

Commodore Free

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Issue 35

December 2009

DEDICATED TO THE MEMORY OF LORD RONIN R.I.P



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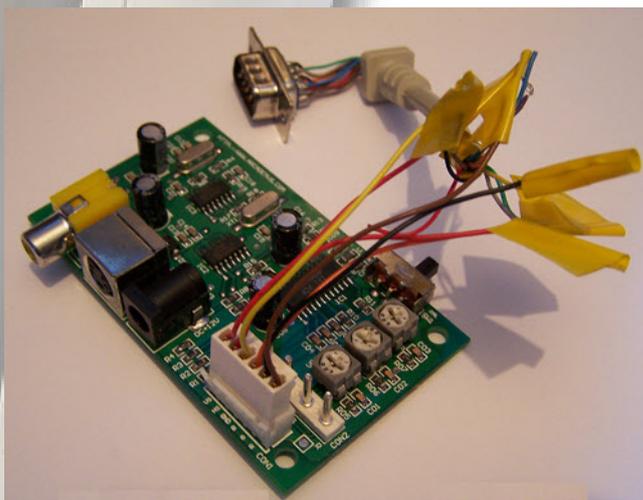
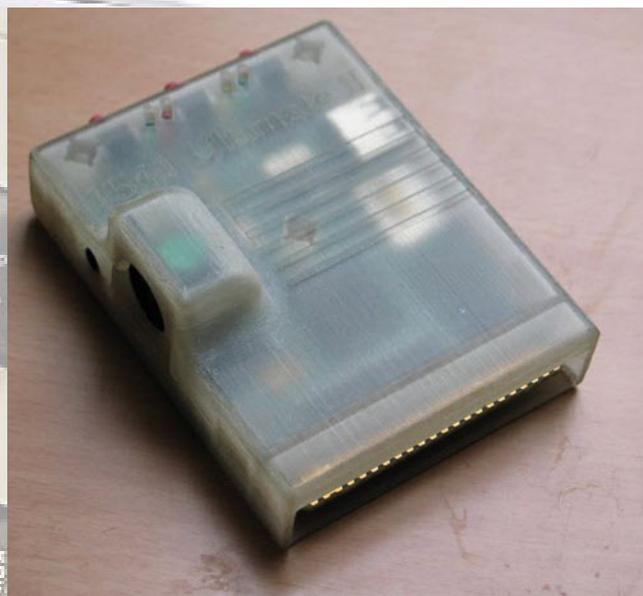
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Editorial

Hello!

This month I am going to start a new challenge it will be called "commodore Scene FPS or FPPS (first person shooter, First person perspective shooter)" the idea is to create a game in the same style of a first person shoot-em up with ammo and guns health points and keys to collect, as well as switches to open up secret rooms. Rather than call this "Doom" which puts a lot of programmers off, I left it as open as I could while still creating a FPS (first person shootout) style of environment.

I will as time and interest permits; be setting up a website to show the donations and interested parties, both programmers looking to collaborate and users willing to purchase the items (I wont put up names just the numbers) although I will put things like

Programmer seeks collaborator for sound
Artist seeks programmer
Etc

Or use the Commodore Computer club forum to post messages
www.commodorecomputerclub.co.uk

All email addresses and contact names given to myself, will be hidden until both parties are prepared to talk; then I will send the relevant emails to people, this way I feel is the safest. I will also create an entry in the <http://www.commodorecomputerclub.co.uk> website forum myself to generate interest and start off the ideas.

I really must start changing the dates on the magazine it seems odd the magazine comes out at the end of the month of November and is called the November issue really I suppose it should be the December issue or should it? I suppose as long as the next issue is a numerical increment of the last issue so 34 becomes 35 I don't suppose it really matters about the month. Time is catching me up and of course now with more studies to do it's a never ending battle of time, Computers, Family, revision and making some money to pay the pills.

Commodore Free managed to catch up with Gideon Zvejtzter the creator of the 1541 ultimate (is this the best piece of hardware ever) to ask about the next version and his plans for more follow ups, and yes dear reader its all here in this issue.

Commodore Scene's Allan has been working hard and it seems has made a breakthrough with his VGA project. Allan has managed to find a way to connect his Commodore to more hardware for Visual feed back (erm that's a monitor or screen for none technical people) Allan as you may remember paid large sums of his own money; to try and get a device that would allow him and other users to connect Commodore computers to VGA monitors, he now has various cables he can make read more about it in this very magazine.

Lord Ronin finds that Computers really rant that Evil after all and that some are indeed very friendly, the commodore 64 for instance when powered on gives the warmest greeting of READY ! and if your Computers ready then what's to stop you GOING and doing some work?

In this months news TRSI Misery III C64 DTV a demo featuring a very DOOM like environment very colourful; but sadly only for the DTV will it be workable on a Commodore 64 (I doubt it) the DTV has a faster processor and more enhanced Graphics than the basic Commodore 64 I am not that technical but I believe the processor is significantly faster and the graphics can have a mode that displays 256 colours on screen.

OPERATIONS

For the curious and not so bothered I am still recovering from a 7 hour opera-

tion on my back, this was to relive pain in my legs the nerves (sciatica). The nerves have been trapped and squashed flat for over 6 years. That's 6 years of pain and misery. I finally gave in to an operation. However the surgeon wasn't prepared for what had happened though; one of my discs was completely flattened and useless, so what started as a routine 1 hour operation became a 7 hour complication. The disc was removed and various bones had to be ground away to allow the nerves space and help them settle down (they were inflamed and swollen after being crushed for so long) the first 2 weeks after the operation saw me walking a few paces to a mile then 2 miles, it's a slow process but gradually I am recovering, I don't know yet if the operation was a success because of all he swelling; but I do have a nice 4" scar on my back. I would give anyone reading this advice

LIFTING ADVICE

- Always lift with the knees and a straight back
- Never turn your waist with a heavy load move with the feet
- Never lean over and object to pick something up
- Keep objects close to the body
- If its too heavy get a friend to help you
- Keep your back straight when sitting
- Never sit for more than 30 minutes without a break

Most of this advice is now too late for me, I have been lifting heavy items and twisting for the past 10 years carrying printers and servers around my work. Now when the damage is done do I receive a "handling and lifting course" just to rub salt into an open wound.

THE BIRDS

The strange thing is, I used to hate the birds singing in the morning, especially when it was at 4am waking me up, now I look forward to hearing them! While hospitalised I was looking out the window and a nurse came by my side, she said "isn't it horrid raining and cold day" I said well to me it looks wonderful! and I wish I was outside. She looked at me as if I was mad, but I was just glad to be there able to look outside. Maybe it's all the medication

I was quoted something in a forum about bad backs; here it is and if you know what it means (as I do) I think you will welcome its content

"The only thing that stays the same is the fact that everything is changing"

For this month I will leave you with that Quote, I fully knew what he meant; if you do then you are one of the luck ones. And I presume you too look forward to the birds waking you up everyday or the rain bashing down on the roof keeping you awake.

Now its time for me to put on my white Geek's coat and pencils sharpened to a point and all the same length, get my black, blue and red pens and look forward to getting back to work.

To the Spectrum readers still emailing me about the sound comparisons, yes OK I am sorry, but this was a memory of my childhood, I know the spectrum can replay digital sounds and 8 voice music and do some software synthesis. I fully thank you for your comments; can we draw the line now and move on. Lets just say that in a Commodore Magazine I personally prefer the SID sound. Thanks

Nigel

www.commodorefree.com



NEWS

LEGACY ATARI STYLE JOYSTICK

<http://www.legacyengineer.com>

Great news! Legacy Engineering is fully stocked for the Holiday Season with hundreds of brand new, ready to ship USB Atari-Styled joystick controllers. Also our special edition Atari 800 series and Commodore 64 series controllers - these are limited editions and are selling out quickly.

Do you have an older original Atari CX-40 joystick and would like a simple, no-solder solution to upgrading it to USB, check out our CX-40 Retrofit kit.

Just stop by the storefront and check out the great products available:

<http://www.legacyengineer.com/storefront>

Regards,
Legacy Sales Team



JIM BRAIN JIFFY DOS LICENSE

From Jim Brain
Sent: 12 November 2009 04:25
Subject] JiffyDOS Forensics

Please feel free to repost on other forums, I'm trying to catch as many people as possible:

As many of you are probably aware, I acquired a license to sell JiffyDOS earlier this year and am now ramping up sales.

To that end, I am trying to reconstruct the exact product offerings that CMD offered. This means verifying images, and determining what original ROM images CMD supplied with each overlay.

Thus, if anyone can use a DOS ROM reading utility (or EPROM reader) and can send me a copy of the both halves of the JDOS ROM, I'm still struggling with the following systems.

1571: I have three versions here, but cannot determine which is correct.

The MD5s are: 41c6cc528e9515ffd0ed9b180f8467c0, 6b4d46b28b7414d5a82cea4972894600, and d649fa6b0108c20ce213f5496d5980a5.

What is the version number on the ROM sticker?)

1571D: I have a 1571D JiffyDOS ROM here, but it looks to be a 1571DCR (the cost reduced version). Notes indicate a non-CR 1571D used a normal 1571 JD ROM overlay, but I'd like to verify that.

MSD SD1/SD2: I am trying to determine the version of MSD code in the lower half of the U5 JiffyDOS for SD2. The MD5 is 1a2efac3b96decf83fba27bc17c5a8a7. I checked against my SD2-2.3 version here, but they are different. Also, is the SD1 JiffyDOS the same as SD2 version?

Indus GT: I do not have an original JDOS for this, so I need a dump to compare.

1541C: Again, I do not own an original JDOS for this machine.

I understand there is a Swedish version of JiffyDOS for the C128 and C128D (and possibly for the C64) [Update: I have been sent copies of the Swedish JiffyDOS ROMs, but I'd still be interested in what version of KERNAL was included as the "original" KERNAL for these units.]

German/Finnish JiffyDOS variants?

Any help folks can provide would be much appreciated. In fact, if you have an original JDOS, no matter the type and can dump it for me (both the original and the JD portions), that'd be great. Anything you can tell me about the setup - sticker legend (version number, etc.), machine variant (128, 128D, 128DCR, etc.), video standard (PAL/NTSC), and whether it had a switch on the ROM - is good information to share.

To clarify, I know there are bootleg archives available, but I can't consider them authoritative. In addition, the archives would not tell me what CMD placed in the non-JD half of the EPROM on units with switches. I would prefer to check against genuine copies of the overlays if at all possible.

Jim!
Home: <http://www.jbrain.com>

JiffyDOS™

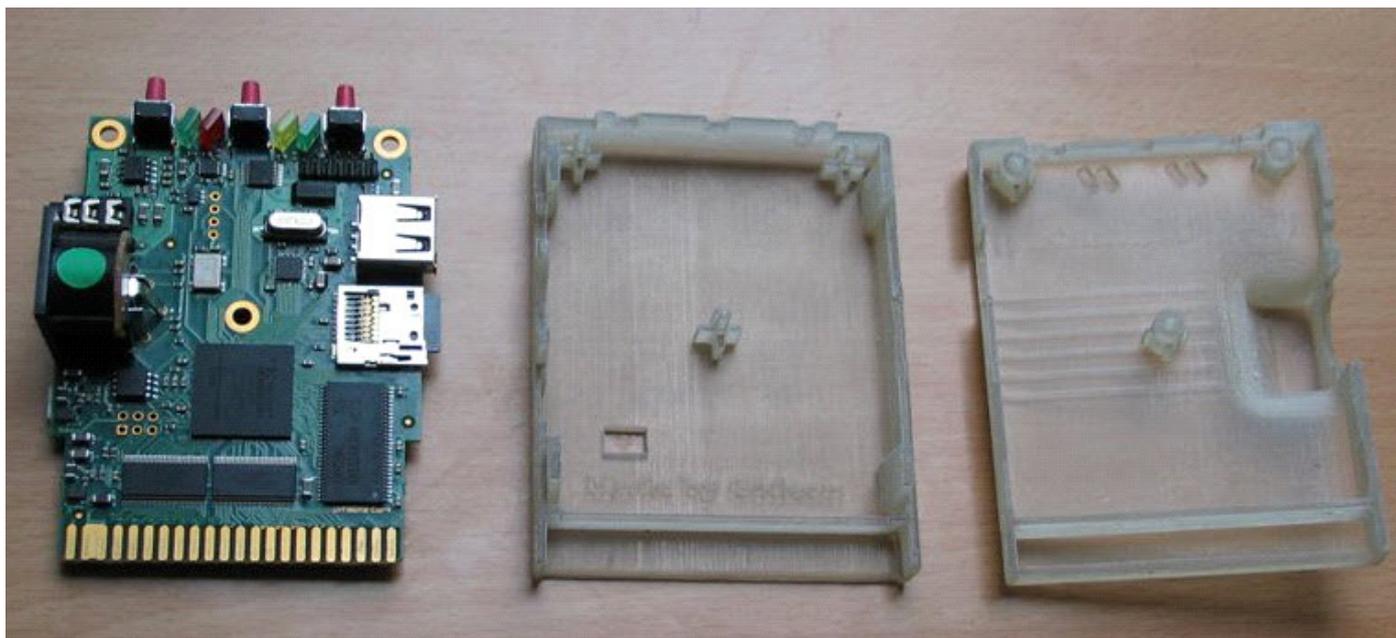
SEUK UPDATED

<http://www.seuckvault.co.uk/>

Thanks to Mason of C64Heaven, we have been able to track down some more SEUCK titles. Mason is cataloguing and preserving C64 games and in particular cracked/trainers versions. So these games come with trainers allowing the player(s) to have infinite lives or no collisions. Visit the C64Heaven site for more information, and see if you can help him track down some of his missing titles too. The address is:
<http://www.c64heaven.com/>



1541 MARK II PROGRESS UPDATE



<http://www.1541ultimate.net>

1541U-II Progress
Hello everyone!

It is about time to release some news about the 1541U-II. I think some of you must be really curious about the extra features and possibilities that the 1541U-II give, and about the progress on production and firmware. To start off with the 1541U-II features, I can tell you that it differs from the 'standard' 1541U Plus/Ethernet that:

- the board itself is about 30% smaller than the 1541U;
- it has a MicroSD connector, instead of a full-size SD;
- it has a real-time-clock function, for correct file time and date;
- it has a larger FPGA, which enables the implementation of more features;
- it has a USB Host port, which can be used to connect USB-sticks;
- it is targeted to have a suitable case for the device.

Some of you have written in the forums, that the MicroSD connector is not much of an improvement. But the rationale behind going to MicroSD is mainly the available space on the board is less, and that with the addition of a USB-A port, the average user will use the USB-stick rather than the SD-card. So the MicroSD-card does not need to be removed from the cartridge very often. However, because at the moment that I announced the 1541U-II, the USB port was not yet tested, I could not reveal this feature as I did not want to make promises that I can't keep. The USB turns out to be quite a bit of work to get it to work, but I can now announce that I managed to implement enough of a host-controller function to be able to talk to USB devices and send the most basic commands to access a mass-storage device. I am quite close to have implemented the 'read-block' and 'write-block' functions, which is the interface level that the file system module uses. In other words, I expect to be able to access the (FAT) file-system on the USB stick quite soon!

How will it work for the user? My objective is to have one 'directory' level above the current root of the SD-card, where you can select which partition you want to browse. There the USB flash drive becomes visible, as well as the MicroSD card, if present.

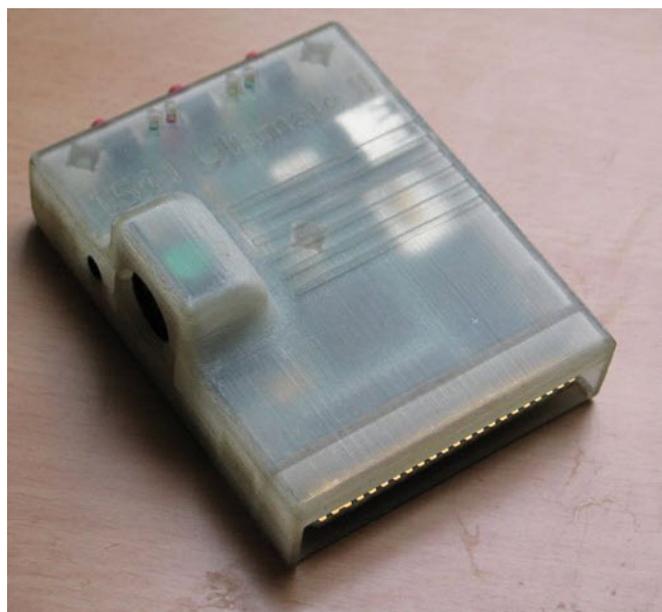
Why has the Ethernet function disappeared? The rationale behind this, is also space. However, another consideration is the shitty interface of the CS8900A chip. This chip is slow and creates quite a challenge to get the timing right on the C64 slot. It works now, but there are quite some tricks to make it work, and it will probably only work in 95% of the cases. Because I want the 1541U to be a quality product, I decided that it would be better to emulate the CS8900A chip in the future inside the FPGA, and transfer the data over USB, by means of an external USB-to-Ethernet converter. This will not only be cheaper, but also more reliable. However, everyone knows that implementation of these things take time, so I am not offering this functionality from the start.

Production status: All components are on stock at the assembly company for 100 boards. Once the PCB is ready, the assembly company will build the boards for me. Hopefully, the case will be done by the time that the boards come, too. The design of the case has been finalized, but to find a company that can make

a mould for this, is quite another issue. I have offers from different companies that differ in price by a factor of 5! It will be a huge investment for me, and therefore I need time to select the right company for making this special case. Therefore, I don't expect the cases before Christmas. :- (For this very reason, I have not yet opened "payment season", because I do not feel good when people pay and have to wait long before I can ship. It gives me a lot of stress.

Some time ago, I already had a prototype made by a company that uses a 3D printer, based on some kind of ink-jet system. Below you can see the result, including the new 1541U-II board on the left. Note, that the final case will *not* be transparent. It will be either black or cream
I hope you will be enthusiastic about the new developments. I would love to hear about your thoughts and ideas, but beware that I can't answer all E-mails. At this moment, I only have 3 days every 2 weeks that I can use to spend time on the 1541U project.

Regards,
Gideon
<http://www.1541ultimate.net/content/index.php>



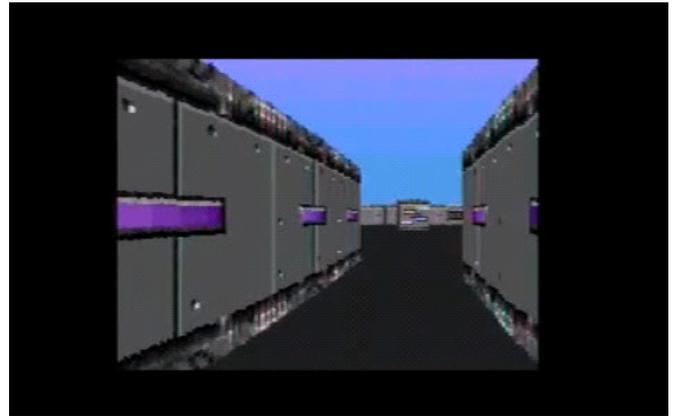
TRSI Misery III C64 DTV

A new demo for the DTV has been released
 watch it on You tube <http://www.youtube.com/watch?v=VjAZtoeU8Zo>
 or download it from <http://noname.c64.org/csdb/release/?id=83196>

Interestingly about 1/2 way through there is a DOOM style maze very detailed and fast although not full screen and it doesn't have any monsters. However its also worth listening to the music Very nice although I think its an acquired style, sadly I keep trying to sing it, and if you listened to it you



would understand how difficult it is to sing/hum/whistle



geoGlyph released

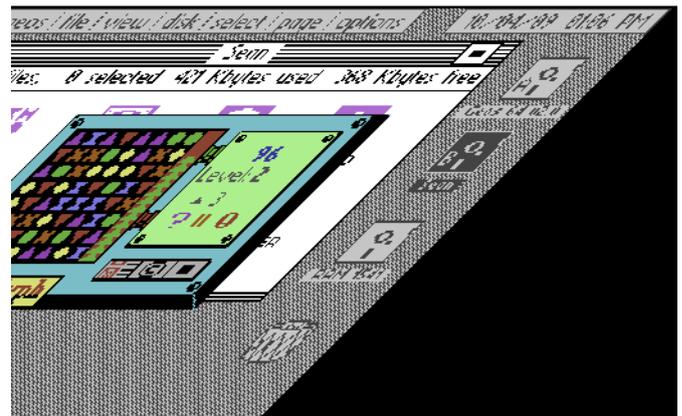
<http://www.huxter.org/geoglyph>

Sean Huxter has released geoGlyph, match-three-symbols game for GEOS (64 and 128) that runs as a Desk Accessory in 40-column colour mode. It is a feature-rich game, including a timed and a No-Pressure game with a number of options allowing you to customize your play experience. It will save games and high score on quitting.
 To download, go to <http://www.huxter.org/geoglyph>

geoGlyph is free to distribute. The .d64 disk image also contains other games Sean wrote back in the late 80s and early 90s including geoMimic, HAZARD and geoComix.

geoGlyph is a GEOS Desk Accessory (that runs in 40 column mode). It is a game of pattern matching. The aim is to form colour matches at least 3 long either horizontally or vertically by swapping any two adjacent Glyphs. The matched Glyphs are removed, and gravity takes effect, dropping Glyphs into the spaces left open by the removed match. After the drop, if new matches are formed, the board cascades until no new matches form. Then it's back to you to find another match.

If no match is possible, (i.e.: no Glyph swaps can produce a match) then the game ends



Free SID chips with HARD SID

<http://www.hardsid.com/order.php>

4 SID Chips for FREE!
 If you always wanted a fully loaded HardSID 4U Studio Edition with all accessories, this is the best time to get it:

- HardSID 4U Studio Edition +
- * 4 SID Chips for FREE (-60 EUR)
- * Power Supply for FREE (-15 EUR)
- * USB Cable for FREE (-10 EUR)
- * Shipping for FREE (-15 EUR)
- = 399 EUR (YOU SAVE 100 EUR!)

You can choose from these Class I. SID configurations:
 - One 6581 (the old SID) + One 6582 + Two 8580s
 or
 - Four 6582s
 or
 - Four 8580s

The old SID (6581) is a must have for listening the good old C64 tunes. The 6582/8580 SIDs (the newer models) are the best for studio usage.

* The special offer is only available until the SID stock is exhausted!

It took years to collect the current Class I. SID stock and it will be sold out fast, so hurry up!

Choose your favourite SID configuration and order your HardSID 4U Studio Edition now:

<http://www.hardsid.com/order.php>



XU1541 available

<http://www.commodore16.com/index.php/component/content/article/70-upgrades-a-mods/335-xu1541.html>

From today you now can purchase the XU1541 adapter from the Commodore 16 shop. The XU1541 was originally developed by Till Harbaum and the project was abandoned. But its now still well alive, thanks to our resident engineer Jurek.

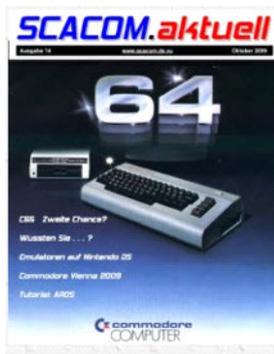
This adapter is the modern version of the parallel port X1541 cable but now with USB capabilities. Allowing modern PC's & laptops to use the Commodore range of disk drives such as the 1541 etc..It comes in two packages both including world wide postage, the first being with a USB and serial cable at £34.00, and second package without the cables at £29.00. Both come with a custom built Opencbm and GUI.

So if you want to purchase one of these amazing adapter's just head over to our shop

http://www.commodore16.com/shop/c16_hardware_1.html

**German Scacom #14 released**

<http://www.scacom-aktuell.de/vu/>



Scacom #14 is released
A German Commodore PDF magazine the following articles:
News, Pattex PowerKnete, Emulatoren für Nintendo DS, Giana Sisters am DS, C65 - zweite Chance, Pure CBM, Commodore Vienna 2009, Traum: Die Zukunft von Commodore, Commodores letzter Chipsatz, Tutorial: AROS, Commodore C64 Games System, Commodore VC20, Jungle Hunt,, Cover for 5,25" Disks, Game Show, Tops und Flops

Project Timberwolf

<http://www.amigabounty.net/?function=viewproject&projectid=44>

Timberwolf is the project name of the AmigaOS port of the Firefox web browser. It's features include: tabbed browsing, support for HTML 5, ECMAScript 3.1, and CSS 3, extensibility through add-ons, and a lot more. In short, Firefox is the most complete open source browser to date. Timberwolf is a spare-time project, not funded by anybody

SIDbrowser Update 2.6

<http://sbwv.mathesoft.de>

SIDBrowser 2.6

After 3 Years of silence SIDBrowser published in a new release. you will be able to install it on a mobile drives like USB-Flashram. together with the huge HVSC collection - all on one medium.

All needed files are included. Index for fast search was created for actual HVSC v51.
you will also be able to record the SIDs to WAV and encode with LAME to MP3. It is a work version.

Get the Installer from <http://www.sidbrowser.com>

Get work versions from <http://sbwv.mathesoft.de>

**Container - Plus/4 -**

<http://plus4world.powweb.com/software/Container>

Chronos made a conversion of the Commodore 64 game Container for the Commodore Plus/4. Container is a C64 entry for the Minigame Compo edition 2009. Originally coded by Charles Grey.

Container is smart and cute action game in just 1 Kilobyte

Title: Container

Category: Game/Action

Release Date: 2009-09-27

Language: English

Size: 16K

Machine: PAL Only

Code Type: Machine code

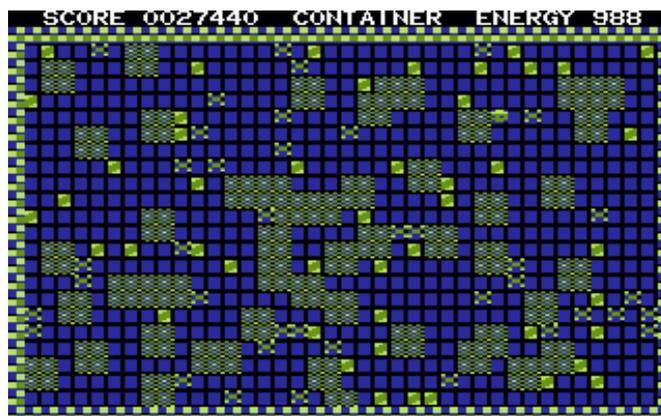
Distribution: Freeware

Released by: Absence And Wilds (ACW)

Converted by: T., Tamás (Chronos)

Additional code by: B., Attila (Csio)

Notes: C16/Plus4 version of Charles Grey's entry at Minigame Compo 2009.



NATAMIGA board released

<http://www.natami.net/index.htm>

The NatAmi Project

This hardware project is dedicated to the still innovative system architecture of the Commodore AMIGA computer.

The basic concept is straight: Get the original Amiga design up-to-date.

The NatAmi approach is to rebuild the original system

- without emulation
- without abstraction layers
- without legacy drawbacks

This means the system needs to be built from scratch. It will not use standard PC components when their adaption or implementation causes workarounds that limit performance, functionality or usability. The priority is to build a very simple system design which is predictive, easy to use and fast responding like the Amiga was/is. The original creators put great effort and thought into how to keep things simple. The NatAmi is intended to keep this guideline as the foundation of its system.

This concept is the project name: Native Amiga

The NatAmi does not revive or copy an A500/A4000. It will be a succeeding Amiga model not done by emulation - it is done by reconstruction. Up-to-date and good performing components are used to retain the efficiency. It will rely on the original philosophy - but remove old limitations.

The NatAmi is an AMIGA compatible machine, allowing you to natively run original Commodore Amiga software

The first NatAmi board is assembled. At least all SMD components are. The pin-in-hole connectors will follow as soon they are needed. The first power on worked well. It can be switched on and off by its power pushbutton (lower left). All internal voltages are at their intended level.

More about the project in this Issue of Commodore Free

**Vandalism News #51 released**

<http://noname.c64.org/csdb/release/?id=82666>

Onslaught & Wrath Designs have released issue 51 of VANDALISM NEWS

Contains information on the following

- LCP 2009 report and results
- Maximum Overdose 8 report
- St LCP 2008 report and results

**Minimig Firmware update**

<http://www.minimig.net/viewtopic.php?f=5&t=183>

I have upgrade to the new firmware but no go!!!

- 1.install frimware.upg all okey
- 2.reset
- 3.copy minimig.bin to SD card
- 4.Reset System hangs on bootscreen !!

@Yacube have you set the Power reduction option?

Because I have some similar trouble before with a firmware from boing4000

---- quote ----

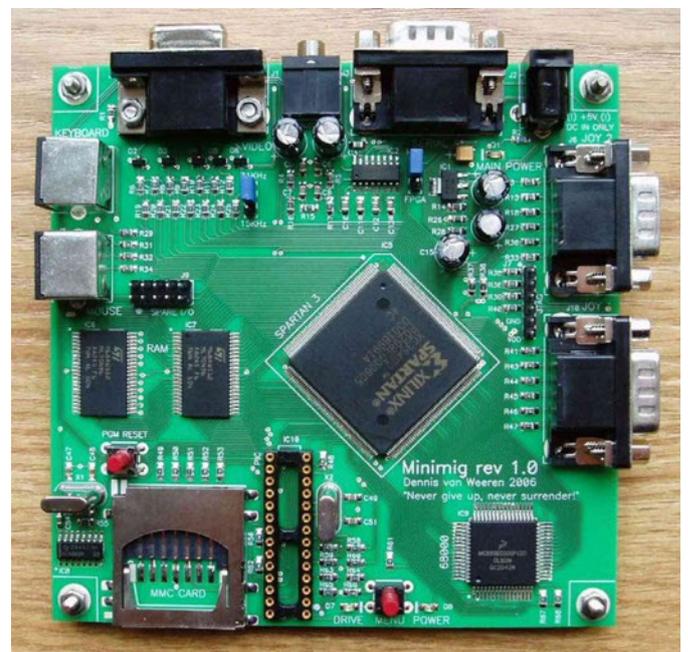
Now I also know what causes the trouble before. Spartan3 fpga support a feature called "Power Reduction". I did set this bit and it worked for my Minimigs board. Perhaps some other Spartan fpga production series (maybe tolerance issue) don't work at this feature active.

---- end quote----

If you have, can you please leave it in future because of compatibility problems?

@boing4000

Please can you make a fixed firmware again my Minimig is so silence at the moment



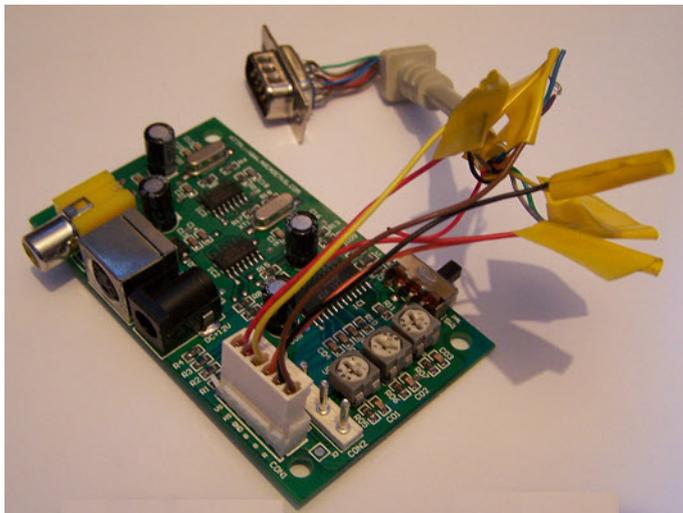
Commodore VGA Adaptor update

VGA breakthrough

<http://www.commodorescene.org.uk>

The C=VGA adaptor

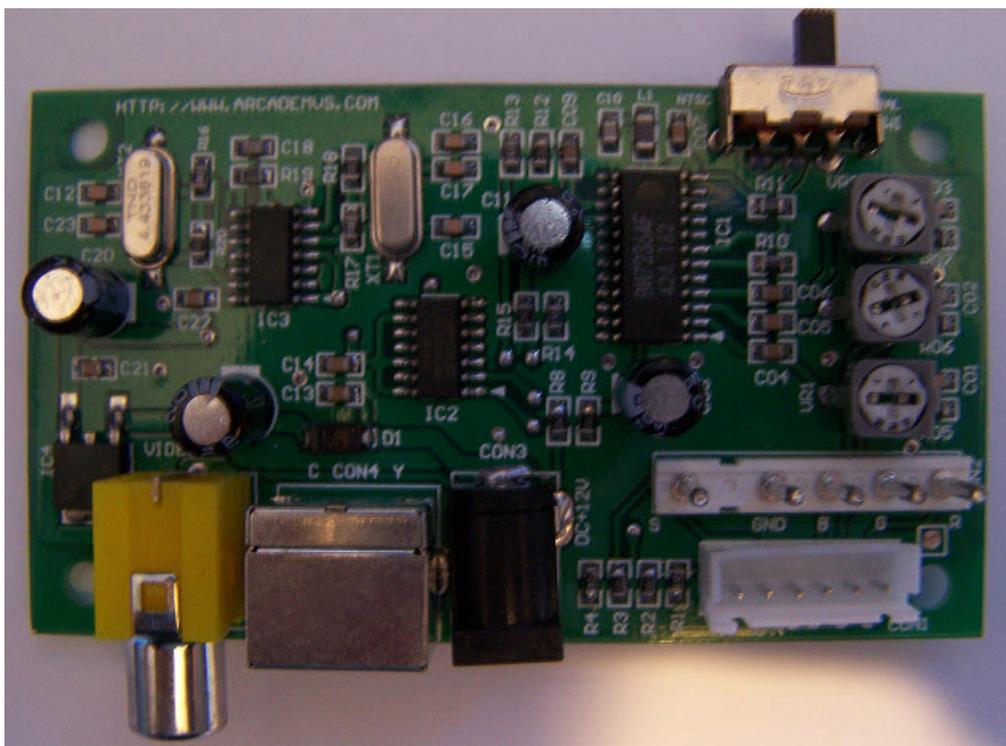
TEST VERSION 1 BUTCHERED TOGETHER AT THE MINI MEETING (I couldn't find any solder and the connector is from a 1541 floppy drive we butchered and is now no longer with us well on this electronics planet R.I.P my fine 1541 you served me well)



After the Commodore Computer club Mini meeting with Myself Shaun, Chris and Alan, all trying to get the A22 board working. Alan decided he couldn't give up! And after many trials and testing he finally had a big breakthrough. It looks as though the Commodore Scene VGA project may finally be finished; and by none other than Alan himself! I must congratulate Alan for sticking with the project in spite of all the setbacks Alan has spent a great deal of his own time and money on the project here is an email he sent to Myself, Chris and Alan of the CCC UK.

THE MAGIC A22 BOARD FROM CHINA!

<http://www.arcademvs.com> I don't think the site is up but search for A22 CGA board



E-mail

From Alan Bairstow

subject VGA ADAPTOR UPDATE

Hi everyone,

After quite a bit of experimenting and ready all the stuff that you've been sending me, I think I have can now make the following items if anybody needs them :

c64/c128 40 column display

1) S-video adapter from an existing LCA lead, this is quite simple as a simple resistor on the chroma line will bring the colours into focus (no blurring). I am going to adapt my current cable to bring down the chroma signal with a small resistor.

2) SCART lead - these are already available, however, if there is no resistor on the chroma line then interference & colour bleed can be an issue (as I showed at the recent show with the s-video lead) so it might be worth making these to our own specifications.

3) SVGA adapter from an existing LCA lead, in theory this should also be possible but I haven't tested it yet.

c128 80 column colour display (the B&W display is easy but not worth having really)

1) S-video adapter (or possibly just a cable), I am still trying to get the output crystal clear but I have a working test rig which looks very nice. We still need the A22 board to convert RGB to S-video so this will have to be built into a box to make it look nice.

2) SCART lead, I will be making this lead soon and looks like it should be fairly straight forward. This will have to be a custom made lead but I am hopeful that all the resistors will fit inside the SCART casing.

3) SVGA adaptor, again it may be feasible to create this lead using the same method as in the SCART adaptor but I'm not sure where all the resistors will go :- (A fly lead for the sound will also be need but this is easy.

Personally I prefer the SVGA lead as this will allow connection to any monitor - which is what I want. The only real problem is going to be the variations in different monitors and this becomes more of a problem if you are using SCART or S-Video.

Lastly, I would like to thank everyone (especially Chris) for all the info you've sent me over the past few months, I would never have got this far without you and I've come closer to my goal (80column > SVGA) in the past two months than I have in the previous 5 years ! I've learnt a lot and some of it has been hard for my poor little brain to comprehend but we are nearly there.

I'll keep you posted.

All the Best, Allan



NATAMIGA

<http://www.natami.net/ga.htm>

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- without abstraction layers
- without legacy drawbacks

This means the system needs to be built from scratch. It will not use standard PC components when their adaption or implementation causes workarounds which limit performance, functionality or usability. The priority is to build a very simple system design which is predictive, easy to use and fast responding like the Amiga was/is.

The original creators put great effort and many thoughts into how to keep things simple. The NatAmi is intended to keep this guideline as the foundation of its system.

This concept is the project name: **Native Amiga**

The NatAmi does not revive or copy an A500/A4000. It will be a succeeding Amiga model not done by emulation - it is done by reconstruction. Up-to-date and good performing components are used to retain the efficiency. It will rely on the original philosophy - but remove old limitations.

The NatAmi is an AMIGA compatible machine, allowing you to natively run original Commodore Amiga software

Natami Design Layout

In a consumer version the NatAmi is intended to be a very affordable

Amiga successor.

An Amiga that is powerful enough to be useful for today's typical tasks. The major long-term intentions for NatAmi are

- being an Amiga compatible design
- have the original AmigaOS, binary OS replacements and Amiga applications running
- enable playing new and classic Amiga games
- expand features to 24bit truecolor gfx and 16bit audio on custom chip register level
- implement USB, Ethernet and flashdisk support
- provide immediate system on/off and hibernation
- provide enough resources and power to surf the internet and watch on-line videos
- add features to be able to playback DivX, Xvid and DVD

We think that in this area the AmigaOS still has some major advantages. The original AmigaOS is very efficient. The combination of this very efficient OS and the usage of the powerful SuperAGA, will result in a very swift computer.

The Natami will not be a competitor to a Wintel Desktop machine, nor will it be a PlayStation 3 killer.

NatAmi Roadmap

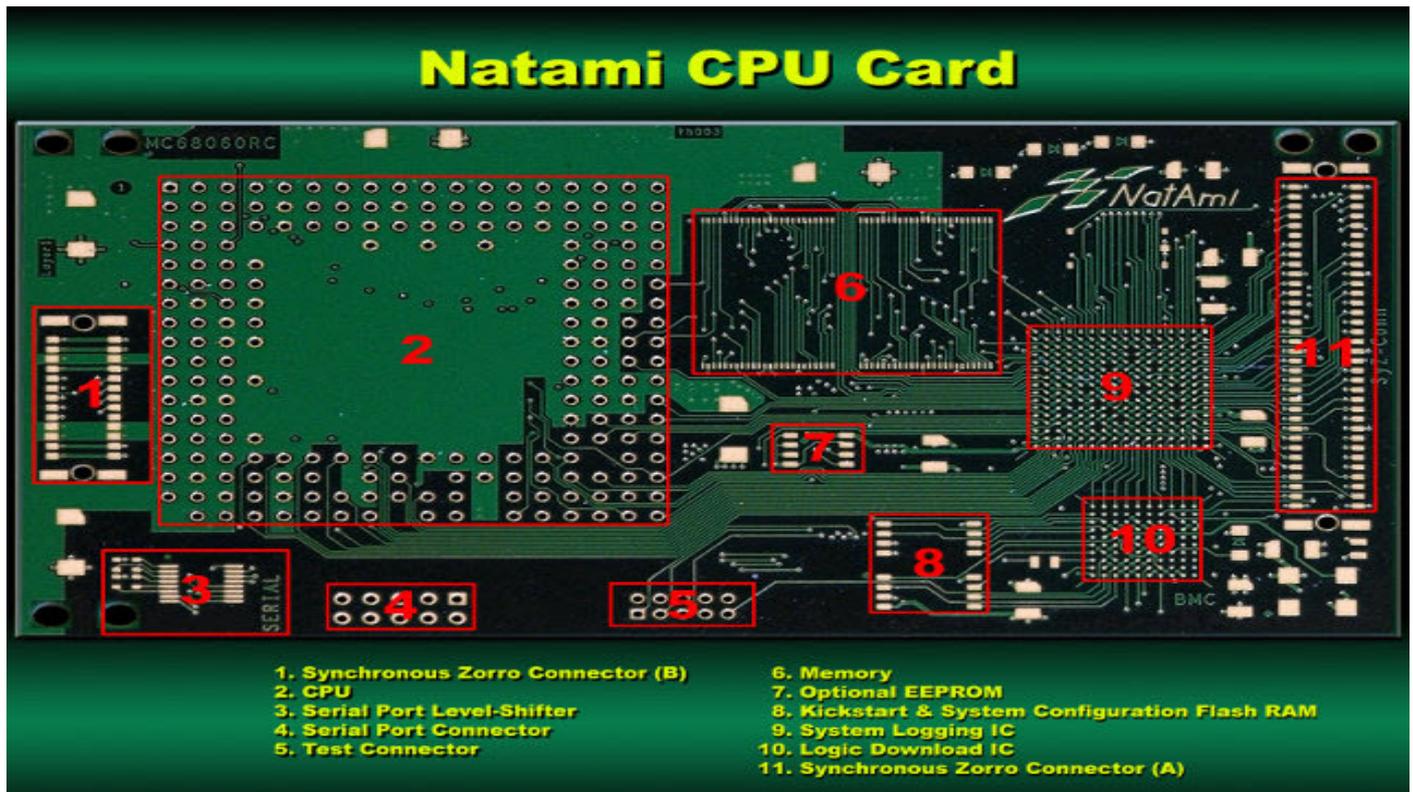
Our road-map currently is:
 MC68060 CPU board
 NatAmi developer board
 NatAmi retail board

The Natami dev-board has two main purposes.

- Allowing early developers to develop/port software to Amiga.
- Allowing more people to verifying the SuperAGA chipset to be error free.

When the dev-boards are out we will focus on three things:

- Designing the cost reduced Natami version.
- Developing our Next Generation 68K Core
- We will add new features to the SuperAGA chipset



NATAMITechnical FAQ

COMMODORE FREE

The natami team were very keen for an interview, however they were rather busy so for the moment I just took the FAQ with their permission, this answers 90% of my questions. Is it just me or are there just too many exciting projects, I hope this one is successful and I would be very keen to get my hands on one of these machines. I love the Classic Amiga but (now I am going to get more hate mail) I am not too keen on where the New Amiga is currently going!

CPU

Q Is the Natami team still evaluating the ColdFire CPU or don't you expect any performance gains by using a V5-core?

The 400 MHz ColdFire V5 is certainly a very powerful CPU. To be able to get the ColdFire we would need to "bake" chips. Baking chips is not a target that we can reach without help as it requires a major investment. If we "bake" our own chips we would of course have the option to bake our own 68K_CPU design. If we bake our own "softcore" into a chip then we could reach very high clock rates. Our softcore would then provide better compatibility than the ColdFire.

The ColdFire is 68k compatible, but to get maximum performance out of the ColdFire for AmigaOS, some patching of Kickstart and Workbench will be mandatory. By going for our own N68070 design we will save any patching and time.

Q Do you think you can break 1ghz with ColdFire or 68k you are talking about?

No, the 1 GHz barrier will not be broken by these chips. The New 68K chips that we are developing will be in the range of 100-166 MHz inside the FPGA.

Q Which is better? A real 68060 CPU or the new N68070?

The 68060 which runs at a max of 90-100 MHz is the only one in production and Freescale can stop production at any time. 68060 is expensive and has no memory controller and old 3.3 voltage use.

The "Self-Made" 68K provides a lot of advantages:

- Cost reduction
- Possible to add new faster and cheaper DDR memory.
- Higher clockrate of 133-166 MHz inside the FPGA.
- Memory latencies will be reduced.
- Powerful multimedia instructions could be used.
- The Natami-68070 could be made to be a lot more compatible with 68000 games. Getting it to be more compatible to the 68060 is simple.

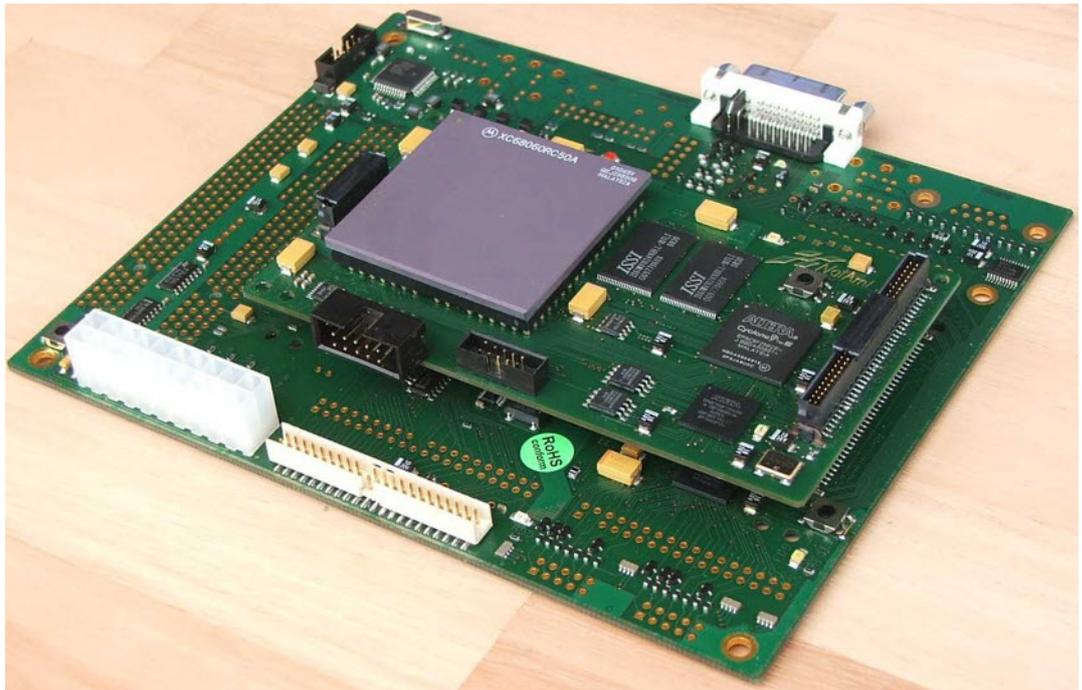
Q Will Natami use a 64 bit 68070 processor?

64-Bit is no advantage for AmigaOS as it wasn't designed for any more memory. For integer the "golden" mix of best performance 32bit is still the best. It will make sense to add a wider SIMD unit (64-128 Bit) A 64-bit CPU will only bring one advantage: more memory than 4GB. All structs and pointers in AmigaOS are designed for a 32bit CPU. A 64-Bit CPU brings many disadvantages over a 32-Bit CPU. What we should do is add a 64-Bit wide databus as this will increase the performance.

Q Does the Natami processor need cooling?

The 68060 runs perfectly fine passive cooled. The new 68060 revision 6 that the Dev-boards have, are produced in a smaller structure; needing even less power than the 68060 used in the old Amiga cards. None of the Natami chips require even a passive heatsink.

Q Is a Memory Management Unit planned for your new 68K chip?



No, not for the first CHIP generation. If you want a MMU; you can use the 68060 CPU card, There are many good reasons not to include a MMU: A MMU adds latency to all memory accesses. This extra latency will always be there, even if the MMU is not used. A chip design can try to hide the latency in a longer pipeline. Without such a latency the chip will always be faster. The performance loss caused by the MMU can be quite heavy. For the silicon that a fast MMU would need, adding something like ALTIVEC into the CPU would be a better choice. The 68060 developer boards are capable to boot NetBSD or Linux if they wish to do so. The great feature that Amiga users are so proud of, is to have HW acceleration for everything and by design just cannot be used under Linux.

Q Don't you need to create a new architecture for ColdFire or is it the same because the ColdFire is compatible to the 68060?

We did some research in this area, and we came to the conclusion; that it's possible to build our own 68k CPU that we could include in our FPGA. We found out that we could build a new 68k CPU that is even more compatible to older 68000 Software, than the 68040 and 68060 CPU. This new 68k CPU is more powerful than the 68040 and 68060. The combination of these advantages makes the Self-Made 68k CPU (N68050/070) very attractive for us. I believe that our design will be ideal for the next Natami design. We will ship the Natami60 board with a 68060 CPU. Later when our 68k FPGA CPU is finished the Natami60 board could install it into their FPGA with a simple firmware upgrade.

Q How does Natami compare to PPC accelerators used in 'classic' configurations?

A 100 MHz 68060 has a similar performance as a 100 MHz PPC. Our goal is that the Natami will be powerful enough for DVD/Xvid/DivX playback.

FPGA

Q How much can be gained by transferring the FPGA to a custom fixed function chip ?

Oversimplified answer:

- A - Medium price FPGA ~ 100-200 MHz
- B - Very expensive FPGA ~ 250-500 MHz
- C - Custom Chip based on little reworked FPGA code ~ 500 MHz
- D - Custom Chip complete redesigned 500 MHz - Several GHz

But creating custom chip (ASIC) does cost a lot of money. Option C costs some money but less than a million. Option D is too expensive for the Amiga market. For the best price/performance mix we target solution (A) for now.

Q Will the FPGA be possible to have more 68070 or SuperAGA cores ?

AmigaOS is designed to run very good with a 25 MHz CPU. The AmigaAGA chipset is running at 3.5 MHz and was 16 Bit. In an effortable FPGA, SuperAGA could be running in 100-200 MHz and in 32 Bit. SuperAGA Blitter is thereby 100-200 times as fast as the Amiga AGA.

The original Amiga always was a multicore design with :

- the GFX Chip with sprite features.
- the blitter
- the copper
- the Audio DMA
- the CPU
- In addition to this Natami has 3D core with texture engine

AmigaOS is perfectly designed to make use of the Amiga hardware features. Natami with SuperAGA is the only chipset worldwide making this again possible. PC GFX Card were never used by any OS as efficiently as the AmigaOS did with the Amiga chipset. With SuperAGA and the N68070 softcore, the Amiga Workbench will run on Natami many times faster than it currently does on WinUAE using a fast PC. A multicore CPU is not needed.

Q Regarding sprites - Have these been enhanced? Size? Number? Etc...

Sprite capabilities are unchanged and are the same as AmigaAGA. Using sprites make still sense for a mouse pointer. 8 Sprite channels with max 64 pixel width each and max 16 colours In today games BOBS have replaced sprites. Bobs are images that could be copied onto the background image.

Bob support is as follows:

- 16 Million colours max
- Unlimited size and number
- Copy, rotate and scale
- New ColorKey bob don't need a Blitting-Mask

The SuperAGA blitter has the power to blit the whole screen thousand times per second. The SuperAGA supports Gouraud shading, Z-Buffer, Bilinier-Interpolation.

Q Why is Natami not cycle exact?

Cycle exact was never needed on Amiga. The Amiga OCS, ECA and AGA is 16bit, 3.5MHz cycle frequency. Denise was fetch bitplane and sprite data using 16bit.Lisa could fetch bitplane and sprite data in a 32bit reads. Natami is running (worst case) 32bit 100-150MHz cycle frequency while still maintaining software compatibility. There never was something like 100% cycle exact on Amiga. Different Amiga models used different speeds of ROM/memory. So even an A600 was never 100% cycle exact to an A1000 or A2000.

What is useful for compatibility is a cycle exact Copper mode. And the Natami support two Copper speed (slow-compatibility) and (new-fast).SuperAGA is faster than AGA but also compatible.

Q Does SuperAGA support 1080P resolution?

If SuperAGA runs in the FPGA on the Natami60 board at over 145 Mh then this resolution is possible.

Picture of 1st Natami prototype (030 CPU) running Sysinfo



Technically 1080p is possible, but it is not guaranteed that the Natami60 will run at this clockrate. Graphics cards are used in SLI mode to increase frame rates on x86 PCs.

Q Is it possible for 2 SuperAGA FPGA's on the same motherboard to do the same in an Amiga?

The Amiga architecture is build around different DMA channels. Everyone has its own distinct task. The power of the Amiga originates in the perfect matching and cooperation of all DMA channels. A PC has only one DMA channel in its concept. The CPU today is a brute-force general purpose calculation monster. It can do everything on its own, so the GFX memory is not really part of the architectural system. On the Amiga it is the central part.

You may translate your question in Amiga terms like "is it possible to add a second blitter DMA channel to the system".

The original blitter is a pure 2D unit, so the computations the blitter can do are not that time-and so would not be be any beneficial to add a second blitter DMA. But technically the answer is "yes".

Q Where are the 16/32 bitplaned display modes?

The native supported pixel formats are:

- BIT = Bitplanes,
- COL = Colors,
- MC = Memory consumption (bit) per pixel
- MOB = Memory Operations by Blitter per pixel.

BIT	COL	MC	MOB
1	2	1	4
2	4	2	8
3	8	3	12
4	16	4	16
5	32	5	16
6	64	6	24
7	128	7	28
8	256	8	32
24	16M	24	6 (chunky-planar mix mode)
8	256	8	2 (chunky mode)
16	65536	16	2 (chunky mode)
32	16M	32	2 (chunky mode)

Planer Mode:

- + Reduce colours to limit the amount of needed memory for a screen.
- Very slow in drawing single pixels.

Chunky Mode:

- + Operations use less memory, no mask needed, speed x2 in 2D
- + Well suited for 3D or 16/32 bit modes

SuperAGA also supports special formats as HAM and YUV.

Q Can you tell me something about the SuperAGA blitter

SuperAGA blitter

- 100+ FPS with most games with effects
- Screen redraw x10+ per frame
- Virtually unlimited playfields in realtime
- Opaque, semi-transparent or translucent playfields / overlay
- Free bob scale, resize and rotate
- ColorKey support
- Alpha blending, translucent shadows, semi translucent fire or explosions

Q What is better 256 colour or 256 colour planar mode?

Comparing 256 Colour chunky screen vs 256 colour planar mode: On Planar the Blitter needs to do 32 Memory operations to update a single pixel On Chunky the Blitter needs to do 2 Memory operations to update a single Pixel Both Planar and Chunky have the same speed when doing big memory block moves. But if you paint row of pixels like in DOOM or Quake chunky mode is 16 times faster.

Q SuperAGA supports 16-bit chunky modes, would a 16-Bit planar mode make sense too?

Lets compare a Hicolor chunky screen vs Hi colour planar mode:

On Planar the Blitter needs to do 64 Memory operations to update a single pixel On Chunky the Blitter needs to do 2 Memory operations to update a single pixel Both Planar and Chunky have the same speed if big

memory blocks are moved. But if you paint a row of pixels like in DOOM the chunky mode is 32 times faster.

Q What is the Natami's power consumption ?

The SuperAGA plus new N68070 core will in total need 2-3 watt.

Q. Can we have a Natami motherboard with a minimum of 256 MB and two slots ?

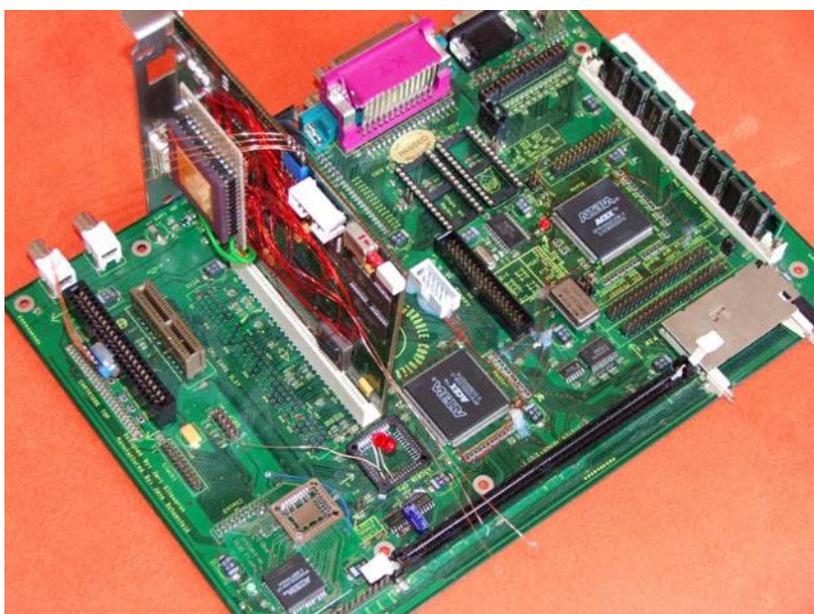
There are two big reasons that speak against slots. Slots are expensive and slots will cause issues as there are many different memory DIM models. DIM slots require higher testing budget and a lot longer time.

Q Could you please clarify Natami60 developer board?

The Natami60 developer board will come with FPGA and a 68060 CPU card. We are working on a new 68k CPU that can be loaded into the FPGA. This new 68K will even be slightly more compatible to 68000 software than the Motorola 68060 CPU. We hope that this new 68k CPU will also as fast or faster as the 68060 CPU.

This FPGA-68K can be installed into the FPGA of the Natami60 sys-

picture showing the C-ONE Development board.



tems. Effectively these boards will then have two 68k CPUs if they have the 060-CPU Card installed. There might be other parties producing other bigger or smaller boards based on the SuperAGA chipset as well.

Q Will the boards for the final users (not the Dev-boards) be complete boards?

The consumer boards and Natami60 developer boards will include:
 * Pre-installed with a legal, licensed copy of AmigaOS * Amikit
 Amikit is a pre-configured AmigaOS environment.
 Amikit includes a task manager, web browser, and many useful applications, tools, icons and games.

Q If we happen to buy one developer board, how we can upgrade to a new board so that we will have Ethernet?

The developer boards comes without Ethernet on board, but as it has several PCI slots, a normal PCI Ethernet card can be added. We will preinstall all the developer boards with a network card.

Q The first batch of Natami will be developer boards means that some bugs will occur, will a firmware upgrade be available?

Yes. The whole idea of the developer board is to allow debugging and upgrading of the firmware. The developer board is fully designed for upgrading and testing.

Q Would Natami include some ACPI features like power button press event detection, timer Wake up and Wake up signal from a PCI or USB device?

Natami is quick to boot and fast system. Workbench loaded in 1.5 seconds. There is no "Booting up delay" and no "Shutting down time". Natami does not see much benefit of Wake up signals.

Q Why couldn't a flicker fixer be added into the design?

For a real flicker-fixer you need memory AFTER the video stream is created. An interlaced video frame consists of two alternating single frames. An odd one followed by an even one. The odd one contains only lines 1, 3, 5, and the even ones 2, 4, 6. Because these frames are alternating there is no point where the displayed image is "complete". For that you need memory to store; for example the even frame. At the next odd frame you can insert the line 2 after line 1 is finished and, before line 3 starts. Only on this point is the picture really complete, but this is AFTER the flicker-fixer.

When the Amiga/Natami frame generator is in interlaced mode it starts drawing the odd frame beginning from line 1. At the end of the line a modulo value of one line is added to the position counter. So that the next line drawn is line 3. At the end of the display the beam position is set to the beginning of line 2. This is usually done by the copper.

-Games rarely used interlaced screens.

-Deinterlacing demos or games look IMHO very bad.

-Scandoubling games or demos look much better.

-Using interlaced screens for Workbench or applications makes no sense on Natami as you have all these screen available as non interlaced as well.

Deinterlacing applications screens is not needed as you can simply promote the "old-interlaced" screen to the "new-noninterlaced" format with software, as you did on AGA for PAL to DoublePal screen. Therefore a hardware interlacer is neither needed nor useful.

Q How will the RGB part work? Will no standard Amiga RGB connector-plug be added to the Natami?

The Natami distinguishes two video categories in general. High speed and low speed. The primary display is the "high speed" VGA. It behaves like the known RGB port. Its scan rate is flexible and programmed as introduced in ECS. For resolutions greater than 800x600 the boundaries of those registers are gone, the registers are still the same. All modes less than 30kHz line frequency are automatically scan-doubled.

The "high speed" video is mapped also as a "low speed" video signal. All television standards are mapped 1:1 so there is no difference to the old 640x256 for PAL or 640x200 for NTSC. All other resolutions are scaled to fit.

This "low speed" video is available as S/VHS PAL or NTSC and as pure RGB with sync. The RGB port is only available internally, there won't a 23pin SUB-D port.

Limitation: no flicker-fixer.

There is no way to enhance anything. A complete frame has to be stored for that. This takes memory. We already have two memory buses in the design. So there is only a scan doubler.

Q Will the internal RGB port have some kind of standard plug as well?

The RGB signals will be available internally on a PCB connector. Explicit documentation on IO etc. will follow. A backplane adaptor is needed, but really easy to build.

Q Can I reuse my old AMIGA GFX card in the Natami?

The SuperAGA chipset is a lot faster than the AGA chipset every AMIGA GFX card. SuperAGA is not only superior in speed but also superior in compatibility to all AMIGA GFX cards. SuperAGA extends the original chipset in a fully Amiga compatible way. (Screen dragging, using Copper in old and new modes on one screen, Genlock support) its all possible.

Q I see that you added great new GXF features to the original AMIGA chipset. Did you improve the Audio features as will?

Audio is improved to support high quality resolution, and high sampling rates. Natami supports 16bit samples and 24-Bit Audio out. SuperAGA provides a Multitasking friendly and DMA driven support for hundreds of simultaneous Audio channels.

Q Can we use normal pc cases to house Natami?

The developer boards will have a standard PC size motherboard. You will be able to use standard PC case for this.

Q Is there to be a preferred compiler language/environment that can be used on the Natami that source will get released for?

All Amiga software runs on the Natami. This means you can use anything for development ranging from SEKA-ASM over StormC, to GCC. Or you could use AMOS or the great Amiga Oberon.

Q Do you think there is a chance to play new games in the future on Natami?

We have no doubt that the powerful SuperAGA chipset will allow people to write very good quality games.

Q Would games like Half-Life or Quake be possible on Natami?

The Natami is powerful enough to run games like Half-Life 1, Robin Hood, Age of Empires, and Quake 1,2,3. The Natami is not powerful enough for games like Quake 4.

Q How to program the Natami?

The "normal" Amiga programming books are a very good start. The Natami is a 100% compatible Amiga, so everything of the "old" development documentation is still true. We are working on development tools that we will ship with the Natami developer boards. This will allow you to compile Amiga tools out of the box. We are working on programmer documentation for the new SuperAGA hardware features. This documentation will have the same style and (hopefully the same good quality) as the original Commodore docs. Our target is to have all this ready together with the developer boards.

Q Is the Natami faster than a current console?

The goal of the Natami/SuperAGA design is not to beat the PlayStation

3. The NatAmi intends to improve the original Amiga design to be more useful today.

Q What operating systems will the Natami support?

Our target for supported operating systems are exclusively AmigaOS and AROS. All the clever features of the original Amiga hardware and Natami hardware can never be properly used by Linux. Linux trades speed for security. Security is most important for a server. For a hardware platform that provides heaps of clever hardware acceleration, Linux will disappoint you as it can never use these features fully. Linux by design can never use the blitter and hardware features as closely integrated into the OS as the original AmigaOS did. MorphOS is a nice OS. But its PPC only and closed source.

Q Will the Natami be compatible to the CD32 Amiga console?

The Natami is mostly compatible with the CD32. The CD32 had a chip called AKIKO which was used to help converting pixels from CHUNKY to planar. There is a simple reason why SuperAGA does not include the AKIKO: SuperAGA already provides real chunky pixel format. So working with chunky and then copying the chunky screen through AKIKO into a planer screen to be able to display it, isn't needed any more. Implementing AKIKO is not a challenge at all, its just not needed as AKIKO dependent games are rare.

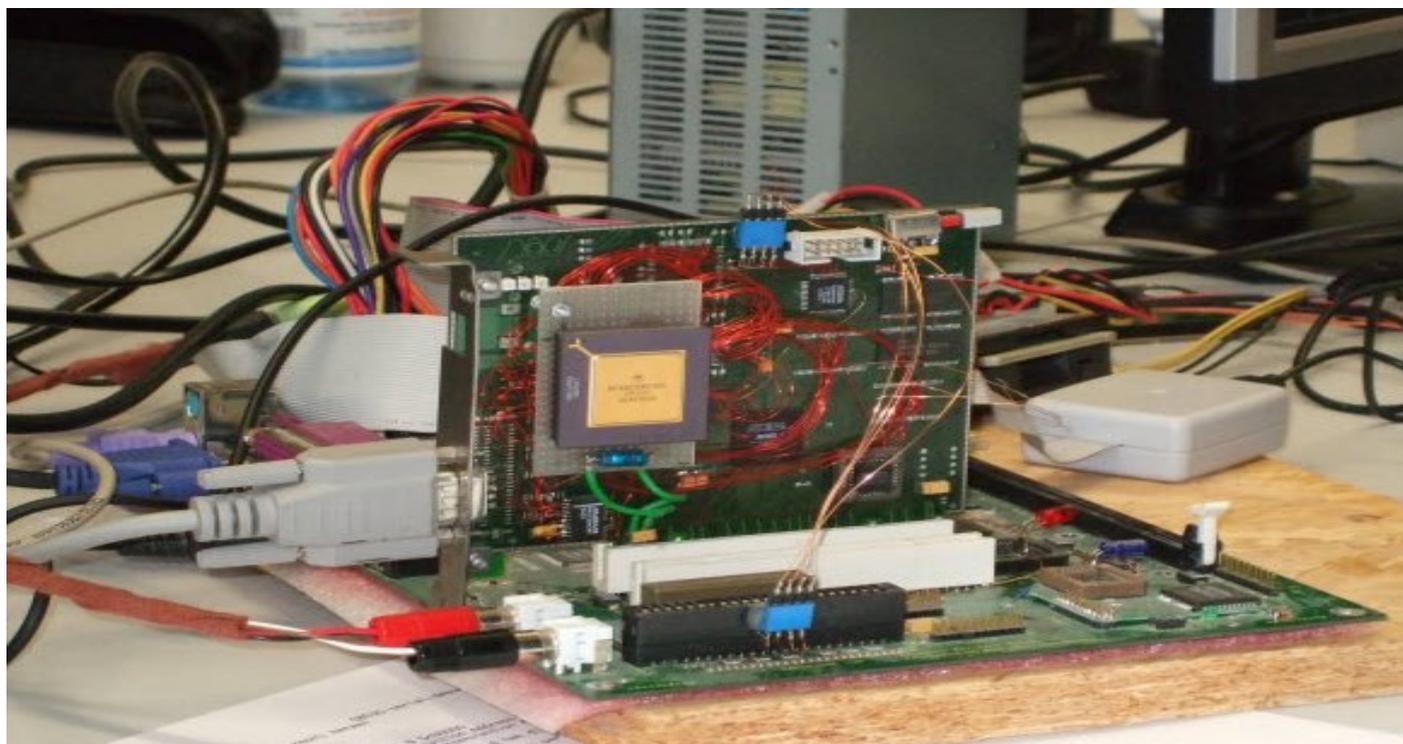
Q I emailed you recently, why didn't I get any answer yet?

Sorry, but we got an overwhelming response and only have limited resources in our team. That is why we have to concentrate on hardware and software work. If possible, you will get an answer.

Q My question is not answered here, What shall I do?

Please visit our forum. We will answer all your questions.
<http://www.natami.net/ga.htm>

*Picture of Natami 1st development Prototype:
For the development of the AGA-chipset a very heavily adapted C-One board together with a selfdeveloped 68030 CPU card was used*



Commodore Free Talk to Gideon Zweijtzter



Gideon Zweijtzter took time to speak to Commodore Free about his love of Commodore, and the future for his excellent 1541 Ultimate Plus upgrade.

Many of today's Commodore 64 users, enthusiasts, fans and so-called experts will be in their late 20s through to their mid-30s, and remember Commodore's mighty 8-bit from their childhood, especially in parts of mainland Europe where the 64K 'Bread-bid' did particularly well. Gideon is no exception to this rule, introducing himself as "35 and living in the Netherlands" and revealing a typical story by recalling "as a child I was really hooked to the C64 for many years, starting at the age of 9. At the age of 11 I got my first C64 of my own. For some time, I used it for everything, including writing fully laid out documents, using PrintFox, then the Amiga came, and I switched over", and regardless of upgrading to the 16-bit Miggy, it was the 64 that started his love affair with computing, and with the Commodore brand.

Behind all of this is a dark secret, "the C64 was the first... although I also secretly played with my brother's [Sinclair] ZX-81 before the C64 came." Whilst you recover from the shock of that revelation, it will be less surprising to hear what drew Gideon into using computers in the first place; "I was often programming, and I spent hours and hours copying games, but I never actually played any of them. Only Giana Sisters. I was hooked to that!"



So, it was the all-round usability of the C64, especially as he "used PrintFox for editing and writing reports for school. And I enjoyed the C64 a lot, really. I believed it was a very good machine for its time." Now, if only I'd had Commodore's set up 'for educational purposes' in my school. Sadly, like most people in the UK, if I wanted to do school work on a computer, it'd have to be on a BBC Micro, something that most people didn't have at home.

As we talked, Gideon admitted that his obsession with the Rainbow Arts game The Great Giana Sisters, revealing "I was so hooked on [The Great] Giana Sisters, that I reverse engineered the code to some extent and wrote a level editor and created Giana Sisters II, together with two friends of mine", although his version including the level editor was never made available to anyone else, his edited game found its way out: "Giana Sisters II is available. I was very surprised when I found it on a 15000-games DVD."

Like many of us, his C64 was dormant for many years, waiting to be rediscovered. "My Commodore had been pretty much 'dead' for me for many years." It was never forgotten though - "Professionally I got into programmable logic, the generic term for FPGA technology. Then, when I wanted to do some experiments with FPGAs for a hobby, I chose the C64 as a platform. The first thing I did back in 2000 was write a 6502 in VHDL, and replaced the 6510 on a real Commodore with mine, and debugged it until it booted the kernel. "Then I wanted to write a 32-bit 6502 replacement, but that project never got finished, mostly due to the fact no one would ever write a compiler for it." A 32-bit 6502 replacement? I pressed him to tell me more, and whether or not it was inline with the 65832 I had heard about earlier in the decade. "My project was the 65GZ032; a CPU that could execute both 8-bit instructions as well as 32 bit



instructions without switching between modes.", so it was something different, though would be compatible with "the 6502" which he "used it in a project at the university." After abandoning his 32-bit dream, he concentrated on a VHDL replacement for the C64 chipset, as he explained. "For some years, nothing happened... at some free evenings I wrote VHDL to replace the other C64 chips, and demonstrated a working C64 in one FPGA chip at my work place, using an (expensive) FPGA development board. I did this just for fun, actually. And the Commodore One from Jeri Elsworth already existed at that time."

So, how did the idea for the 1541 Ultimate come along then? "Later on, I talked to a colleague of mine about what I could do, since others already developed the C64, so then the idea came up to implement a 1541 instead. At first, I demonstrated this using a development board. I could load a disk image through Ethernet from a laptop and demonstrate the operation. And later, the idea came to implement this on a cartridge, and use the C64's VIC chip to display a menu to select disks. This is how the 1541 Ultimate came into existence." But, it didn't stop at just implementing a 1541, as this piece of kit can mimic many cartridges, including the 17xx Ram Expansion Units from Commodore. "Actually, it was more of a fun thing again. I equipped the 1541U with 32MB of RAM, and

One thing on the mind of many GEOS enthusiasts is, will he ever get around to implementing such devices as the RAMLink, so I pressed him on this. "Not yet, but ever since the sales of the 1541U took off, I am so swamped with other things than programming, that it is just a limitation of my time." There is quite a wish-list for the hardware, as he stated, "many people have asked me to implement many extensions, but my time is limited." Of course, he is only one man, and not an entire industry, or a production line, as we must remember! He also had his priorities sorted when I spoke to him, "at this moment, having a holiday is the top of my list!! Haha!"

As we will all appreciate, he has needed a holiday, "honestly, since I am still working full time, the 1541U project has been wearing me out a lot", but you can never stop a workaholic, "technically, when it comes to the 1541U, I am working on a new version of the firmware, that will remove some of the current limitations in the software design", although many people have said that the device is hardly 'limited'. Gideon seems to have something of a perfectionist in him, as he sees a lot of room for improvement "the current firmware is based on a 6502 CPU. This CPU has many limitations. It can only access 64K at a time, and as you understand, the 1541U needs to address more data in its memory. So there is an extensive memory mapping scheme in effect that enables the 1541U to do the things it can do now. But it is a dead end, since the whole firmware is full of memory mapping code. In this way, it is the address bus that has the limitations. The idea is to use a small 32-bit CPU in the new firmware. But this transition involves rewriting a lot of the code!"

So, will we have a 32-bit future then? Surely, if this can be done, the 1541U really will be the 'Ultimate' cartridge, but he continued, "I have put some efforts in creating a new version of the hardware, which is now announced on my website. I am trying to make the new 1541U even more versatile, and make it more 'ultimate' than the current one is. But I think that after this one, I will have to start looking for other things to do in my life." I'm sure you will agree that, when this time comes, we'll be left with one superb piece of hardware that will even appeal to the more casual users.

What of the future for this project though? I told him about a friend of mine who said that he fully expected there to still be Commodore users beyond the year 2000, though he wondered what people would be doing with the old 8-bit other than playing classic games. Many of you will know the answer to this, as support came along for PostScript Laser Printers, and connectivity to modern networks. Where did he see the Commodore 64 platform in a decades time?

Teasingly, he said "I think the new 1541U will once again add something to the C64." So, what exactly? "The major new addition to the 1541U-II is a USB-host port. With the right software support, this port can be used to attach memory sticks, other storage devices like hard disks, as well as printers and other stuff. And yes, connect a PC to share files should be possible as well." After salivating at these thoughts, I came to my senses again and continue to press him for more information.

"Well, the power usage of the [new] cartridge itself will be somewhat lower [than the 1541U]. But you have to keep in mind that without the use of a powered USB hub, the C64 will power your external USB device, so this is not recommended. Though I expect it to be no problem to use a USB memory stick. Initially, the only USB support in the firmware will be for mass storage devices, so that it can be used for the fundamental 1541U function. No HUB support at first." "Will we need a separate Ethernet adapter then? Gideon thinks not, at least in the medium term. "I think, that in time, it would be possible to emulate the CS8900A chip in the FPGA, and use a USB to Ethernet adapter to provide Ethernet functionality to the 1541U-II again. That is why the Ethernet port has disappeared." And what about using USB joysticks? "Yes, indeed. Although joysticks need to be supported [in the hardware] as well in the software running on the C64. This is because the 1541U cannot replace the 6526 CIA chip inside the C64; otherwise it would be possible."

It may seem an obvious question to ask, but stating the bloomin' obvious is something that I'm very good at. 1541U-II will keep the Commodore platform interesting for the next few years at least? "I hope it will!" Gideon replied, further explaining that "the 1541U-II will bridge the Commodore platform to modern hardware, which gives a lot of new possibilities. And since the Commodore platform is such an open platform, people might want to create new, fun applications. I wished I could have come up with the 1541U ten years ago" indeed, as do we all. And so the interview came to a close with Gideon, humble as ever, leaving Commodore Free's readers with a message: "The most important thing I would like to say to the CF readers is 'Thank you!' Thank you for so many of you having interest in the 1541U project, and for the trust many of you have shown by paying in advance and sometimes having to wait for a long time before I can deliver the hardware." The future is looking bright again, and it seems that through Gideon we have a new CMD; giving us what we are missing, functionality, compatibility and performance, and at a cheaper price than those coveted 90s upgrades.



RETROACTION

THE DIGITAL RETROGAMING MAGAZINE



Interview with Neil Reive, Editor/Designer of the digital retro gaming ezine Retroaction. Editor of Retroaction magazine

<http://www.retroactionmagazine.com/>



(sadly this is) through emulation though.

Q. Can you introduce the rest of the "team", what each person does, and if they have any "special powers"!

A. My Deputy Editor is Gnome (who has a very popular gaming blog at <http://www.gnomeclair.com>) and was the first recruit for Retroaction magazine. Gnome is a great writer who contributes with articles, interviews, helps out with the planning of each issue (content wise), proof reading and promoting. Unfortunately, Gnome is currently away on mandatory military service in his native land of Greece, so his spare time is limited, if not zero, for the time being.

I was very pleased to get a Sub Editor on board from issue 3 onwards. Alan Leffingwell sorts out our dodgy

Welcome to Retroaction

The new digital retro games magazine is here.

- Reviews and previews of new games on retro platforms
- Features and articles on classic retro games
- Interviews and articles with people in the retro gaming scene
- Fully interactive links: website, emails, bookmarks, downloads, and other links at the click of a mouse button
- A logical digital PDF layout and design
- A global collective team of retro gaming enthusiasts

The magazine is released quarterly (one issue for every season). Retroaction forum is also up and running with topics including Magazine Talk (discuss the magazine here), Retrogaming (talk about all things retro: homebrew, old games, retro remakes, emulators), Retro Games News (new retro games news and info can be discussed here), plus there are other topics such as Current Generation (where you can talk about the current generation of consoles and PCs), and Off Topic (anything: football, life, politics, and so on...).

Q. Please introduce yourself to our readers. And do you use Commodore machines?

A. My name is Neil Reive, Editor/Designer of the digital retro gaming ezine Retroaction. I also edited and designed the Amstrad Action tribute magazine that was released in 2008. I have been interested in retro gaming (as well as having a big interest in retro mags) for a good few years now. And I live and work in South West Scotland.

Unfortunately, my C64's joystick port failed on me some time ago, so I can't play on the actual machine (as such) any longer. I do still play C64 games

spelling, grammar and punctuation. He collaborates with myself on the copy editing of all articles and reviews. He is currently living and working in South Korea, although he originally came from the United States.

Our regular writers are Duncan Rule (who I headhunted from various DOS forums, as I wanted someone with good knowledge of DOS), Mark Hall (someone I contacted after a suggestion from my AA tribute cohort, Ali Halabi), Duffman (an old school friend of mine that I coaxed into doing some homebrew reviews), Matty (<http://mattyongames.wordpress.com>) also helps out with the homebrew reviews, mainly involving his beloved Spectrum, Ack (joined us for issue two, following discussions about the lack of 32/64-bit coverage in issue one) and CaptainD (<http://captaind-pc-gaming.blogspot.com/>) joined the team from issue 3 and has contributed articles on Amiga and Atari ST). We also have various writers that pop in every now and then to help out with the odd article.

Q. How did Retro action start, and what prompted the magazine's production?

A. Retroaction came about because there were so many great ideas that I had during the production of the Amstrad Action tribute magazine. They just wouldn't have looked right, or have got the full potential out of them, if they were published in a one-off tribute magazine. Hence, Retroaction was born. The name is basically a take on the Retro Action section in the AA tribute magazine, which in turn, is a take on the Amstrad Action name. I joined the two words together after I discovered that Retroaction means something that happens because of past events or, as in my forum signature at the moment, "actions influenced by the past", and I couldn't describe our magazine any more perfectly than that.

RETROACTION

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"That's my story, just the way I lived it... The galaxy I am in today doesn't appear on any of our navigation charts. It's impossible for me to calculate my return trajectory. I'll probably drift in space for a very long time..."

www.retroactionmagazine.com
blog.retroactionmagazine.com

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a discussion on our forums where the question "What is PC retro?" was posted. We tended to focus on the PC's operating system rather than the hardware, but I would say that the 286, 386, 486, and Pentium I and II are retro. While there were opinions going back and forth, we kind of agreed that Windows 95/98 are retro platforms as DOS is inherent within the system. Going with the "ten year" and "unsupported" guidelines, I would have to say that the original PlayStation is now retro, as is the Dreamcast (which celebrates its tenth birthday), but the PS2 is not. I would also think of the classic Amiga computers as retro.

Q. How is the magazine delivered?

A. The magazine is available to download (for free) from <http://www.retroactionmagazine.com/>. The main download is the PDF file, while the ZIP archive is basically the same file, but the archived filename has no underscores in the spaces. There is also an option to view the magazine online with the ISSUU (on-line PDF website) link. This is something I added after completing issue one, and it looks pretty good online, although it is best to download and view the PDF if you want the full use of the magazine's interactive features (bookmarks, anchor links, etc.).

Q. How do users know an issue is ready to download?

A. There is an email subscription service where readers can sign up to get notified of any new issues. Other options include subscribing to the website's RSS feed - new issues are announced through our news section. The forum also has a thread on each issue's production progress. We also post announcements in a select few websites of the issue's release. And of course, staff members and readers post their own blogs, news, reviews, forum posts, etc.

Q. You cover all retro machines in the magazine, but could you explain the term "retro" and what you think makes a machine "retro"? For example, would you class an IBM 286/386 or 486 as retro machines? Would the Sony PlayStation 1 and 2 fall under the term "retro", and what about the classic Amigas?

A. "What is retro?" This question has always been the subject of discussion amongst retrogamers the world over. It is a grey area that I've tried to avoid discussing. At Retroaction, we've got an unwritten rule that goes something like "is it over ten years old and not supported by the manufacturer anymore?" We also had

Q. Some people would object to the term "retro" classing only 8-bit machine as "true retro". I know these debates get quite hot and steamy, but would you like to comment on this?

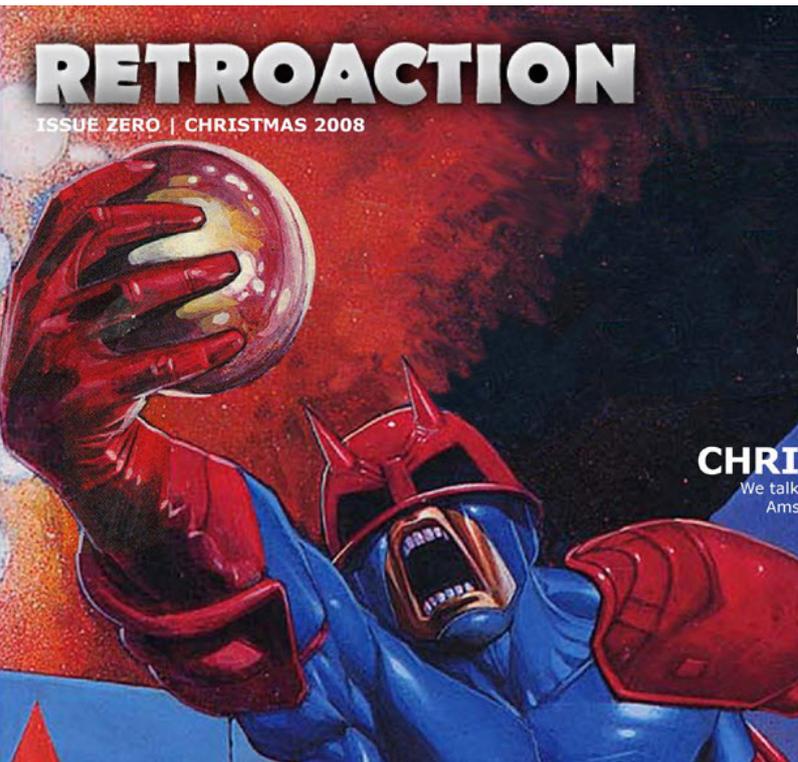
A. It's a shame that some people get so hot and bothered over this subject. To me, retrogaming covers a vast period of time, from the 70s to the 90s. While everyone is entitled to their own opinion (although this is probably biased to the time when they grew up), they are really missing out on some fantastic retro machines and games.

Q. Do you have a favourite machine, and why?

A. No, I don't really have a favourite machine, as I tend to focus on the games rather than the platforms. I do have a fondness for the Amstrad CPC as it was my first computer. Respect is due to the PCs that I have had, which provided

RETROACTION

ISSUE ZERO | CHRISTMAS 2008



KILLER AP SPEEDBALL 2

One of the Amiga's and The Bitmap Brothers' finest games

CHRIS ANDERSON

We talk to the person behind the birth of Amstrad Action and Future Publishing

LASER SQUAD

We take a Retro Respect back in time to 1989

access to emulators and the production of Retroaction.

Q. Do you have a "retro" game that always gives you the WOW factor? For myself I still look at Elite and get that WOW factor, even now.

A. I'm always amazed at the playability that Laser Squad can give after all these years. Such depth in a game that looks very simplistic. A great example of gameplay over graphics.

Q. Retro is becoming quite a big business; machines are selling for larger and larger amounts as time goes on. Has this spoiled some of the fun?

A. Yes, it probably does spoil things a little, although rising prices for ageing product is inevitable, especially as they become more rare.

Q. Do you think Emulation has helped raise the profile of "retro" machines or do you think the Emulators detracted from the machine in some way?

A. Emulation has been (and still is) very important to the retro gaming scene. Without BlueMSX, I would not have been introduced to the MSX. Also, many homebrew coders use emulators to produce their games. Eventually, the actual machines will disappear through failure or clearouts and emulation will become the only way to play games that were designed for these machines.

Q. Running the machine under emulation can't compete with running the machine in the flesh can it?

A. You're right, that's one thing that emulation can't recreate (at least, not at the moment): the feeling of physically using the actual machine.

Q. Do you follow new developments in machines like the MINIMIG and the 1541 Ultimate and Uiec projects?

A. I have noticed the Minimig and was very impressed. The 1541 Ultimate and Uiec also look like great projects. It's great to see people keeping the old machines alive with projects like these.

Q. OK, can I put you on the line which machine is best, or if that makes you feel uneasy can you give me a top 10 of machines you prefer and why?

A. PC is a must for me, mainly for its emulation capabilities, DOS access and Windows games. The Amstrad CPC and C64 are two 8-bit computers that I have great affection for, as I owned both machines in the past. They are also capable of producing some fine games, still. Out of the 16-bit computers, I preferred the Amiga for games such as Speedball 2 and Sensible World of Soccer. The Sega Mega Drive was the only console I ever had, and some fine games were released for it.

Q. Do you think a lot of machines have failed that were technically superior, but lacked software, and are there any so called "failed" machine that has a large following?

A. Oh yes, there have been many machines that have failed, despite being superior to their peers (the 3DO, Jaguar and Neo Geo spring to mind). There are also machines like the MSX that failed in the UK and USA but had a large following in other parts of the world (Netherlands, Brazil, etc.). Lack of software is a ma-



yor factor in a machine's failure, but there's also marketing, popularity, pricing and brand loyalty to consider.

Q. Where do you see your team and magazine being in 5 years time? For example, could you see the magazine being commercially printed and sold through retail distribution?

A. Hopefully, we will still be around in five years time. There are no plans to release a printed version and I don't see it ever being commercially available. When I dreamt up Retroaction, it was designed to take advantage of the interactivity of PDF (bookmarks, anchors and hyperlinks). Retroaction would require a complete redesign to fit into a print format and would not be the same magazine.

Q. I know I struggle for articles and text, so if a reader wanted to help Retroaction, could they send something to you for inclusion in the magazine?

A. Yes, I'm always willing to listen to any offers of help, especially regarding homebrew reviews, as Duffman will suffer burn out if he continues at this rate. No Duffman, no Retroaction. Also posting news in our forum of new homebrew games is welcome as we can sometimes miss a game's release.

Q. Are you Commodore Free Readers?

A. Yes, I download each issue and have a great read through the articles and interviews (I enjoyed the recent coverage of C64 Forever). Gnome also reads CF when he can get the chance. We also post news of new issue releases in our forum and news section.

Q. Do you have any other comments you would like to add?

A. I would like to thank the whole Retroaction team for their work this past year. Thanks guys. Plus kudos to everyone who helps keep the retro scene alive by coding homebrew games, producing ezines (like Commodore Free), hosting retro websites, etc. Also, thanks to everyone who has responded to Retroaction. It's been nice to see the scene's response to each issue, even if it isn't always complementary. I just love doing the mag and if people like reading it then that's an extra bonus

RETROACTION

Commodore Free 3D FPS Maze Shooter

<http://www.commodorefree.com>

I know that many programmers have shied away from making Doom on the 64 as the finished result would need to lose so many elements that the game (DOOM) would be unrecognisable. So this project is to create a 3D style game, Loosely based on the Doom style, people call this First Person Shootem up (FPS) Or First Person Perspective Shoot em up (FPPS)

In these types of games you run around corridors clicking switches and collecting keys and killing aliens or Bad guys, collecting ammo and health points and upgrades to your hardware i.e. updated guns or grenades. The First person perspective would be the preferred method Hence the FPS title. And would need to include

level editor add on, (doom had WAD files with character data and music this would also be welcome addition for add on packs etc..)

If people want to donate to the project as a prize money find then ensure you say that the money donated is for the 3d maze FPS "

The game would be released by the Commodore Computer club with full graphics artwork and in different formats, eg. disk. ad card, digital download

So. would you be interested in purchasing such a game and how much would you be prepared to pay £12 ? + postage, of course this is all theoretical at the moment as we have no game and no full idea if anyone is

interested in programming it, our purchasing it, please mark emails on the subject to commodorefree@commodorefree.com title Commodore Free 3D FPS I will updating my web pages from the main Commodore Free page about the project when interest is sufficient

The programmer will receive a set amount per sold item of the game (yet to be decided and it would depend on media and art work costs) of course if more people are interested then it may mean more money for the programmer to entice them to the challenge, as well as the set amount per game sold any money in the "donations pot" would be prize money to the programmer. You know it can be done. I know it can be done it just need someone with the skills to create such a game,

DO NOT CONFUSE this with the <http://www.Commodorescene.org.uk> project to create Doom64 this is a different project and I believe Commodore Scenes project is now closed. The Commodore Free project is to create a FPS (first person Shootem up) in the Doom style.

You can use whatever add-ons you feel are needed for example

- The Cmd scpu
- the 1541 ultimate
- Cmd Ramlink /Hard disk
- Uiec Devices

Thanks

Nigel <http://www.commodorefree.com>

MOOD 1 & 2



MOOD 3



Evil Computers

By lord Ronin from Q-Link

I rant on the glory and wonder of the Commodore PC in my writings, irc and in real life. As it is the system that took a computer phobic to a fanatical C= user But what did it have to overcome? I don't just mean me, personally, but for my generation. Making the question of what was wrong with computers and my generation?

The question is answered in the title to this piece.

OK I am a baby boomer, somewhere around 60 years of age. Well physically if not mentally. So lets take the TARDIS and jump back to the late 50s, and into the 60s I think I can remember the 60s. Sort of all in a purple haze to me.

Computers and Robots which were the same thing back in that time, were vile evil creations of ancient races or mad scientists or alien invaders. Trying to destroy mankind and or the Earth. Well that is what we were told as kids in that time. Tossed at us in the Saturday night monster movies You know those 2nd features at the drive in, (does that show my age?) Given to us for entertainment. even Gort in the Day the Earth Stood Still, is a computer Robot, and could destroy the world. And that movie was tame compared to the others we saw in that time. Comic books, (and I read a lot of them at that time). Computers controlled people and robots. All of them seemed to be the enemy. T.V. shows gave us mixed messages. Some robots and computers where friends, and more intelligent than the characters, self sacrificing servant (the slave) of man.

My mind remembers that those shows were pretty lame even for my age. Take Star Trek, how many good computer - robotic systems existed?

Even the one on the Enterprise gave them problems at times. Though I have not seen it for over 40 years. I remember in the Avengers, that there was a mad computer thing. Then in my favourite show the Prisoner in the episode "The General". The computer is programming the members of the Village. Another one had a mind transfer story, with of course was completed with the aid of a computer. Then at the end of that series. #1 sees them using the computers to set off the missile.

Of course there are also the novels. I still have many of them with the (get ready for this one!) 35 cent cover price! Paper back books in the Sci-fi field. Good ones and ones that make my work look like Pulitzer prize winning material. One I remember was computers running star ships to conquer the universe. Or was that a collection of books using that very same theme? This went into the 80s as well. Can't remember the series or the author. But I remember the computers going after "bad life" in several books in the series by the author. Even today, in the prequels to the Dune series, there are the computers as bad guys (Butlerian Jihad for Dune fans)

I love the Geny and Sylvia Anderson shows. FireBall XL5, Stingray, Thunderbirds, Joe 90, U.F.O.. and Gerry's show TerraHawks. Those are the ones that after, more years than I want to count. I have collected on DVD. Few more that I want to find as well. But for this piece of text. Oh yeah there are stories about bad computers Even for a kids show. Another one of that time that I like, though to be honest never saw the show just the movie, till 1982. But have rented all that I could find and am buying them up now on DVD. "Dr. Who," and for those that know me I am not the William Hartnell Doctor

Though about as cranky and goruchy (LOL). And yeah computers are also the bad thing. One episode in particular sticks out in my mind. Keys

of Time series, where the enemy planet is run by the computer.

OK you are getting the idea that my generation. Based on the media to which we were exposed. Have an image of computers that is a bit off. Not only that they are evil things But that they are impersonal and are stripping the user of all personality. Take the stereotype image of a computer user in the 60s and early 70s. Short haired, thick glasses, held together with tape. White button down shirt with plastic pocket protector. Stuffed with pens and diddle sticks. Absolutely no personal life outside of dealing with the computer. Ah for the record. I don't look like that at all.

(EDITOR hmmm mmm I do! and come to think of it I have no life outside computers, wouldn't it be cool to live in a house shaped like a Commodore 64! Sorry go on ..)

More like something that crawled out of the jungle from the war, and or a crazed biker. Blow that stereotype. But then today EC all break that image.

Well there is a lot of input to my generation. So far I have related the media input and social input to our impressionable minds. Remember also that in the 60s we were a bit rebellious against the established order of the establishment. Oh wait I still am. So computers where looked upon as impersonal things that also would take jobs away from people.

But there is another input that made computers evil for us. This one I witnessed. My Dad got in the gas bill. Can't remember the amount, but it was way over the monthly income. He hit the roof, well he hit the walls. Went from English to German. I knew that meant he was ticked off, and then into Yiddish. OK that meant it

was time to head to the bunker. Dad was livid. He went to the phone and well. I can't repeat what he said. As this is not a restricted publication. Oh he was hot on the phone. Didn't help when they told him that computers don't make mistakes. Now it isn't that the amount on the bill was wrong, though it was! Ah you see, we had propane. We were many miles from the gas line. I mean, we didn't have natural gas in the house. But they said we did and that we owed that gigantic amount of money.

Years later when I was in college. I learned some key punching in Fortran for my electronics degree. There I learned how a misread line by the key punch operator could smeg everything up. OK and how to make those cards disintegrate in the machines. Dad eventually won the bill problem. When the meter reader came out to the house. Not being able to find a gas meter, let alone a gas main within 10 miles of the house. This happened to many people with utility bills, as well as bank statements. I still remember the "Please do not fold spindle or mutilate" messages on the bills. As they where the punch cards.

That class I had to take, is where I heard more of the honour stories of computers and people in the 60s. Fingers being smashed or cut off in the machines. In fact I remember the room with the actual computer. Ran on magnetic tape reels. Was a super clean room. Hat. coat, booties, and I had to have a mask because of my beard. Went in there just once. Swear it took most of the class time to put on and then remove all that stuff.

So take all of that, and you can get the idea why members of my generation were computer phobic at my level, and just not that interested at the lower level. But what could turn us around? Ah. kids man, kids. When the C=64 come out. I was on my 3rd marriage. My kids by my first wife were 6 and 11. And not living with me. So it puts me out of the field. However in talks with others of my generation, I gained the information.



Computers didn't have the same feeling for the kids of our generation, that they had for us. They really hadn't entered the work place in any real force. OK I had them where I worked, because I was the Chief Tech for a local Radio Shack store, and dealt with the TRS-80 4k units. Which I sold to parents for their kids. I think the cost was like \$400 or \$600 for them. Really can't remember that one.

OK many of you know that I am into Role Playing Games. For over 30 years. Well not all of these games are sword and sorcery. I enjoy the Sci-Fi ones, and the Espionage ones. But my feelings towards computers became a road block. In fact I took my favourite game Top Secret, the first espionage game. Putting it in 1971. Besides being a familiar time frame for me. But it also meant not having to deal with computers. But in games like Traveller, well there are computers. I could have the dice rolls for the players to do things with for and to the

computers. But couldn't story tell that part of the story for the game. Made the game go flat when there was anything dealing with computers. One gamer at the time had a Franklin computer. He tried to get me to do something with it. and I bloody well near had a panic attack.

My mum had been trying to get me into the computer thing. Saying that I was a writer and needed the computer for that sort of work. Well it took a late Hannukha present, and her having a quintuple bypass for me to go visit her and pick up the system. Scared to death of thing. All the way on the 400 mile drive, then worse when it was sitting on the coffee table, and two of the commune members hooked it up for a test. More scared to do anything with it. like I would destroy something. Well I did later and more than once with disks. But that is another tale.

Eventually I went over the 64 guide. Can't remember how long it took. But it was over a day and I did it in one sitting. Not a thing I would suggest to anyone. What is the most important about this book is that it was made for me. Not for the kids of the early 80s. But for me the non computer liker of some level. That book takes you from putting the system together into making Michael row the boat ashore, as a musical piece. I

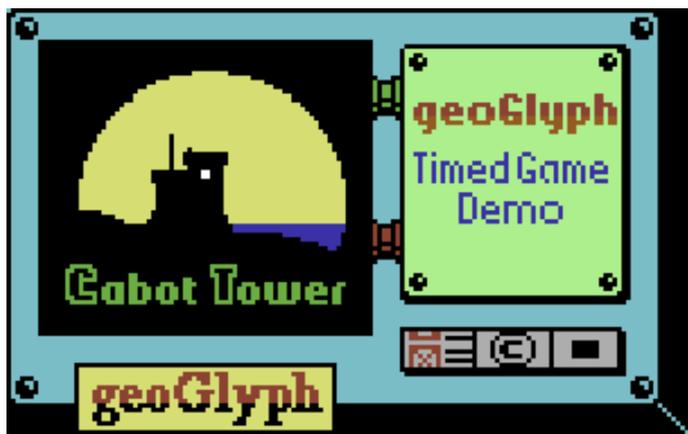
never did that part to this day. What I did do is change in that one session from the computer phobic, to tolerating and then wanting more. Now today a Commodore fanatic. Sure I can say it is because of the greatness of the Commodore system. But no that isn't the truth of how I changed. Only why I still use the Commodore PC. That book is what created the change.

Now it may be only my own mind that feels this way. But it is my theory that the users guide was made for the father to read, and not the kids. I have this image in my mind. Where Dad has been badgered like only kids can do to a parent. Finally buying the 64. Taking it home, hooking it up on a coffee table to the T.V. Just to make the kids happy. Then to understand the thing. So he could tell the kids what to do and not to do. he went over the manual. I have that feeling because of the way the manual reads to me. Writing style and the presentation of the contents. Maybe it is just me, or it was intentional by CBM or it is just an accident that it happened that way. But for me that manual was what turned me from scared to death to fanatical devotee.

Now I also use a Linux. Know many people that use other PC platforms. They don't have the relationship that I have to this Commodore. That is to their other computer platforms. I see them or hear about them, going online to do e-mail, play games, watch TV. get the news, listen to a radio station, and all of those other things. I have even heard about a parent using an instant messaging thing to let the rest of the family know it was dinner time. Having like 4 computers set up for the entire family. Thinking about that and how we were media blasted about computers controlling us. Well I guess for non C= users that tag line I saw long ago is true. "The Computer Wars are over. The Computers won!" We programme the C=, the other platforms seem to programme us. Guess for many what we feared as kids has become a reality. We are the servants of the computers, they have taken over. Except for us C= users. Oh wait a moment. I spend 5 or more hours a day working on writing stuff with my Commodore. Guess I was taken over as well, but at least by the friendly PC (VBG)



geoGlyph now available by Bruce Thomas



I've never met fellow Canadian Sean Huxter in person but I have a Love/Hate relationship with the man's work.

I Love the fact that he has written some great software for GEOS.

I Hate the fact that his games are so good they take up a lot of my time.

I first learned about Sean through ggeoWorld Magazine back in 1988 when he won a Berkeley SoftWorks GEOS competition for his Comic Book 'The Runner' (<http://www.huxter.org/c64/geos/runner.htm>).

Over the years Sean also contributed to the GEOS gaming experience with a number of games including "Hazard!" which, according to my "enGEOyable Entertainment" feature article (<http://members.shaw.ca/cue64/cwgames.html>) in Commodore World #20

(<http://cmdrkey.com/cbm/cworld/back/issue20.html>) in 1997, was the only game that was automatically loaded into my RAM Expander when I booted GEOS.

Sean and I have corresponded a number of times about a variety of GEOS topics and I even provided him with missing copies of his Runner Comic several years ago when he couldn't locate his originals. He has moved on to other programming pursuits since the 80's but his announcement earlier this year that he was programming a new game for GEOS indicated he still has a soft spot for the old C-64.

I was very excited to hear about Sean's new game. Not only did he announce the game, he told everyone they could follow along with his Developer's Diary (<http://www.huxter.org/c64/geos/geoglyph/dev.htm>) as he created this new masterpiece. For anyone wanting to learn, or improve, their GEOS programming I highly recommend reading Sean's Diary as a means to discover the work that goes into the design and creation of what appears to be a small, simple, program.

When the time came for testing the game I quickly put my name forward to Sean as a Beta Tester.

I found a few issues and reported back to Sean. He soon sent out a new version after squashing the bugs that the Beta Test crew had found. No errors were reported in the second version so he put together his final release version, added a bit more sound, and announced a special feature I'll mention in a bit.

The Desk Accessory (D.A.) runs as designed on GEOS 64 or 128. I mostly use Wheels on both my systems but that isn't a problem as the game runs fine under Wheels. If you have a CMD SuperCPU (or most any other Accelerator I would guess) you need to switch to 1 Mhz mode to be able to enjoy the animations and sound in the game. Also, since it uses colour it only runs in 40 column mode under GEOS/Wheels 128 - this means you can't play it from geoWrite 128 or other 80 column programs.

As with all of Sean's software and art for the Commodore you are able to download geoGlyph from his web site at:

<http://www.huxter.org/c64/c64.htm>

You can go directly to the geoGlyph page at:

<http://www.huxter.org/geoglyph>

On the geoGlyph page you will find a link to download the D64 image and also instructions for the game. Since geoGlyph is a D.A. there is no room to include instructions in the file but gameplay is fairly straightforward after you read the web page.

So, what is the special feature that Sean announced? Well, it takes a bit of effort on your part.

Sean has gone down a similar road before. With geoComix he created a program that users could use as a framework for their own graphic stories. To the best of my knowledge nobody else ever made their own geoComix version. Sean is going to help this time.

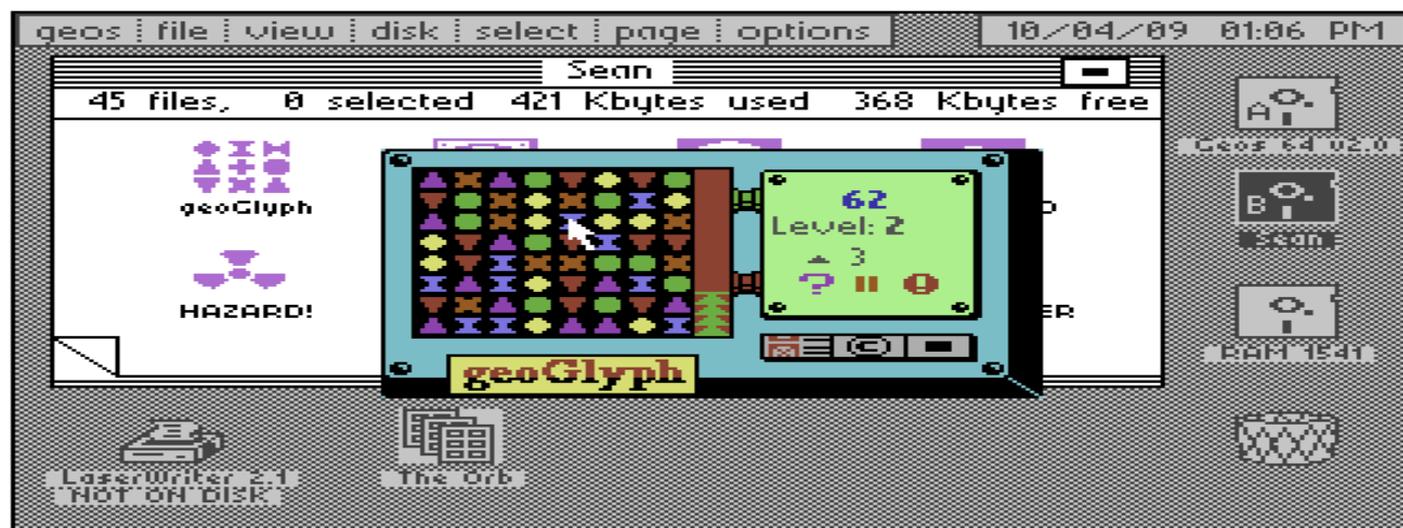
If you design your own glyphs and send the geoPaint file to Sean he will create your very own personalized version of geoGlyph and send it back to you. Your own GEOS game for a little effort and \$20. Read all about this at:

<http://www.huxter.org/c64/geos/geoglyph/geoglyph-custom.htm>

This offer to create a custom version will not be around forever so act fast if you are interested. I've already sent my custom glyphs (based on GEOS program icons) to Sean and expect to be playing my own game soon.

While I am waiting for that to arrive I'll happily go back to playing the released version of geoGlyph, along with Hazard!, SuperMind, and geoMimic. And Hate how much time I'm wasting. :)

enGEOy!





COMMODORE COMPUTER CLUB UK. MEMBERSHIP

<http://commodorecomputerclub.co.uk/membership.php>

My personal details

Name
 Address
 Postcode
 Email address
 Forum name (if registered)

I wish to be a member for

6 months* - £3 1 year* - £5 Life member - £30

* Membership fees for 6 months or 1 year will be back-dated to the beginning of the month that the membership application has been made and relevant fee has been cleared into our account. This can be paid either by personal cheque, postal order or PayPal. Membership fees are currently £3 for six months, £5 per year or £30 for life membership.

Please tick your interests from the following

Gaming
 Tech/scene demos
 GEOS JOS/WINGS
 BASIC programming Machine language
 Collecting Archiving/preservation
 Other applications
 Specify other application

Please tick if you use any of the following peripherals

Datasette
 1541 compatible drive
 1581 compatible drive
 CMD FD2000/4000
 CMD HD or RAMLink
 1351 mouse/compatible
 Commodore REU Other RAM expansion
 SuperCPU 64/128 Other accelerator
 MMC/Retro Replay
 SwiftLINK/Turbo232
 RR-Net or FB-Net Other networking device
 1541Ultimate/+
 Action Replay
 Expert Cartridge
 Other cartridge upgrade
 JiffyDOS Other speed loader
 Commodore VDU Other hardware
 Hardware not above

Please tick which computers you own

CBM/PET 40 columns
 CBM/PET 80 columns
 VIC 20 C64/64c
 C64GS SX-64
 C16/116 Plus/4
 C128/C128D C64DTV
 Other Commodore 8-bit
 Other Commodore 16-bit
 Specify other computer

I declare that I, the named applicant above, have read and understood the CCC (UK) rules and regulations, and agree to abide by them fully and co-operatively. I understand that I am joining this club on a personal level, and not as a representative of any group, developer, publisher or vendor that I belong to.

COMMODORE COMPUTER CLUB (UK) RULES AND REGULATIONS

http://commodorecomputerclub.co.uk/view.php?art=ccc_rules&loc=documents

These rules were agreed on Saturday 26th July 2008 at our first meeting held at Blackburn, Lancashire. They cover all rules of the running of the Commodore Computer Club (UK), herein referred to as 'the club', and also regarding complaints made to the club, and membership of the club.

(1) Membership subscriptions, raising funds and re-selling items.

(a) All members will pay a membership fee as follows: £3 for six months, £5 per year and life membership at £30. This fee will entitle the holder to free entry to the meetings, and special limited areas of the website, such as private forums and exclusive downloads, should we get anything exclusive to download. Membership will always be back-dated to the start of the month in which the member took out the subscription, so that every-one joining in the month of April for one year will see their membership expire on the 31st of March the following year.

(b) We should have a 'Commodore Computer Club Shop', which will stock all of the latest hardware mods and sods for Commodore computers where possible. To stop the 'Maurice Randall' effect, in which the club will have to repay people for not receiving their goods because they haven't been delivered but have been paid for, items will only be on sale if they are in stock.

(c) There will be two prices, one for members (cost of item + postage and packing + 10%), and one for none members (cost + postage and packing + 20%).

(d) Any members that do work for the club, organising events, donating items for auction, coding, or are otherwise active, with exception to posting on forums and turning up to meetings, will be considered for free membership and/or lifetime membership on merit based only on work they have done for the club. In certain instances, will include what they have contributed overall to Commodore computing or gaming during their life-time, should any 'Commodore legends' show sufficient interest to join the club.

(2) Events, software and other developments.

(a) Any money that is raised by the club should be used primarily for setting up events, or bolting onto other events as appropriate. This is to go towards, or cover costs of van hire, hotels, and food and drink, so the person or people who are willing to travelling to these events, man stalls and generally promote the club and its work are not be out of pocket as far as possible.

(b) Profits made from items sold at events should contribute to cover the costs of attending, or hosting, and/or expenses accrued during the event. This will not include monies raised from membership subscriptions paid for during the event.

(c) The club should also seek to raise money for the purpose of developing hardware and/or software that will benefit Commodore users in the UK and world-wide, and such items could therefore be sold through the club Shop.

(d) Payments to developers who are commissioned to work on behalf of the club should not be made in advanced or up front unless otherwise agreed by the treasurer and chair-person, and any other two members. This should be openly discussed with all members either in private members areas of the site, or at an organised meeting as appropriate.

(e) Hardware that is commissioned on behalf of the club which reaches production should be sold at a small profit, and monies raised to put back into the clubs funds.

(f) If it is agreed that the club should commission entertainment software, the productions should be available to download for free from the site for members only. Real-media versions should also be sold through the shop with non-members able to buy copies, though at a higher price than members.

(g) Any software commissioned by the club will either be purchased outright, paying the programmer an agreed fee on completion, or paying a lesser fee and splitting the profits at an agreed rate. This should be discussed on a case-by-case basis. The chair-person and treasurer, and two other members, must agree which method should be implemented.

(3) Meetings and monies.

(a) The club should hold an annual general meeting in which members have a say in its running, and are able to make suggestions and table official club business for the year ahead. Membership subscriptions should be reviewed at the annual general meeting, and any price increases must be agreed by the chair-person, treasurer and at least two other

members.

(b) There should be an annual audit of the clubs finances, with a news-letter at least every three months. The audit should be published before the annual general meeting, and this and the news-letter should be available to current members online in the private member areas. Former members may request this information, which will be granted on a case-by-case basis.

(c) Members will be able to attend any events that organised and run by the club for free when ever possible, whilst non-members will pay a small signing in fee of at least £2.50. With agreement with other event organisers, and at events that the club is attending in an official capacity, we will work towards getting members a discounted entry fee.

(d) All monies raised will go back into club funds.

(4) End of line.

(a) If it is apparent that the club is not running within its means to the extent that it is likely to fold, or that legal action against it will lead to the club being dissolved, all club assets should be sold or auctioned off, the monies raised pooled and members will be refunded their current subscriptions based on the length of time they have been members. The longest-serving paying members will be refunded first as appropriate, either partially or fully depending on the financial circumstances at the time. The newer members will be dealt with last.

(b) Personal donations to the club's funds can never be fully refunded, and are not guaranteed to be paid back at all depending on the circumstances.

Club complaints procedure:

Phase 1: Where a complaint is made against the club, or one of the club members, there should initially be a private apology between the club or individual and the plaintiff. This apology should be for 'any undue harm or upset caused', and will not amount to an admission of guilt or a retraction in any way. The club will not be able to force any of its members to make this initial apology except in the instance that the individual has clearly and admittedly worked on the clubs behalf in the matter specifically relating to the complaint that has been lodged.

Phase 2: The matter should then be investigated to establish the facts. If it is deemed that an individual club member has not been acting on the clubs behalf with regards to the specifics of the complaint, then this becomes a personal matter between the two parties. The club should therefore stop any further investigations or involvement in the matter.

Phase 3: If the complaint lacks any real evidence, or it is felt that the findings are not conclusive, then the matter should be closed. Neither the club, nor any of its members, should therefore discuss the matter publicly. All findings should be reported to the plaintiff, and the matter should be considered closed from the club's point of view.

Phase 4: Where a complaint is upheld, a public apology and/or retraction should be published through the official website, and in the newsletter. The club should also give the plaintiff the opportunity to give his or her point of view through the website and/or newsletter as appropriate. In this instance, the case will be considered closed from the club's point of view unless the plaintiff wants to take the matter further through due legal process.

Emergency phase: If at any point during this process the plaintiff feels aggrieved to the extent that he or she instructs a solicitor to take the matter up against the club or club members who have clearly being acting on behalf of the club in this instance, the club should then consider its legal position on the matter, and a meeting should be set up with the principle members of the club within two weeks of receiving legal notice to discuss the matter, and what to do next. Obviously, one would hope that any complaint would ever get to this stage.

Membership:

People who join the club will have a personal membership to it. They may not join the club as a company, publisher or software distributor or hardware vendor.

Newsletter and reviews:

The Commodore Computer Club (UK) is an independent user group which will review and stock all appropriate wares. We will do so on merit only, and invite all members to have their say about any literature published through the newsletter or any reviews written on behalf of the club. We will invite hardware and software vendors and publishers to have their say on reviews written, and we will publish their comments through the newsletter.

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***** COMMODORE 64 BASIC V2 *****  
64K RAM SYSTEM 38911 BASIC BYTES FREE  
READY.
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Commodore Free Magazine Issue 35 Dedicated in the memory of LORD RONIN

December 2009

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Submissions

Articles are always wanted for the magazine. Contact us for details .We can't pay you for your efforts but you are safe in the knowledge that you have passed on details that will interest other Commodore Enthusiasts.

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