poor and unlicenced NES clones, Nintendo decided to do the job themselves and bring back some (official) nostalgia to the western markets: The NES Classic Mini. The announcement was a surprise to everyone: gamers, the press and insiders alike. Who thought they would do something like that? And the console design made one believe - if only very briefly - that this new machine would be compatible with the old one. But it is not: neither can one insert old cartridges, nor can old controllers be plugged in. You can,



however, at least use the new NES controllers with your Wiimote.

### BANG FOR THE BUCK

So what will you get for the estimated retail price of 60 US\$ or 70 EUR? Basically, you'll get some emulation hardware with a new emulator (so they say) in a nice case reminiscent of the original, but which is so tiny that it fits into your hand, as well as the possibility to connect this sucker via HDMI to your TV. For this, Big-N included three display modes, even one that mimics an old CRT tube TV. Furthermore, the NES mini sports two controllers - of which only one is included. You'll have to spend 10 US\$/EUR to buy another one if you're a social player. And you get 30 great games: All three Mario titles, both Zeldas, Mega Man II (which is probably the easiest one), both Castlevanias, Super C (Super Contra)... actually let's list the boring titles, because that list is quite short: Tecmo Bowl and Balloon Fight. Every other title is pure

gaming gold! What you don't get is an AC adaptor. You'll either have to use an USB cable or an USB adaptor to power this baby up. It seems quite cheap that Nintendo would not include anything like that, but did so to further increase their profit margin. Guess they need the cash. But that's about the only complaint about this NES Classic Mini.

### NEXT-GEN IS LAST-GEN\_

Nintendo finally presents a physical retro console, but this comes out of a weakened position of the Japanese videogame giant and the lack of anything else to sell around the Christmas season. This is a bestseller for sure: During a short period of time where you could preorder it on Amazon, it already outsold everything else in the "games" category. After only two days, Amazon dropped the preorder. With the fading sales of the Wii U and the NX being an unclear prospect, this most likely will bring some money and help increase their brand value. (bk)

### **HIGHSCORE**Top-3 NES fun facts:

- 1. The biggest game cart for the NES has one Megabyte.
- 2. Nintendo stopped servicing NES consoles in 2007.
- 3. The first USgames for the NES were often Famicom carts with an builtin adapter.



Now, people often think a good mix should rise and fall, but people are wrong. It should be all rise, baby. Nintendo, however, seems to be pretty oldschool about its game mixing ethics, so they added two titles so boring, they stand out substantially from the rest of the bunch: Balloon Fight and Tecmo Bowl. Must be some kind of joke. They can't really mean it.

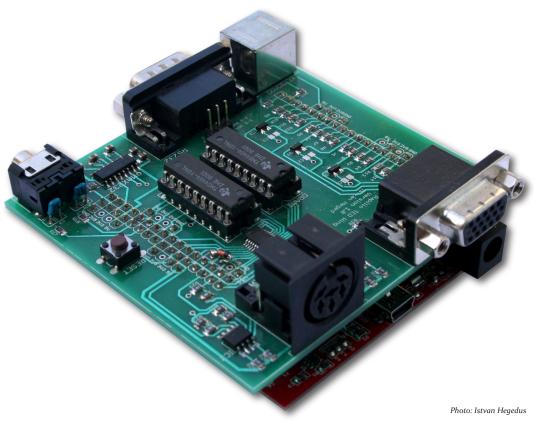


### CHIPDESIGN

YOU DON'T KNOW TED



Istvan Hegedus is 40 years old and lives in Budapest, Hungary. He has a MSC in Information Technology. Currently, he is working for a famous multinational company providing IT services. With FPGATED, he created a replacement for the original TED in the Commodore 264 computer line, using GNU GPL v3 licensing.



### What does the Plus/4 computer mean to you, on a personal level?

In the mid 8os Hungarian government had chosen the Commodore 16 and Plus4 as official school computers and Commodore took the chance to sell its stock in the country. Thus I saw a Commodore 16 with 16 KB RAM and fell in love with it, although I did not own one. From 1985 to 1990 my main computer was a Plus4 and I loved it so much that later when I got my Amiga 500, I have not put it aside. The Plus4 is the reason why I learnt programming and why I became an IT engineer. For me, the Plus4 is the computer which taught me what the internal digital architecture of a

computer looks like, taught me programming machine code language and systematic thinking.

### How come that so many TED chips die in 264 computers?

I don't think that so many TED chips die. Probably earlier revisions of the TED die easily, but I have seen much more dead 8501 CPUs or RAM chips. People tend to think their TED has died when they get a black screen during startup. Especially 8501R01 CPUs with datecode from 84 produce too much heat and die easily. If someone has not turned on his machine for years, I recommend first to install a heat sink on these CPUs and check power supply





voltage. Power supplies of those old machines start to increase power output over the years and that can kill any part of the machine, most probably starting with the RAM chips. Best protection is to modify the power supply and replace the 7805 regulator with a switching regulator like Recom R78 or a step down bucket converter using LM2596 ICs (very cheap and widely available on ebay).

So where did you get the idea to design a TED surrogate?

The idea of FPGATED came when my Plus4 died in 2012 and I was thinking it was the TED chip. In those days I did not have good tools like logic analyzers or oscilloscopes, so I started swapping ICs from a working C16. I realized that it was neither the TED nor the CPU which had died, but the ACIA. And I needed better ways to identify the root

cause. I purchased a logic analyzer and that was the first time that I saw the bus signals of the Plus<sub>4</sub> – and it amazed me so much that I decided: this must be built from an FPGA. I searched the web and realized no one has done it before, so this was really something that I had to do.

How much time did you spend analysing the original TED chip?

I started the project in late 2012 with the preparation of TED wing for my Papilio FPGA and the actual coding at the beginning of 2013. It means I started to collect information at around the same time, at the end of 2012. I've seen the first visible C16 startup screen in autumn 2015, however I could not put full effort in developing it as I have a family and a job. There were certain periods when coding went faster and then I stopped for 1-2 months just to think on a problem's solution or did ex-

Personally, I don't think that so many TED chips die. But people tend to think their TED has died when they get a black screen during startup.

Istvan Hegedus





# CHIPDESIGN

YOU DON'T KNOW TED

**REM** 

Q: Your favorite game on the Plus4?
A: Wizard of Wor.
Q: The Plus4 is better than the C64
because ...
A: ... it has advanced memory management and better color capabilities.

periments on the real hardware. In march 2016 I had the current version ready with just a need for some code cleanup and a place to publish it. During these years I was afraid someone overtakes me and come out with an FPGA implementation before me.

### Did you talk to Bil Herd and if so, could he help you?

I contacted Bil early on when my Plus4 died and he helped me with some hints what could be the problem. Later I asked some TED internals via his c128.org site, however I kept my project in secret because I wanted to be the first to implement it. I know he is a busy person and did not want to bug him every time I had an issue. I have only informed him about its existence this year before VCF East 2016 and he has advised me to release it via Hackaday. As he is the owner of Hackaday, I believe this is the best place to host this project and release it to the public. I know he keeps in touch with the original TED chip designer Dave D'orio and was hoping to get some helping hand on how the internal video buffer was implemented but I had no luck with it.

### How compatible is your FPGA-TED with the original?

I tried several games and demos and was surprised how compatible it is. I know about one incompatibility that I am going to fix in a later release (namely FLI pictures having a badline in each scanline doesn't work yet). However, I hope by releasing the source code I can get some feedback from people on what works and what not. It would be good to build a list of programs having issues. So far I have not found a game which doesn't work on it.

# As I understand, your design currently does not support switching from PAL to NTSC without screen output, thus accelerating to 2.2 MHz?

This is the part which doesn't bother me at all. In a real TED this bit changes the clock divider to produce the CPU clock. PAL uses clock/20 while NTSC uses clock/16 divider. In FPGATED I have chosen a different approach for internal clock generation. The DCM of the FPGA can generate any frequency we need and I realized that if I use for main FPGA clock dotclock\*4 that will give enough resolution to implement

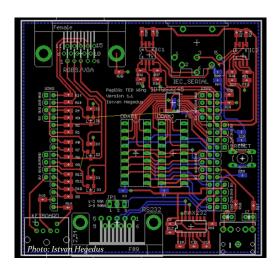


certain delays, skews, rise and fall times that the original chip had while keeping internal frequency below 50MHz. Thus I said to myself if someone needs an NTSC machine, he just configure DCM with different values and use NTSC kernal which sets this bit to NTSC. The result of changing only this bit in FPGATED (while keeping same internal FPGA frequency) will change certain vertical event reference points which NTSC needs however dotclock and CPU speed will not change so there will be no speed gain like in original TED. The solution is simple but I have not implemented it so far. Xilinx Spartan 3E has 4 DCMs of which I used only one. It is simple to program one DCM for PAL frequency and the other for NTSC, while a multiplexer can switch their output to the global clock net based on this bit. I was however reluctant to implement it at this stage because that would require a non standard output pin from TED.v module. Most probably I cannot avoid to implement it and will do it in a later release.

How easy is the replacement of the original in a C16, C116 and Plus/4 with your FPGA solution?

The most difficult part of a replacement is of course the TED core. In addition the current module does not provide Chroma and Luma signals for composite video output which is a major obstacle. One solution is to have a ready-to-use conver-

ter chip like the AD725 and have the composite signals generated by it. The advantage of a solution like that is the high quality of the produced video signal.



Imagine how cool it is to reset your Plus4 via CTRL+ALT+DEL key combinations

Istvan Hegedus

### What will be your next step with the project?

I am going to finalize the project description on Hackaday. When done, I will continue to improve the behavior of the internal video buffer (2x4obyte buffer) to make FLI image display perfect. Other things to finalize are joystick emulation via keyboard, ACIA for Plus4, Plus<sub>4</sub> shell using Papilio Pro, SID card, and memory extension just to mention a few. The possibilities are endless. Imagine how cool it is to reset your Plus4 via CTRL+ALT+DEL key combinations which FPGATED implements already! On the longer run I will work on designing and building a PCB for Plus4 specific use so that the original motherboard can be replaced.



# REPLICASES

### NEW COMMODORE-CASES FOR THE C64



Commodore is back! Yes, once again you might say, so what? Well, this time there is no big corporation behind the name, trying to sell Chinese everyday-electronics, but Individual Computers. The company that brought us the C64reloaded, revived the Competition Pro Joystick

and designed the Turbo Chameleon. They stayed true to Commodore and the Amiga by developing and selling new hardware for those old 8bit and 16bit bit war horses. And this autumn, they will bring us new C64s: New cases, a new C64reloaded mainboard – and hopefully new key-



boards to complete the legendary computer. If that's not the news of the year, I don't know what is! So I've asked Jens Schoenfeld, founder and owner of Individual Computers, about the deal with the owner of the chickenhead logo, what else he's up to, what the new cases will

cost and so on. And I can tell you this much already: You're going to like what you read! If all goes well, we're finally looking forward to Commodore stuff we fanboys certainly can approve. So let's say our "for the masses, not the classes" and dive into the future! (bk)



# REPLICASES

### NEW COMMODORE-CASES FOR THE C64

Jens Schoenfeld, founder and owner of Individual Computers, talks in this interview about the new Commodore cases, the work behind them, their colors and what it means for him to finally produce new C64 components under the Commodore brand name.



Why did you choose to buy the original molds after thousands of cases had been produced last year via a Kickstarter campaign in the USA?

Dallas Moore did a really great job in finding these molds. If he had not identified what they really are, they might have gone to scrap metal and would have been lost forever. His Kickstarter campaign was a huge financial success, but the outcome is of average quality: Many cases are scratched in all the same places (mainly at the front of the top part), colours aren't anywhere near the retro-colours we know, and his attempt of making transparent cases had the expected result: They look ugly in my opinion, because the tooling is just not made to make a transparent case. So far, I've spent a lot of money on modifying the molds to be compatible with today's machines, and for solving problems when pushing out the top case: This

is where the scratches on the front come from, and by modifying the mold, we've eliminated the root cause of the problem. Apart from this mechanical side, we've spent a lot of time and effort in finding the right colours that are "truly retro". During the Kickstarter campaign, white, blue and red were available. That's a very American choice of colours, only slightly related to the original Commodore colours. I have a different feeling for the market, and that's the "retro colours" that a true Commodore enthousiast like me would go for. I haven't invented these colours - it was the designer of the Return Magazine "Tommes" (Thomas Koch, ed.) who came up with the colours we're offering now. My personal favourite is the SX64 colour scheme. It makes the computer look really valuable, but that's probably just me, knowing that the SX64 was a very expensive machine back in the days.

We've spent a lot of time and effort in finding the right colors that are truly retro.

Jens Schoenfeld



# What repairs to the original molds have been necessary before putting them into action?

The main modification job was to make them comptible with today's machines. After this has been completed, we started to look for the right material, and found that even more changes had to be made in order to go away from the standard ABS material. This was a personal wish of mine: ABS is known to cause extreme pollution, so I wanted something that is more in line with environmentally sustainable pro-

days?" When Commodore switched from the old breadbox shape to the C64c case, I would have loved to get such a new case, because it looked to much more like the "bigger brother" C128. However, the original beigebrown colour of the breadbox case, which goes nicely with the dark brown keyboard, has never been available. So this one was a nobrainer: We just had to have that. Black cases are for those who like the look of the 264 series (C16, C116 and Plus/4). The original light gray/beige colour is for those who want to refur-

I've already tried to get a license to the Commodore brand from Tulip before they went bankrupt.

Jens Schoenfeld



duction methods. When making the first sample cases with this new granulate material, we discovered that the entry points of the liquid plastic were too small, so yet another modification of the molds had to be made.

### How did you choose the four colors for the new cases?

As with many business decisions in the retro market, it's a decision of a few people that is "expected" to be the taste of the majority of customers. Since we're talking "retro", the answer to the question "what do people want today" is (sometimes) found by looking at "what would people have wanted back in the bish their C64c. In my opinion (and luckily, also the opinion of Tommes, who did all the work of defining the right colours), a retro case requires retro colours. Commodore has never made red or blue C64 computers, so there is no connection to the past.

# How did you seal the deal with Polabe Holding N.V. for the rights to the Commodore brand name?

I've already tried to get a license to the Commodore brand from Tulip before they went bankrupt - there's even product concepts from that time in a fairly advanced planning stage. However, this stopped when Tulip went bankrupt. I even had contact with the liquidator of Tulip,



# REPLICASES

### NEW COMMODORE-CASES FOR THE C64

The molds underwent some repairs after they arrived from the US in Germany.



but it didn't work out back then. When I contacted Commodore Holdings B.V. last year, I actually reached Polabe, because the brand and domains were already sold by that time. The deal with Polabe was very straight-forward, albeit tedious, because they require more than just throwing a few ideas. They actually verified in multiple meetings that iComp GmbH really has the required infrastructure and quality management that they want to see before a license can be granted.

Can you name the price for the cases yet?

Our initial goal has always been that the cases will be available for under 50,- EUR. We already know that this is not possible for the SX64 cases, but at this point, it looks like the initially unexpected expenses for tooling modifications can be paid with the high demand that we're seeing. I currently believe that a sales price of 49,95 EUR per single-colour case is possible. That's including the German VAT of 19%, but excluding shipping cost.

Furthermore, you announced a new revision of the C64reloaded mainboard in two versions. Can you tell us more about the differences?

The technical details aren't final, so please understand that I won't go into too much detail right now. We don't even have names for the two versions yet, so please pardon that it sounds a bit cryptic at this early stage. It's going to be two versions for two groups of people: One is for restoration purposes, so for those who have been using the C64 all

I currently believe that a sales price of 49,95 EUR per single-colour case is possible. Jens Schoenfeld these years, who want the machine "as original as possible", and where every enhancement must be selectable with a switch or jumper. This is \*very\* similar to the initial C64 Reloaded concept. The second board is addressing people who want more enhancements, more connectivity to today's peripherals, but still with the original ideas that the C64 was introduced with back in 1982. I guess the best example is that the C64 was designed to use a standard TV set as a monitor back then - this will also be true for the second C64 Reloaded version: It will use a standard TV set as a monitor, so the computer can be put in the living room.

# Will the cases and mainboards be only available in limited quantities?

Of course there are limits, but we'll do our best that no customer will notice them. We've learned a lot from last year's experience. The website broke down on the day when the C64 Reloaded board was available for the first time, and this continued throughout the availability of these boards. Since there were limiting factors in the design of that board (especially memory chips), it was impossible to just go ahead and make a new production run. Another thing we didn't take into account was the amount of work to pack all the products for shipping. All the manpower that we usually have in the workshop for quality control, packing of retail boxes and handling returns, was all of a sudden tied up for days processing the orders for C64 Reloaded boards. Although we've optimized this procedure quite a bit, we also have a partner now who has an infrastructure for shipping thousands of parcels per day, as opposed to "hundreds" that we can ship per week from our location. With no obvious limiting factors for production quantity and



Looking good: These four colors will be available for the new C64 cases. Thomas Koch is responsible for the color chosing – and also for all these nice rendered photos.



# REPLICASES

### NEW COMMODORE-CASES FOR THE C64

a vastly improved shipping capacity, we believe that we're all set for the next demonstration round of how big (and growing!) the retro community really is.

With new computer cases and mainboards up for sale soon, the only thing missing is a new keyboard for completely new C64s. Do you have any plans for this? Absolutely! While many people see the original C64 keyboard as a kind of cult (we can see that from the good sales of our Keyrah product), I personally think that the C64 keyboard is far from what we know about typing ergonomics today. I

I've been running around with
that big smile on my
face for the past days
since the agreement
was signed.
Jens Schoenfeld



have already done quite some research about the topic, and went through a steep learning curve.

Once again, I don't want to go into too much technical detail here, because there may be a huge gap between what I would like to build today, and what's possible for an affordable price.

# What does it mean to you emotionally to produce new C64 products under the Commodore brand?

You're asking exactly the right question: The Commodore brand carries lots of emotions. For me, it started when I was ten years old, and already had access to a Sinclair ZX81 computer. When I saw a C64 for the first time at a friend's place, I was flashed by its colours, sound and the speed that it executed our little Basic programs. The name has been carved in my brain ever since, and it's been connected with cutting edge technology throughout my childhood. The memories of the days when the C64 was "the computer to have" include regular meetings with friends who came over to play a few games, re-write a demo-effect or sometimes even do some homework on the C64. One of them even called me after over 25 years, because he has read the news item. These emotional memories are still very vivid today. I've been running around with that big smile on my face for the past days since the agreement was signed.

# SCENE WORLD

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# GAMESCOM

### RETRO BECOMES MAINSTREAM

30 years of Factor5:
Graphician Andy
Escher (right) could not
resist to bring along his
collage of Factor5 game
covers he was involved
in to let the former
team sign them. Chris
Huelsbeck (left) was celebrating his 30th year
in the gaming business
at Gamescom.



Gamescom is the largest videogame show worldwide: 345.000 gaming enthusiasts were registered in five days. The most interesting thing about this is that the retro booths get more and more space each year: 50 clubs, projects, musicians, magazines, publishers and collectors presented new and old stuff for vintage computers on 1.600 sqaure meters! And the audiences interest in these machines is also growing every year.

### ANNIVERSARIES EVERYWHERE

It seems like there is not a single year without a big anniversary of some kind. This year, it was time to celebrate 25 years of Segas Game Gear, 30 years of gaming music by Chris Huelsbeck, 30 years of Factor5 and 40 years of Apple. With so much retro spirit flying around, it was no wonder that even some large companies could not resist to cele-

brate the good old days. Nintendo for example had installed some NES and cathode ray tubes (doesn't it sound like something out of a hospital if you don't abbreviate it, Ed.). And with their upcoming new NES Classic Mini, they had every reason to make gamers feel the joy of Super Mario 3 and Kirby's Dreamland in all their 8bit glory once again. The four seats in front of the two NES consoles were never empty. And with not much more to show of this year (the upcoming Zelda game was hidden for exclusive guests in a black box next to the booth) besides lots of indie games, people lined up to play some good old Mario.

### OLD IS THE NEW NEW

And while Nintendo looked back, basking in the glory of their past, the guys at the large retro booth did the opposite: Eight new games were presented for old systems - and six of them were for 8bit consoles or computers: Caren and the tangled Tentacles (Adventure), Tiger Claw (Action Adventure), LuftrauserZ (Arcade Action) and Sam's Journey (Jump 'n' Run) all for the Commodore C64. The rest of the bunch belonged to Atari: Assembloids (Puzzle game) for the VCS and Dimo's Quest for the Atari 800 showed people that there is still a lot to enjoy on old gaming hardware. And besides that, there were more news: A C64 hardware compendium is sche-



duled for release this fall. And Cinemare's Sven Voessing is seeking a publisher for his Adventure adaption of the German retro novel "Extra Life". So much to see, so much to play – for retroists, gamescom might have become more interesting than it is for hardcore gamers nowadays. So hooray to us! (bk)



Nintendo celebrated themselves: The upcoming NES Classic Mini has to compensate an otherwise dreadful Christmas season for the Japanese games veteran. So they presented some gaming stations to enjoy the glory of their 8bit past.

SHOTGUN (C64)



Christian Gleinser, born in 1984, got his first C64 from his uncle. When it broke down, he bought a new one in 1994 – and still loves it.



When it comes to party games, nothing offers more fun than playing with four players simultanously. That were the thoughts of Christian Gleinser, who brought a C64 to an Atari party. There he experienced some games utilizing the Multijoy8 adapter, which inspired him to program something for the Commodore. Because there are not that many 4-player-games around, he thought it was time to make one. "I made a prototype of Shotgun in Python which was very close to the C64 version", Christian recalls. It took him one week to program it, and another three weeks to port it to the C64.

SHOOT OR DIE\_

So what is it, exactly? Shotgun places at least two players in a labyrinth that reminds one of Wizard of Wor, but with thick stone walls. You grab the nearest gun, lying around in the maze somewhere, and try to be the one who shoots first. And

that's it. Kill or be killed. Despite the rather dull graphics, the game offers some decent replay value, especially at retrogaming parties, and especially with four players.

### FREE TO PLAY\_

The game can be downloaded for free via csdb.dk, but there is also a boxed version. This can be bought for about 17 EUR (excl. shipping costs). For this, you'll receive a flip cover, the game on a 5.25" disk, a printed manual and three extras, which Christian calls "surprises" without telling any details about them. Christian is already working on a sequel which will contain a level editor and some more features. "I won't tell right now what it will be, but in any case all the features can be turned off. This way, you can enjoy the gameplay of the first game. But I'll have to build a prototype first", he says. Well, we're certainly looking forward to it. (bk)



# GAME ON

### BARNSLEY BADGER (C64)

There are a lot of reasons not to like the typical hi-res games for the C64: Boring backgrounds, sparsely animated sprites and colors from hell may work on a Sinclair Spectrum, but gamers are used to smoother graphics on the C64. Well, with Barnsley Badger we get a platform game which utilizes the hi-res mode for some nice graphic details, shows nice animated backgrounds as well as oponents and delivers a precise control. Not much to dislike there. So is it worth giving it a try? Yes, it is!





# These look similar for a reason: Barnsley Badger could be the sequel to Monty on the Run.



### BADGER ON THE RUN

The first thing that comes to mind when you look at Barnsley Badger ist Monty on the Run. Starting with the title picture, you'll feel something pretty familiar. Even the main character looks and moves not too different from Monty. The baddies would also fit well into Micro Projects' Classic from 1985. So there is no question where Trevor Storey and Georg Rottensteiner got their inspiration from. Musician Andrew Fisher didn't try to create a tune nearly as catchy as the one by Rob Hubbard, which is considered to be a true SID classic. His soundtrack is more jolly and fun, but gets repetetive rather fast.

Originally, Barnsley Badger has been a perk for Chris Wilkins' Kickstarter Campaign for his book "The story of the Commodore 64 in pixels". Now it's available to everyone via Psytronik. And it's certainly one of the best looking hi-res games on the 64. (*bk*)



# 

EYE OF THE GODS (C64)





It looks like an ideal combination of Prince of Persia and Metroid.
But EOTG is quite diffrent from both.

When the future is looking pretty bleak, mankind turns to the past. You know, everything was better in the old days. When there were gods, soldiers in sandals and you could die of nearly any illness you got. Ah, those glory days!

In Eye of the Gods, mankind is desperate for solutions to their ecological crisis and for their energy problem. So they send a strong man who looks like he might have been inspired by Rise of the Robots in a morphing power-suit into some ancient ruins to dig out the legendary Eye of the Gods, an artifact so powerful, it could solve the problems of the whole civilization. Or so they say. It might as well kill everybody. And so your journey to the catacombs of the past begin.

### SLOW START, FAST ON TRACK

At first glance, EOTG looks like a Metroid of some sort. But you quickly recognize that it lacks the action of that. That's a pity, but the great (but not at all ancient sounding) soundtrack by Richard Bayliss compensates for this. The controls are okay, but they feel a bit clumsy at times, especially when jumping at some platforms – oh the humanity! Some of them really do suck. But most of the time, you'll get along with it. Gameplaywise, the idea that you have to collect different items from different ancient gods so you can progress in the game is nicely done and well implemented. A solid game all in all that is certainly worth playing for some time... but maybe not too long. (bk)



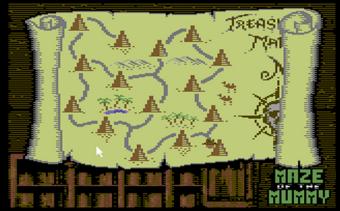
# 



MAZE OF THE MUMMY (C64)







On his quest for fame and wealth by exploiting some ancient artifacts of Egypt, the player takes control of a archeologist of doubtful splendor. He's certainly not there to preserve the treasures of civilization and put them in a museum – he wants to sell them and buy nice things for the money. But enough of the story: Maze of the Mummy is a puzzle game, set to play in several pyramids. The player has to find the treasure and escape the rooms without being touched by the mummy. This looks easy enough in the screenshots, but it's one of those round based games: After the player has moved one field, the mummy will move two. So it's basically about luring the bandaged warden into some obstacles where he won't be able to do any harm while you get

the hell outta there. The graphics are pretty decent, Federico Sesler did a great job there. And the music adds nicely to the overall atmosphere thanks to the work of Sascha Nagie. The game features 225 levels, so if you like puzzle games, you will certainly enjoy Maze of the Mummy – and spend some time with it. Nice: The latest version of the game automatically saves the progress on disk as you play. And this will come in handy, because what looks like a generous amount of credits (99) at first is bitterly needed! You'll lose a lot of them. Otherwise: The quicker you'll solve the puzzles, the higher scores you get. Anyone played it through already? (bk)

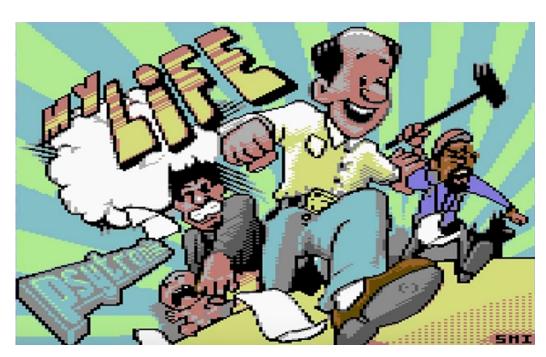
Throw in some Quatermain, Joe Gunn, Mummies, Scorpions and the mandatory treasures et voila: That's Maze of the Mummy. It's surprisingly fun to get your brain tested by a C64 game.



# GAMEON

MY LIFE (C64)

My Life plays just like Mikie, which was published in 1985 by Konami. It delivers a huge improvement with regard to sound and graphics. But if you think My Life might be easier than Mikie, you're mistaken. It's tough, but it's a whole lotta fun!

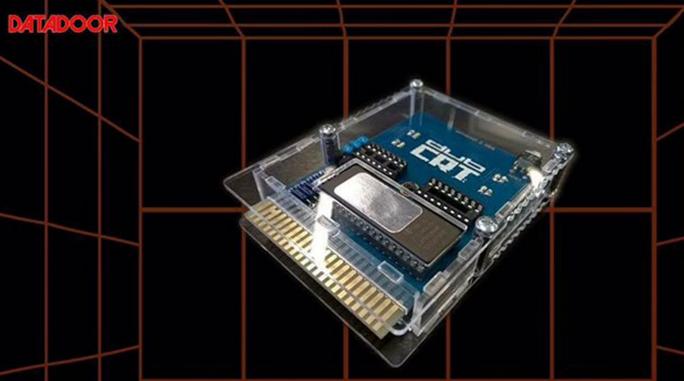


If you played Mikie back in the day, you'll instantly know what to do in My Life. And you'll love it! Trevor Storey and Achim Volkers really did a great job here, as My Life might be one of the best games of 2016! The player takes control of Eugene, who was being adored during his highschool heydays for his coolness. But now he's a bald, stressed out, chubby grown-up. And the moral of the story is: You can't trust the system. So the player must help Eugene get through the workdays, collecting different items and avoid dogs, babies, security officers and other develish creatures to finally get to his temporary Nirvana: the weekend. Then, finally, he can relax and get some sleep. The graphics are crisp, the controls are precise and the music by Saul Cross is awesome. Even if you've never played Mikie back in the day: Grab your joystick and help Eugene. You won't regret it! (bk)









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# **DATADOOR**

DUBCRT will be released in late 2016 on DataDoor – a music / occasional Commodore 64 software label initially as a hardware cartridge for the C64 (with a SID 8580 sound chip, PAL only) with a software version bundled (or available separately) that can run on modern emulators such as VICE for people who do not possess the authentic antique hardware.



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