

Commodore Free

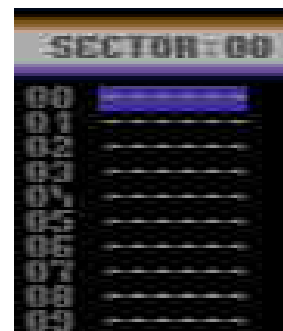
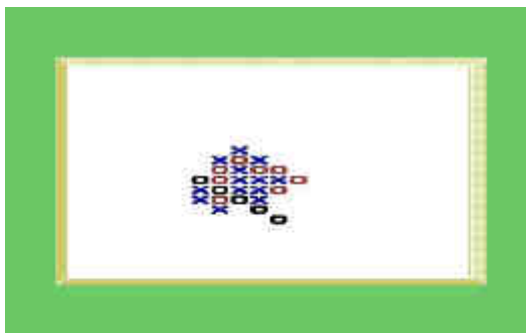
Issue 21 JULY 2008

www.commodorefree.com

Free to download magazine
Dedicated to Commodore Computers

Available as Text, Html, PDF, SEQ and Commodore 64 D64 disk image

commodore computer club





EDITOR

Hello

Well what a month recently I was interviewed for Meeting users through the mail MUTT a paper publication posted to Commodore users who do not or cannot get an Internet connection, I was surprised the magazine is still going but I guess there is still strong support for Commodore machines.

The Commodore Computer club U.k. Had its first official meeting, read a little more in this issue of the magazine about what was archived on the event, it was disappointing only 3 people attended but it is the first event so I suspect more will attend at the next meeting. If you haven't already done so I suggest you head for www.commodorecomputerclub.co.uk and see how to become a member.

Its now clear that producing a magazine every month is difficult and leaves me with little time so I have decided to change things a little, the magazine will aim for around 16 pages rather than the usual 30 if its any bigger hey that's a bonus. With more help and people submitting articles of course I could keep the usual 30 pages but without help it will be around 16 as stated earlier.

So there you are enjoy
Nigel

And yes because I don't have a handle and cant think of one I am using my yahoo email address nigelp2k I tried nigel and there were hundreds and this was the closest I could get so nigelp2k fairly rubbish I know

HOW CAN I HELP COMMODORE FREE

Ok the best way to help would be "write something about Commodore" (yes for the observant I spelled the company correctly this time) _grin seriously though articles are always welcome,

WHAT ARTICLES DO YOU NEED

Well they vary contact me if you have an idea but I am looking for
Tutorials – (beginners and Expert)
Experiences with Commodore
Why I love Commodore machines
Interviews – maybe you have access to a power user

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READERS COMMENTS

-- On Wed, 2/7/08,
Shaun Bebbington wrote:

From: Shaun Bebbington
Subject: SuperCPU replacement.
To: Commodore Free
Date: Wednesday, 2 July, 2008, 11:57 PM

Hi Nigel,

I read in Commodore Free that I suggested that the 1541 Ultimate Plus would be a good SuperCPU replacement.

I never actually said this; what I suggested was that with a battery back-up function (which I think is intended on a future revision), the device could be a RAMLink replacement at some point in the future. In emulation, someone has already hacked Wheels to recognize a 17xx Ram Expansion Unit up to 8 megabytes, and theoretically up to 16Mb. Okay, so this hasn't been done in the real world as far as I know, but the 1541U+ as far as I can gather basically has the same function as a 1750 REU (for instance), but up to 16Mb. A RAMLink is 16Mb, so all that is needed is either a power source to keep the RAM in a solid state, and some sort of DOS interface to read the contents of the RAM (you'll note that the RAMLink can do this already as you can plug a 1750 REU or clone into the RAMPort, which can be either 'normal' access via JiffyDOS, or 'direct' access as it was intended to be used, which is only possible because the memory is kept constant as long as it remains plugged into the RAMPort and the RAMLink isn't unplugged).

Even without accessing the RAM like a drive, you can skip RAMDisk formatting' on Wheels, and have a RAM disk on your desktop. This keeps the memory on even after a soft reset, but obviously switching the computer off will clear it. So, keeping power to the 1541U+ even after switching off the computer should also keep the memory in tact meaning that you can have all of your GEOS apps in RAM for super-fast access. The 1541U+ is going to be somekick-ass device, that is for sure!

As for a SuperCPU clone... well, who knows what the future will hold ;-)

Sorry for the rant!

Regards,
Shaun.

COMMODORE FREE
Gulps and blushes
Sorry friend, I must have been half listening, ok so please read the above Comments as an amendment to the last pages of issue 20

I am hoping most of you will have downloaded the amended version of the magazine with the Corrected text.

Dewey Wrote

From: Dewey
Subject: Loadstar
To: Commodore Free

Sir:
Sorry to trouble you. In your issue #16, under news, there was an entry concerning loadstar. I was interested in purchasing some loadstars but cannot bring up the website. Does anyone know if this website is no longer active or if Dave Moorman is out of business? Sorry I don't do the forums so I don't know what is happening with C64 stuff. Thank you for your informative Commodore Free magazine.

Dewey

COMMODORE FREE

Hello Dewey
No need to be so formal we are all friends here, anyway I believe loadstar back issues are available on cd rom from the following location

[http://shop.vcsweb.com/
index.php?main_page=index&cPath=24](http://shop.vcsweb.com/index.php?main_page=index&cPath=24)

Here is a link direct to complete loadstar all back issues on cd rom

[http://shop.vcsweb.com/
index.php?main_page=product_info&cPath=24_28&products_id=173](http://shop.vcsweb.com/index.php?main_page=product_info&cPath=24_28&products_id=173)

I also passed you details onto David from loadstar so he may contact you directly

Thanks
Commodore Free

NEWS

Back in Time Live and C64Audio news!

Hi there, fans of all things C64-music-related!

Lots of news this time, some of it... delayed :)

- * Back in Time Live visits Stockholm
- * Remix 64 Vol 3 - Syntax Era
- * Reyn Ouwehand is awesome
- * Forthcoming stuff

**** BACK IN TIME LIVE STOCKHOLM : SEP 13 2008 **

The most urgent news is the announcement of Back in Time Live Stockholm for the 13th September 2008, run this time by C64.com supremo Andreas Wallstrom and Scene-Sat head honcho and diskmaster to the scene John "Ziphoïd" Carehag.

Performers include: Jeroen Tel, Reyn Ouwehand, Romeo Knight, Disco Danceaway and Andreas Wallstrom. If you've heard these guys, you KNOW that they will knock your socks off. If you haven't: well, they'll knock your SOCKS off!

Other guests include legendary C64 composer Fred Gray, loads of remixers and radio personalities, famed cracker Mr. Z/Triad, and members from scene groups such as Pretzel Logic, Fairlight, Light, Antic, Booze Design, F4CG, and Megastyle.

As usual, all you need to bring is your sense of fun, the ability to shout "Kok!", and your thirst!

The extremely well-designed website is where you can buy tickets is <http://www.backintimelive.com>. Now, go!!

**** NEW CD! REMIX 64 - SYNTAX ERA ****

Samples are available at: <http://www.c64audio.com/productInfo.php?cat=R64SE>

Imagine C64 songs done to sound exactly like tracks or artists from the 1980s. "It's been done five years ago!", I hear you say!

Well, the third volume of Remix 64 returns to its roots, with a stunning and goosepimply selection of tracks which brilliantly evoke the feel of particular tracks such as Two Tribes, 19, Too Shy and Broken Wings, but don't lose the essential SID tune beneath.

Featuring remixers such as Romeo Knight, LMan, Thomas Detert, Makke, Binster and Tonka.

The CD also features a bonus track with SID and the gorgeous Elisa Zoot doing Vince Clark's classic "Only You", as a prelude to the forthcoming releases from Monotron.

**** REMINDER: Reyn Ouwehand is AMAZING ****
<http://www.c64audio.com/productInfo.php?cat=PP004>

Reyn Ouwehand last year produced one of the most amazing remix CDs my ear has ever heard, with virtuoso performances of some of the best and cutest themes around: such as Zeppelin, Hunchback II, Mutants, Great Giana Sisters, and loads more.

If you're a fan of the old school themes like me, check out the samples!

**** Forthcoming albums 1: New Atari ST album ****

In the next few weeks, we'll be releasing a new Atari ST Remix CD by Tobias Jansson focussed almost exclusively

on the work of Jochen Hippel: it's another labour of love, and will be available in digital format only (FLAC/HQ MP3).

**** Forthcoming albums 2: 8BW Confidential 2 ****

Seth "8-Bit Weapon" Sternberger has finally finished his C64 covers/remix album, and it will be here shortly, both as a digital album and as a limited edition 5.25" disk edition :)

**** Forthcoming albums 3: BASIC ****

Tonka, in his new guise as "Monotron" is working overtime with his lovely vocalist Elisa Zoot to bring you the best C64 + vocal sound ever released (and yes, that includes the awesome Thermostatic).

I've hopefully got even bigger news in my next newsletter... two in one year? Yes, it might just happen!
See you hopefully at Back in Time Live, whatever happens!

Oh, and please let me know if you don't want to receive the occasional newsletter like this, or if you get two, let me know the email address NOT to send to!

And... if you've ever had any problems with the shop: like stuff not being delivered, please let me know as well.

Best wishes, and thanks for supporting us over the years: it's now 11 years since the original planned release date of Back in Time 1. Scary!!

Cya :)
Chris Abbott
C64Audio.com

English SCACOM issue 3

The English version of SCACOM magazine is available to download from www.scacom.de.vu

XeO3 Test Demo

Demo version of XeO3 has been released and available from the link below

http://www.xeo3.org/prg/xeo3_test_demo.zip

New Version: of D64Lister

The most important changes since 18.01.07 are:

- * Tried to make it compatible to Vista
- * Added more than 144 Files mode
- * Added PrologicDos Support
- * Added 40 Tracks Autodetect Mode
- * Added Window Resize in Extended OpenDialog
- * Added Additional Special locations in Extended OpenDialog InitialDir
- * Changed Extended OpenDialog Special Dir handling on Show
- * Changed Custom Header generation (update your settings)
- * Changed BAMViewer activation and Image Reload handling
- * Changed Keyboard Zoom in C64Screen and PhotoAlbum-Viewer to MainKeyboard, too
- * Some codereview and optimizations
- * Use UPX 3.03 for Exe compressing <http://www.hardworks.de/d64lister/>

NEWS

From: Jim

Subject: uIEC update (pricing info)
apologize for the delay, but I know people wanted pricing, and I was busy writing code. However, since I am hoping to sell units at the C4 EXPO coming up this weekend, I had put pricing off for too long.

Thus, here goes:
uIEC will be offered in 2 flavors:

The base uIEC offering will include a CompactFlash slot and an IDE drive header. It also includes an expansion port (as yet unused for anything, but it's configured to match the pinout of parallel driver speeders like Professional DOS/RapiDOS Pro.) and a future option for external drive RAM. It includes an onboard IEC connector.

The uIEC/CF is a slimmed-down version of the above unit that offers only the CF connector and drive LEDs. No IDE, expansion port, or external RAM. It is primarily targeted for those who want to mount the uIEC in their C64/DTV/C128/VIC/Plus-4/etc.

Both support all CBM IEC based computers (including the VIC-20 with it's higher drive access speeds), include Jiffy-DOS support, support D64s, P00/R00/S00/U00 files, will operate with both FAT16 and FAT32 filesystems, handle multiple FAT partitions, support subdirectories, and new features appears every week or so.

Labor to solder for the first batch of units is nontrivial, but I wanted to offer an attractive price. Thus, here's the price list:

uIEC : \$75.00
uIEC/CF: \$50.00

US Shipping is +4.60, please check for overseas pricing.

I expect the prices to hold steady over time(production board run will bring the board cost down for the next run, but I'll switch to an outsourced builder to solder up the units, no way am I soldering hundreds of these little CF connectors)

I'd appreciate getting an idea of interest. I hope to have units for officially offer for sale at the C4EXPO this weekend (all depends on my soldering skills). If you've previously requested one, please remind me via email. I'll make sure all previous requestors get at least one unit. Mainly, I just want to unload all of the current boards and recoup my investment before I start running a new batch.

If you're looking for a lower cost option, I'm not sure I can help, but I am planning to run a batch of sd2iec boards in the near future (same firmware, but uses MMC/SD cards, not CF cards). They might have a slightly lower cost.

As for other news, with the source code commit tonight, uIEC/sd2iec now supports Relative files. It will support .REL files (first byte is record length) or R00 files (record length is in header, as implemented by VICE and PC64, among others). Support should be considered beta at this point. D64 REL file support will follow shortly.

Jim

http://groups.google.com/group/comp.sys.cbml/browse_thread/thread/fd747bd45d83e690?hl=en

The Story of Commodore: A Company on the Edge (Paperback) by Brian Bagnall (Author)

It seems this book is now going to be revised with new interviews and released later in the year

Product details
Paperback: 548 pages
Publisher: Variant Press; 2Rev Ed edition (30 Sep 2007)
Language English
ISBN-10: 0973864931
ISBN-13: 978-0973864939

http://www.amazon.co.uk/Story-Commodore-CompanyEdge/dp/0973864931/ref=sr_1_1?ie=UTF8&s=books&qid=1214897454&sr=8-1

Commodore Computer Club

www.commodorecomputerclub.co.uk

There is a UK user group currently being set up at www.commodorecomputerclub.co.uk

The aim is to have regular meetings to discuss current activities and within the Commodore world, and have workshops (GEOS, Coding etc...) and also maybe hold an annual coding competition. International members are welcome. The first meeting is scheduled for 26th July 2008, and is being hosted by Commodore Free's editor Nigel Parker. Formal membership is expected to start from August 2008

Commodore BBS listing website

I have launched a new site that includes a commodore BBS listing. The listing is user generated and edited. Each listing has screenshots and connection info. Please stop by and list your BBS or come and find the address or your favorite BBS. My hope is that this will help make the commodore BBS scene more active.

Please stop by at:

<http://imageoutpost.hobby-site.com>

1541U Firmware V1.1

Written by Gideon

Friday, 18 July 2008 19:46

Upgrade your firmware now to V1.1!

In order to upgrade your 1541 Ultimate or 1541 Ultimate Plus to version 1.1, download the following zip file:

1541 Ultimate V1.1 Firmware Download (PAL ONLY)

Installation instructions:

- 1) Unzip the zip file into the ROOT of an SD-card, of which you have made sure that the 1541 Ultimate can read it.
- 2) Place the SD-card in the 1541U, and make sure the 1541U is correctly inserted in a C64/C128 expansion slot.
- 3) Turn on the C-64 and watch the screen output.

Until the NTSC version has been officially released, NTSC users can put their NTSC cartridge binaries in the "update1" directory on the SD card. Just make sure that the files you put there have the same size and are in the binary format. Just renaming a .crt file to .bin doesn't work; it needs to be correctly converted. As long as the filenames are the same as they were when you unzipped the firmware package, you can't go wrong. Faulty cartridge images won't brick your 1541 ultimate.

What has been fixed?

The opcode \$4b has been fixed in the 6502 emulation; which enables the Krill loader and maybe some others.
The AR loader bug has been fixed! It turned out to be a bug in the AR emulation itself, rather than in the drive emulation!
Current drive of the IEC pins has been increased from 8 mA to 16 mA. This might help with 1541-II issues.
REU emulation has been greatly improved, thanks to the help of Womo!!
Some minors, like the jump of the blue bar into the scroller..
CD:/ of the software IEC mode
What has been added?

Retro Replay! (after a lot of requests from users!)
Super Snapshot V5 emulation, with 32K ram (for our American and Canadese friends!)
Swap option for reset / freeze buttons
Hide option for files that start with '.'
Enjoy, and please let me know if you encounter any problems flashing the new firmware.



WiNGS

The WiNGs website is still up. It's been moved to a new server, and has a new address.

This is obviously not an ideal address. If anyone wants to pay for a better domain, I'd gladly point it at the new server! :)

<http://nacu.ca/sites/wings/>

For some stupid reason DynDNS will not allow me to use wings.webhop.org anymore, even though no one else is using it. The status of WiNGs is bit problematic. For one, Jolz (the

chief architect, developer, etc.) hasn't been in the scene for a few years. Which leaves the project basically at a standstill. I never worked on the OS itself. If I may go out on a tangent, I think the only low level thing I ever did was upgrade the digi.driv to support stereo output on the DigiMax. But even that was admittedly a hack job. The ideal would be to write, in assembly, a proper multi channel mixer, with an abstracted system for output. This would allow for multiple applications to produce sound simultaneously, and then the output would be routed to whatever device the user happens to have on his system. The GUI remains largely incomplete. And I don't have the time or, more importantly, the technical expertise, to write what needs to be written. Unfortunately. :(

The other important problem is the lack of availability of the hardware required to run WiNGs as it is. The SuperCPU is, for all intents and purposes, no longer available. This makes it pretty darn hard to convince people to try WiNGs. The first thing they ask when they find out it needs a SuperCPU is, "Where can I get one of those?" And the answer is, "nowhere." So, that brings their potential exploration of WiNGs to a grinding halt. Even the IDE64, which, in my opinion was the ideal way to use WiNGs, is for all intents and purposes not available. I know they have been working for 2 or 3 years on a new version. But meanwhile, real people, with actual commodore 64s sitting on their desks are waiting around, and there are no IDE64s available for them to buy. This is not the IDE64 team's fault, from what I understand one of the main chips the V3 used is no longer available. Otherwise, I'm sure they would have continued to produce and sell the Version 3 model at the same time as working on the Version 4 model.

Greg.

NetRacer

<http://home.ica.net/~leifb/commodore/racer/>

First ever Commodore lan party?

<http://games.slashdot.org/article.pl?sid=08/07/06/2114221&from=rss>

Cincinnati Commodore Computer Club 2008 held what most are calling the First Commodore 64 Lan party with Netracer



The first multiplayer Internet game for the Commodore 64!z

Overview:

NetRacer is a simple racing game written to demonstrate the potential of multiplayer games over the Internet with the Commodore 64. It builds on our earlier two-player effort Artillery Duel with realtime gameplay and the addition of a server.

The game was unveiled at the Cincinnati Commodore Computer Club Expo 2008. Check out the Powerpoint presentation about the project and pictures of the event and setup.

Features:

- Eight simultaneous players over the Internet or LAN
- Scrolling graphics
- Sound effects
- Joystick control (Port 2)

Technical Details:

- UDP-based communication (don't forget to forward port 3000 in your router/firewall to your C64)
- Written in DASM assembler
- Uses netlib64, which in turn supports the RR-Net, FB-Net, or ETH64 cartridges.
- Server is written in Java 5.

Download:

NetRacer 1.0 from Commodore Scene Database.

<http://noname.c64.org/csdb/release/?id=67873>

Please note that the VICE emulator isn't yet supported, as its RR-Net emulation is a bit buggy.

Source code for the client and server are available, contact Leif for a copy.

Links:

- Discuss the game's development on the C64 Network Game Development forum. <http://jledger.proboards19.com/index.cgi?board=c64ngd>
- Look for opponents on the C64friends IRC chat <http://www.c64friends.com/>
- or the #netracer channel on NewNet. <http://www.newnet.net/newnewnet/index.php>
- Summary of Ethernet on the Commodore 64. <http://home.ica.net/~leifb/commodore/ethernet.html>

NETRACER

TEXT taken from the Powerpoint presentation from the Cincinnati Commodore Computer Club Expo 2008.

NETRACER

A networked multiplayer game for the Commodore 64

Leif Bloomquist

Cincinnati Commodore Computer Club Expo 2008

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THE GOAL

Create a real-time multiplayer action game for the Commodore 64 with network card
Build on network code written for Artillery Duel Network to add multiplayer capability

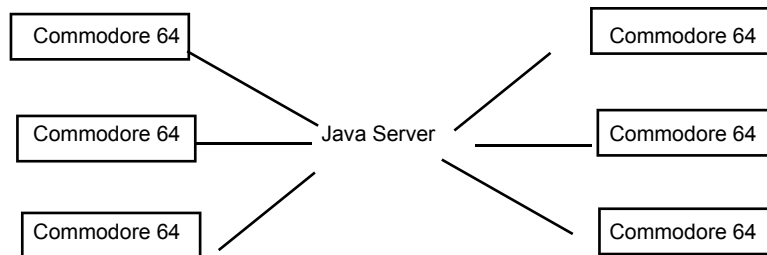
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GAMEPLAY

Simple race-around-the-track game against other players
Points for distance traveled and laps completed
Car takes damage and you slow down if you collide with the track edge or other players
Complete laps to fix damage

=====

Client server Architecture



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INTERNET PROTOCOLS

Transport Control Protocol (TCP)
Guaranteed delivery of data + packet ordering
Not implemented in ML yet, high overhead
A lot of work for a poor 1Mhz computer

User Datagram Protocol (UDP)
Much simpler protocol than TCP
No guarantees – you do all the confirmation
Working implementations in 6502 ML
Used extensively in PC Internet gaming

=====

SIMPLYFYING ASSUMPTIONS

Minimal and static game “world”
Lost packets are ignored – subsequent packets supercede old data anyway
No ACKing required
Maximum 8 players per server instance to keep to max. 8 sprites on screen
No theoretical limit on # players otherwise

=====

TECHNICAL CHALLENGES

Keeping everything synchronized
Mitigated by providing the illusion of a consistent game world (“good enough”)
Raster time
Solved by skipping network update for one frame when screen is scrolled

Internet Lag

www.commodorefree.com

Could be mitigated by transmitting player speed and direction to each client, which can interpolate other players' positions in between updates

=====

SERVER

Written in Java 5
Platform independent
Trivial UDP networking

Receives and maintains all player's positions on the track

Updates all clients with information on other players that are currently visible

=====

SERVER THREADS

Receiver Thread
Receives data from all clients
Updates internal representation of game world

Updater Thread
Maintains list of players (watches for drop-outs)
Sends packet to all active players 20 times per second with details of what sprites to display

=====

CLIENT

Written in 6502 machine language using the DASM cross-assembler

Controls local player's position and displays sprites representing other players based on updates from server

Tracks damage and score

Transmits player stats (location, speed, etc.) to server 60 times per second

=====

FUTURE PLANS AND IDEAS

Enhance the game to add 'combat' elements (weapons, other hazards)?

Build on this experience to make a full-blown MMORPG on the C64 similar to Ultima?
<Your idea here!>

=====

WHERE TO GET THE GAME

Grab a copy on disk from me today

Download latest version from www.petscii.com forums (Network Game Development section)

Look for opponents on the #c64friends IRC channel (www.c64friends.com)

=====

CREDITS

Leif Bloomquist – Game concept and framework
Robin Harbron and Lasse Öörni – Graphics/display code

Oliver VieBrooks – Network library code

Raymond Lejuez – Graphics

Alexander Rotzsch - Music

Ian Colquhoun – Server hosting

Robin Harbron, Dave McMurtrie, Dave Hartman – Playtesting

Commodore Free = information taken from powerpoint slides used with Permission of Leif Bloomquist

Interview with C64 Endings

www.c64endings.co.uk

<http://www.atfreeforum.com/c64endings/>

C64 Endings

Commodore Free.

Please introduce yourself to our readers

Vincenzo Mainolfi.

My name is Vincenzo Mainolfi (please call me Vinny) and I love my Commodore 64.

CF. How did you hear about Commodore and what were your first experiences?

VM. Back in 1982 my Mum kindly purchased a second hand TRS-80 (Tandy Radio Shack). It was my first experience of home computing and I spent all my time learning to program in BASIC. I produced quite a few games and drawing utilities, and looking back at what software that was available at the time, I should have sent my stuff to a publisher, but unfortunately I was only 11 and didn't really understand the industry.

My next computer was to be a TANDY COLOR 2, but the Manager of our local Tandy store suggested that I purchased a Commodore 64 as they were going to be a popular machine (a poor sales man, but a honest person). So in 1984 I purchased my first (of many) Commodore 64 for £299 - without a datasette or disk drive!

From the moment I got my Commodore 64 out of its box, I was in love. Because I didn't have a tapedeck or disk drive, I spent the first few months learning Commodore BASIC and produced quite a few funky, little games. Unfortunately, I couldn't save any of them and would leave my machine on for days so that I wouldn't loose my work.

It wasn't until months later that I finally purchased a datasette and that's really where my Commodore 64 world opened up

CF. Do you still use Commodore machines today, if so what do you use and why?

VM I have many retro computers and consoles, but my faves are my Commodore 64 and Amiga 1200. Unfortunately, I don't have the space to set up my Amiga 1200, but there will ALWAYS be space for my beloved C64 (with Action Replay cartridge), datasette and diskdrive.

I use my Commodore 64 for playing new games and demos, testing old stuff and converting files to PC.

CF. Commodore endings? Can you explain the motivation for the website?

VM I've always been fascinated with game endings – it's the pinnacle of every game. You buy a game to complete the challenge but sometimes you don't get your money's worth when you get stuck on a certain level. I want to see

the whole game and reach the ending, and I want everyone to benefit from my discovery. It probably all started with the ending to Thing on a Spring (Gremlin Graphics) and The Human Race (Mastertronic).

CF. When did the website start?

VM. Hmmmmm ... back in the early 90s I was producing 5.25" disks that contained game endings to different Commodore 64 games along with a menu system. Quite a few people wrote and commented on how great the idea was. In 1997, I started to plan out an idea for a Web site that will house the endings that I had already obtained, but I still needed to teach myself HTML.

It was either late 1997 or early 1998 that I placed my new site online. It was very popular and lots of fun.

Then, in 2002-2003, I asked my good friend, Frank Gasking, if he would look after my site whilst I took a break to prepare for the birth of my daughter. He did an amazing job but time also caught him up and he needed to spend more time on his own great C64 site, Games That Weren't.

The endings site disappeared for a while until Andrew Fisher (Merman) started to stir up some interest for the site to return. I felt it was time to bring the site back and so in 2006 I spent a few days designing a new face to the site and placed it online for all to see and enjoy.

CF. What was the first Commodore Ending game you put on the site?

VM. When the site first arrived in 1997, it was probably Commando (Elite), but when the site returned in 2006 – I remember this moment so well – it was Dalek Attack (Admiral), which is why the ending page looks light on comments.

CF. Is the website actively maintained?

VM. Are you joking me? I try to add a new ending every day and I also add new daily comments and info to our forum.
<http://www.atfreeforum.com/c64endings/>

CF. So these are the Endings of Commodore games are they just Commodore 64games?

VM Yes - they are just Commodore 64 game endings.

CF. What format are the endings in i.e. Storyboard or Video and why was this format selected?

All the endings are in storyboard format, which house screenshots, comments and a score rating for each ending. Each ending also comes with a .PRG file of the actual ending that you can play on any emulator or real Commodore 64.

CF. Do you use an emulator for the screen shots or are they taken from a real machine?

VM All screen shots are taken via the CCS64 emulator utilizing the ALT-F1 screen grab function.

CF. Ok hardware or emulator what do you prefer and why ?

VM I love both: hardware for a real fix, and emulator for a quick fix. I mainly use an emulator as it allows me to obtain endings quite quickly. I use a real Commodore 64 when I want to sit down and play an old game.

CF. Is your website a walk through or do you just show the ending, what else is shown on the site?

VM I just show the endings as there are quite a few sites out there that already house walkthroughs, long plays and solutions.

I also house endings that receive a 10/10 scoring, which I have called Gold Medals; a list of games that don't have endings; a list of wanted game endings, and finally a contacts/FAQ page.

CF. You list the No endings games supposedly that had an ending and didn't, do you think this was programmers running out of time and being pressured for a game release?

VM I think it could be a whole host of reasons why these games have no endings. We have to take each game as it comes and make a judgment as and when.

CF. Do you have a list of favourite endings?

VM

- 1 – Thing on a Spring (Gremlin Graphics)
- 2 – Hunter's Moon (Thalamus)
- 3 – Creatures 1 & 2 (Thalamus)
- 4 – Max Headroom (Quicksilva)
- 5 – Roland's Rat Race (Ocean)
- 6 – The Human Race (Mastertronic)
- 7 – Bee 52 (Codemasters)
- 8 – Way of the Exploding Fist (my April fools version)
- 9 – Escape from Arth
- 10 – Ghostbusters (Activision)

CF. And what is the worst ending you have seen?

VM Hmmmm ... there are quite a few crappy endings, but the worst has got to be Zaxxon by US Gold; you play the game for two levels and then it just says 'CONGRATULATIONS'. I was expecting so much more

CF. Do you plan an Amiga endings site or similar?

VM Nope – C64 all the way.

CF. Do you use any cheats to get to the game ends?

VM I'd say that 90% of the time I use a cheat. I am really crap at games and so I need some assistance. There are only a few games that I have actually completed without a cheat.

CF. If a game just gets faster and faster like "magic Carpets" how do you know there isn't an ending after a period of time?

VM Well, this is where the team members come into action: Neil and Brendan will play a game over and over; Inge (and me sometimes) will try and crack the game, and Frank and Matt are a mind of information. All together, we suss out whether there

is an ending or not. There's also comments from our viewers that come via the forum.

CF. Do you disassemble the games to look at the code?

VM I used to always do this even before playing a game (I'm a cheat at heart). Unfortunately, I don't get the time to do this anymore and I rely more and more on cracked versions of a game that houses a trainer. Recently, Inge has done a great job in cracking games.

CF. How many people are involved with the www.c64endings.co.uk team

VM It's mainly me who runs the site, but I have Frank Gasking, Matt Rogers, Brendan Phoenix and Neil Collins helping out with gathering new endings and keeping the forum fresh. Inge Pedersen is also a great help.

CF. How can our user help?

VM By logging on the site and viewing the endings, and then going to the forum and contributing comments. In other words: have fun with the site and forum <http://www.atfreeforum.com/c64endings/>

CF. Is there any question you would have liked to have been asked?

VM Not that I can think of

CF. Is it true you used to produce lame Commodore 64 demos and stuff under the guise of Hackersoft?

VM Erm ... yep. I produced quite a lot of music hacks, cheat programs, and loads of different graphic and sprite style demos. I have recently produced a new site to house my demos (www.hackersoft.co.uk). I've still got loads more stuff to add to the site.

CF. Would you like to comment on where Commodore went wrong?

VM What are you on about, man? They produced the Commodore 64 and Amiga. How is that wrong?

CF. Do you think Commodore 64 is the best games machine or is it rather the games that are created for a machine rather than the hardware

VM The Commodore 64 is a great machine with great games.

Keep up the good work.
Kind regards,
Vinny :-)

www.c64endings.co.uk

<http://www.atfreeforum.com/c64endings/>



NO ENDINGS! But you EXPECTED one!

www.c64endings.co.uk

Believe it or not, there are quite a few Commodore 64 games out there that DO NOT possess a game ending even though you expected them to have one! How many times have you read the game instructions which tell you that you have to 'reach the end' and eventually find that there is no 'end'?

To save you a lot of time and hassle, the C64endings Team have put together the following list of Commodore 64 games that have no ending (even though you expected one!)

- 1985 by Mastertronic.

Info provided in by Compound (on the LEMON 64 forum) on 27/04/07: the day after (after Level 8, the game makes you replay level 7 after which you're in an infernal loop - the instructions state there are 12 levels, so maybe it's a bug (a coder could perhaps take a look)

- AFTERMATH by ALTERNATIVE SOFT.

Game just ends after 10 levels.

- APB by DOMARK.

There are 9 crooks to capture during the game, but even if you catch all of them and they are in jail they just keep coming back. After level 99 the game loops.

- ATOMINO by PSYGNOSIS.

Sent in by Ivan Smolenski on 26/02/06: Loops after 999 levels.

- BIG MAC by MASTERTRONIC.

Sent in by C64endings Team Member, Brendan Phoenix on 05/12/07: Loops forever.

- BEACH BUGGY SIMULATOR by SILVERBIRD. Complete Round 8 and you go straight back to Round 1!!

- BEACH HEAD 2 by US GOLD.

Info provided in by Kobayashi (on the LEMON 64 forum) on 03/03/06: Nothing happens after the knife fight. The game just ends as if you have died!

- BIONIC GRANNY by MASTERTRONIC.

This game just gets faster and faster and is never-ending!

- BLADE RUNNER by CRL.

Sent in by Juan Manuel on 26/12/07: just starts over. I won the game a couple of times. The game is exactly the same, you have to chase the replicant through the street. The last replicant is the most difficult because he/she keeps running along the back wall, but everything else is the same. I'm sure there is no ending screen nor music. I don't know if you were "awarded" one short line in the same game screen for a couple of seconds before the game started over, but that was it.

- BLAGGER by ALLIGATA.

Sent in by Neil Collins on 29/06/07: the game just loops back to level one.

- BMX RACERS by MASTERTRONIC.

This game just gets faster and faster and is never-ending!

- BOOTY by FIREBIRD.

Sent in by David Craddock on 16/04/08: David sent in the ending, but once you collect the final key the game reverts right back to the start! No ending :(

- BOULDER DASH by FIRST STAR SOFTWARE. Sent in by Vathism on 21/01/06: The Boulderdash games are never-ending!

- CATABALL by ELITE.

Complete Level 8 and you are taken to Level 1, again!

- COBRA by OCEAN.

Sent in by Inge & Brendan (via the forum) on 09/05/08: Game just loops back to level one. Not as much as a well done !

- COMIC BAKERY by IMAGINE.

Sent in by Neil Collins on 20/05/08: Game keeps going up to level 99 - then back to 0.

- DEATHWISH III by GREMLIN GRAPHICS.

Info provided in by Brendan Phoenix 21/05/08: Been playing this for a while and can see no ending in site - had a look on the Lemon64 forum and the opinion is the same on there that this game does not have an ending.

- DIG DUG by ATARISOFT.

Sent in by Ivan Smolenski on 26/02/06: Loops after 99 levels.

- DRAGON'S LAIR 2 by SOFTWARE PROJECTS. Sent in by Robbo on 10/02/06: I played this game for months and months back when it came out. Eventually I beat the game using a poke for infinite lives which took an eon to type out - especially for eight year old like I was back then. Even with the cheat it took hours of play. My reward? The high score table. As far as I can recall, this had not one bit of an ending which was an injustice to such a superb and difficult title.

- DROPZONE by US Gold.

It may be an arcade game, but I feel that it still needs a game ending. Archer MacLean was kind enough to confirm to me that the game does NOT possess a game ending.

- ELEKTRA GLIDE by ENGLISH SOFTWARE.

Sent in by Neil Collins on 20/05/08: Just rolls on and on forever... I went around about 10 times... nothing !

- FORBIDDEN FOREST by Cosmi.

Info provided in by Kobayashi (on the LEMON 64 forum) on 03/03/06: Little dance as usual then goes back to level 1 but much harder.

- FOX FIGHTS BACK by ImageWorks.

Info provided in by Kobayashi (on the LEMON 64 forum) on 03/03/06: There's no end. At the end of each level it says "Good Hunting Level [level number] Cleared" Got to level 10 and thought it can't go any further, surely. When I finished that level it said "Good Hunting Level A cleared".

- GATEWAY TO APSHAI by EPYX.

Info provided in by Cybergoth (on the LEMON 64 forum) on 14/05/06: it keeps repeating level 8 once you get there.

- G.I. JOE by EPYX.

Info provided in by Cybergoth (on the LEMON 64 forum) on 14/05/06: after a while imprisoned badies just escape from prison, so it's not possible to beat them all.

Update from K-J-N on 14/05/06 (on the LEMON 64 forum): There is a fun reason for this. From this interview with Jeff Johannigman, programmer of the C64 version, at the Epyx Shrine:
Why is the game never ending?

"As for why the game has no end... Now THAT is an interesting point. When I first came to Epyx and they put me on the GI Joe project, they said "This is not a game. It's an ACTIVITY TOY." "Activity Toys" were Epyx president Michael Katz's idea (Katz came from the toy industry), to make products that were more open-ended, less goal oriented. I asked the other designers, and they all came to the same basic conclusion - "design a game, just don't have an ending."

- H.A.T.E. by Gremlin Graphics.

Info provided in by Ivan Smolenski on 15/07/06: The game loops from level one after the last level, without mentioning anything it could be the end.

- HYPERSPORTS by IMAGE.

I know it's an arcade sports simulation, but it could have had some kind of medal ceremony!

- IMHOTEP by ULTIMATE.

Info provided in by Mikey303 19/05/08: The game does not appear to have any ending and just loops back to the first level.

- INDIANA JONES & THE TEMPLE OF DOOM by US GOLD.

Info provided in by Brendan Phoenix 21/05/08: Final level plays for ever so you can rack up points - no ending. Played this myself and read up on some longplay comments on YouTube and they say the same!

- INTERNATIONAL KARATE by SYSTEM 3.

Archer MacLean confirmed that this game does NOT have a game ending. It's a shame because I think there is a need for one.

- JUNGLE STORY by MASTERTRONIC.

This game just gets faster and faster and is never-ending!

- KRAKOUT by GREMLIN GRAPHICS.

Sent in by Tilmann on 06/03/06: Just "finished" Krakout - brilliant as the game is, after I finally reached level 100, it just started over. Level 001 and now being 101. Quite a disappointment :(

- LEVIATHAN by English Software.

Info provided in by Kobayashi (on the LEMON 64 forum) on 03/03/06: Level 10 just loops once you finish it.

- MAGIC CARPET by MASTERTRONIC.

This game just gets faster and faster and is never-ending!

- MEAN MACHINE by CODEMASTERS.

Just 5 levels, and after the final 'QUALIFY', you go back to level 1.

- MILK RACE by MASTERTRONIC.

Info provided in by Brendan Phoenix 10/06/08: 13 stages - what happens on the final stage? GAME OVER

- MISSION A.D. by ODIN.

Info provided in by Brendan Phoenix 14/04/08: Looks like no ending - had a level skip trainer and went up to level 200 - just looks like a never ending loop.

- ONE MAN AND HIS DROID by Mastertronic.

Info provided in by Kobayashi (on the LEMON 64 forum) on 03/03/06: Just goes back to level 1.

- PARK PATROL by Activision.

Info provided in by Henrik on 02/11/07: Perhaps there is one, but I never found one in "Park Patrol". After 3 1/2 hours of playing, I was at level 99 (which never increased), with 99 lives and 999,999 points. (Or was that 99,999? Anyways.) So I tried dying, and made it down to about 40 lives left when my old black-and-white teevee gave out on me. *sob* It had never been on for that long in one sitting before. Still a great game to play. Possibly even better for not having any ending, just getting more and more enemies and cans to pick up and .. stuff. And music I can still remember. *brrr* Sticky, clingy, bouncy music. Help!

- PARADROID by HEWSON.

Sent in by Edvard Kramer: "I finally killed the very last remaining rogue droid on the spaceship. And immediately had to start with the old .001 influence device from the very beginning of the game. No trumpets of victory. Not even a cold handshake from the fleet commander."

Update from Craig Grannell on 15/01/06: Your Paradroid listing isn't entirely accurate. What happens when you complete a ship is you get put on to the next one, which is harder. After clearing "all" of the ships, you end up in a loop, constantly being put back on a ship called something "puntastic" like "ltsnotardenuff".

- PUNCHY by MR MICRO LTD.

Sent in by C64endings Team Member, Brendan Phoenix on 05/12/07: Loops forever.

- RAMPAGE by ACTIVISION

Sent in by C64endings Team Member, Brendan Phoenix on 15/04/08: I had a trainer which lets you start at the last level (132) just loops - so no ending.

- ROCKY HORROR SHOW by CRL

.Sent in by Inge Pederson: I got a deja vu and just had to check the game once more. Except from the hires pic, there is no actual ending. ie: a) When you get killed, the game presents you with an up-scroller. b) When you finish the game, you get the picture of the mansion for a few secs, and then the game jumps to the same up-scroller as a).

- SAM'S JAM by ABRASCO.

I LOVE THIS GAME! In fact, when I first purchased it way back in 1984 (£1.99) I played it for 8 hours SOLID! As with all the games on this page, there is no freeing ending!

- SENTINEL (The) by FIREBIRD.

Sent in by Ivan Smolenski: 10,000 levels and no ending.

- SIDEARMS by GO!

Sent in by Neil Collins on 27/05/08: Game just loops back to level one.... yawn

- SILKWORM by THE SALES CURVE

. Sent in by Neil Collins on 27/05/08: No ending. Just goes back to the title page. Shame.

- SOLOMOM'S KEY by U.S. GOLD.

Sent in by Neil Collins on 29/06/07: does not have an end. Just finished the final level (33) and it loops back to level 1. Not even a well done ! Scumbags !

- SPACE HARRIER by ELITE.

Sent in by Neil Collins on 27/05/08: Has no end. Goes back to level one.

- STORMLORD by Hewson.

Info provided in by Compound (on the LEMON 64 forum) on 27/04/07: After the level 4 bonus round, the game warps back to level 1.

- STREET SURFER by Parker Brothers.

Info provided in by Ivan Smolenski on 15/07/06: The game just keep going and going an it never ends.

- SUPER PIPELINE 2 by Taskset.

After completing Level 16, the game goes back to Level 1 without making any acknowledgement of completing the game!

- THRUST by FIREBIRD.

Sent in by C64endings Team Member, Brendan Phoenix on 05/12/07: Loops forever.

- THUNDERBOLT by Codemasters.

Added by C64endings Web Master on 10/04/08: Loops forever.

- TOY BIZARRE by Activision.

Info provided in by Vinny Mainolfi on 16/03/07. Once you have completed Friday, it goes back to Friday, Hour 1!! Round and round it goes :(

- TROOPER TRUCK by RABBIT SOFTWARE. Here's another game that just gets faster and faster, resulting in harder and harder (oo-er, missus!).

- VELOCIPEDA by PLAYERS.

Complete Level 5 and without any warning, it's back to Level 1 !!

- VIXEN by MARTECH.

Sent in by C64endings Team Member, Brendan Phoenix on 05/12/07: Loops forever.

- YIE-AR KUNG-FU by IMAGINE.

I remember playing this one for HOURS and watching it go round and round until I gave up on seeing an actual ending.

- ZULU by Firebird.

Info provided in by Brendan (Fiery) Phoenix on 05/05/06: No ending for Firebird's Zulu. Bit disappointed on this as no trainer available I played it through to completion. I was hoping like Firebird's Go-Go The Ghost from the same time - it too would have a cool little ending, but no - you collect the 100th golden mask and it sends you straight back to the start. Boo.

- ZYNAPS by Hewson.

Info provided in by Kobayashi (on the LEMON 64 forum) on 03/03/06: Goes on forever!

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Interview with Commodore programmer Antonino Porcino author of Gomoku

<http://xoomer.alice.it/aporcino/Vic20/>

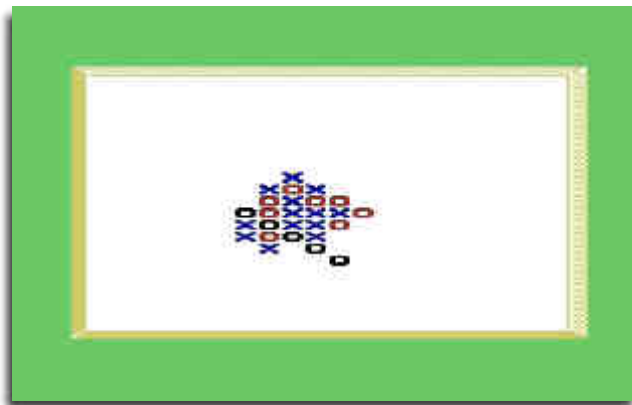
Commodore Free:

Please introduce yourself to our reader

Antonino Porcino

Hello, I'm Antonino Porcino, the author of Gomoku and some other VIC-20 games. I'm 36 and live in Italy, working as computer programmer.

CF: When did you first come into contact with Commodore machines



AP: It was back in 1984 after I managed to persuade my parents to buy me a VIC-20. I really didn't know what could be done with a computer, I figured out that it was possible to play some form of games as in video game consoles, and that was enough for me to start craving for a VIC. I was twelve.

CF: Was the Vic your first machine and do you own other Commodore machines

AP: It was my first computer and I simply loved it, spending most of my free time experimenting with it. I later owned a Plus4, a C=64, and of course an Amiga. But I lost my machines along the years so I had to buy back the VIC on ebay. And a friend gave me his C=64.

CF: Do you think there is still life in the Vic 20

AP: Yes, there is a small but very active community that rotates around the "Denial" website run by Jeff Daniels. In mid of 2008 we already have 7 titles released for the VIC. The community provides an ideal environment where you can discuss technical subjects and share your experiences. It also help to keep the interest alive.

CF: Do you think there are features of the machine still untapped by programmers

AP: Not really, the VIC-20 is a relatively simple machine, and that's why I love it, in the sense that you can expect to "master it" if you put in enough effort. The same thing for example can't be said for a PC where everything is so unnecessary complex and certain parts of its architecture are secreted.

CF: Can you tell our readers about Go-Moku what it is and briefly how to play

AP: Gomoku is the classical 'X' and 'O' game where you have to connect five Dots before your opponent does the same. Can be played also with "pen and paper" and for this reason is widespread known around the world (usually under different names). It has simple rules but a very complex playing strategy. Mathematicians say that Gomoku is a "closed game" in the sense that who moves first can always close the match with a win (like in tic-tac-toe), but this is true only in theory because of the exponentially high number of possible moves. So there isn't a "perfect" play, and computer players have to use some kind of strategy. The one adopted in my program is basically to look for some particular board configurations and play accordingly.

CF: You ported the game to the c64 and plus4/16 machines where there any problems with the conversion.

AP: I wrote the program with the idea of portability from the start, so I didn't use any special machine-dependant effect. I limited myself to definable character graphics and to standard calls to the ROM kernal. After the VIC-20 version was ready, I converted the it for the C=64 because of the similarity with the VIC (most ROM and zero page is the same). The only work was to adapt it to 40 columns, and indeed I faced the problem that my routines in the 64 version exceeded the 256 bytes indexing Capabilities of the 6502.

So I downgraded them to a slower version that worked for both machines. The C16/Plus4 version came later, and was relatively easy to do because all the 40 columns work was already done for the C64. I had only a trouble from of a bug that didn't show on the VICE emulator but that appeared on the real machine.

CF: How much memory does the game use, did you think it may not fit into an unexpanded machine

AP: Working with the VIC20 taught me how to save bytes. For example my Go-Moku program does its calculations directly in the screen memory, re-using the "free cells" of the board instead of having a separate memory area dedicated for calculations. In the download page of the game I show a POKE command that makes visible the calculations that are being done in the free cells. It's nice to see.



CF: other games on your website are Tetris / Pong and Return To Fort Knox can you tell our readers a little about these games

AP: "Tetris" was the program that made me acquaint again with the VIC-20 and 8 bit programming after twenty years. There was no such game for the VIC so I decided to write an implementation.

"Pong" is a joined effort together with another VIC-20 enthusiast and countryman "Nbla000", aimed at reproducing the exact Pong hardware game.



"Return to Fort Knox" is a total different story. One day I started to disassemble the Commodore cartridge "Raid On Fort Knox", doing an intensive reverse-engineering work lasted one entire weekend. At the end I came up with the complete game source code, so it was natural for me to extend it, adding new levels and a small different game play--but still maintaining the original look and feel. I like to think that this sequel is a tribute to the original game, being it the first I ever played on my VIC.

CF: Do you intend porting these games to the c64 plus4/16 machines

AP: Well, maybe "Return to fort knox", but not Tetris or Pong as there are already good implementations of these games. I prefer to dedicate my time to something that hasn't been ported yet.

CF: Are the any projects you are working on at the moment

AP: Nothing at the moment, I'm looking for inspiration.

CF: Is there anything our readers can do to help with the games

AP: Not at the moment

CF: How do you programme do you use cross platform tools or purely on the VIC

AP: I cross develop on the PC, test on the emulator and then on the real hardware when finished. I program in machine language, but in a different way than the traditional one. I use a macro language of my invention that allows me to write an highly structured assembler code. For example I can put a FOR-NEXT or nested IF-THEN-ELSE in the code and have these statements properly translated into machine language. This frees me completely from labels and from the "branch-here" "branch-there" style of programming. The resulted code is very compact, looking like a middle-way between visual-basic and machine language.

CF: Why use cross platform tools is it purely speed of development

AP: Not only. With the macro language tool that I've created I can work at big projects, while I can write only small useless routines on the real machine without cross compilers.

CF: Have you considered programming purely on the VIC with no other tools other than software available on the machine

AP: No, I don't consider it as an option, especially as it regards BASIC programming. It's no longer attractive to me, although in the days I was a very active BASIC programmer.

CF: 3k of memory was an incredibly small amount of memory do you think this limited the machine

AP: Yes of course, but that was balanced by programmers who became more creative!

CF: If you could change 3 things on the VIC20 what would you change and why

AP: Oh well, this is something I daydream a lot about. If I was Jack Tramiel at the time, I would have increased the screen size because it's too limiting to have a 22x23 screen, especially when editing BASIC programs. I would have also included some 16 bit operation (like INC or ADD) in the CPU, perhaps dropping the totally useless BCD mode. And, what about having a better ROM kernal with more built-in commonly used routines. For example joystick reading, or some form of graphic sprites. I believe awell written ROM kernal could have balanced the small memory issue of the VIC-20.

CF: What motivated you to write software for 8bit Commodore machines

AP: Having explored the world of computer programming in almost every aspect I felt the need to return back to my roots to the point where this long journey started. It's like a circle that closes itself.

CF: Do you have any further comments you would like to add ?

AP: Thank you for the interview and I hope I have raised the interest of your readers. Good BYTE!



In the Beginning Part 6 \Lord Ronin from Q-Link\



the 40 characters on the screen line. No comma and it just does one line.

Next is seeing that a computer programme is more literal than me. It will operate from the lowest number line to the highest. Unless some other command moves it to a new location in the programme. In this instance it is the goto command. Telling the computer to print line 10. Then on 20 it is telling it to return to line 10. Do the action there and when it automatically drops to line 20. As the programme will drop to the next command line after performing the previous line function. The function on line 20 tells it to go back to 10. We have a forever loop here. Not a real great programme. Element of it is used a lot in programming.

That was a lot to present. Now we are at the last file for this disk side. We are going back to the manual and the bits on introducing the user to Basic v2 programming.

Remember that you can use the ? to replace the word print.

Lets mess with a few keys. We did editing a bit already. Did a bit on the print thing. Lets mess a bit more with the print thing. So type in the following or something close to it.

```
10?"commodore", <yeah put in the comma and then press return>
```

```
20goto 10 <return again>
```

Now type RUN. Or if you are close to being as lazy as me. Just type R and a shifted U. The U will be that quarter circle on the right side of the U key. If you are in upper case. If in lower case it will look on the screen as rU. That is the short hand programmers way of telling the computer to run. Do need to press return.

You now have four commodore across the screen running on forever until you press the run/stop key. Do that and then on line 10 of the programme. Delete the comma and run it again. Remember to press return on the line. that locks in what you write or edit. No return and it keeps what was there or doesn't record it to memory.

What you now have is a string down the left side of the C= saying commodore. Or what ever you put in there. Only difference is the comma. Oh yeah press run/stop to stop that or it will go on forever.

A few things to see about this right now. That comma made the print on the screen come out in 4 per a line. Less if you wrote more characters in the word to be printed. This is setting the print to each of the 4 groups, or tabs at the 10 space mark of

Book takes us to the "Variables" next. Sort of like the math term, if you went into algebra and trig. If not then this may actually be easier for you. Learning the terms without preconceived notions of the meanings.

A variable is a something that can change in the course of the operation of the programme. It is also a holder of a something. And if you understand that explanation you are much better than me.

```
V=9.23  
V%=100  
V$="since 1978ce I've played AD&D"
```

That is a light hearted look at the three types of variables in the C=. First one V=9.25 uses a floating point. You get the decimal part of the number. V%=100 will give you what they call the integer number. No decimal point. V\$= well the text that I wrote in the quotes. Is called a "string". OK full title is a text string. But I know of no one that calls it that. According to the book these are memory locations in the computer. No I don't understand that at all. Said I was a lamer at programming. And at this point in time that bit isn't important for you to use the C=. Just telling you what the book says.

A programme they give you to type in to understand this variable part is..

```
10X%=15  
20X=23.5  
30X$="THE SUM OF X%+X ="
```

Note that the actual math computation is not in the programme lines. This is to show you the things of or for a variable.

```
10X%=15
```



```
20X=23.5
30D=X%+X
40X$="THE SUM OF X%+X ="
50?X$,D
```

Might work, I just came up with that lay out to show you some points we will deal with in the future. Basically what we have done in the above is to define the floating, the integer and the text. Then add the math part. Giving it a new variable label. Line 50 is supposed to print out the text and then the actual result. Here is one based on the Commodore programme lesson book.

```
10Z$="CAT"
20A$="BOX"
30?Z$+A$
```

Now if I remember that correctly the print will print out the word "catbox" on the screen. Just showing you how variables can be combined in a programme.

Before we go any farther along. There are some things we will be doing in typing in a programme. You may want to save these to disk or tape for later. Tape users, make certain that there is nothing on the tape you want to save. I personally take a pencil, ah the standard wooden one, and put it in the hole. Slowly twisting the wheel till the leader tape is past the cotton pad. That way you know that you are going to be on recordable media when you start to save. Saving the programme to tape goes this way. You type

SAVE"name you give it" note that the name can not be longer than 16 characters.

After hitting return. You will see on the screen

PRESS PLAY AND RECORD ON TAPE

Do that and the screen goes blank. Becoming, or so it says the same colour as the border. Tape takes some time, but when it is finished. You will get that READY prompt on the screen.

Now disk users. You have a little bit more to work with at this point in time. First do you have a disk that you can use? Before you answer that one. Take a moment to reflect. If you are like most people I have started off on the C=. Your set up is used and there may be a hundred disks. Which one to use? Well if you have some that are unused. That is great. Those are the ones that when you do a directory listing. Come up with nothing. Just an error. Remember that you type in LOAD, wait a moment lets get lazy and do the short cut. That is the L and the shifted O. Symbol for that in upper case is that upper left angle on the right of the key. In lower case it would look like IO. Now if you have jiffy dos it is just the F1 key. If you have a cart like the MACH or the TURBO and there are some others. Try just the \$ symbol for the directory.

Those that are stock. The command is IO"\$",8 then press return. That IO is the short form load command. The "" part is the border for the item to be loaded. Since the \$ is in that bordered area. You are loading the \$ or the directory of the disk. Comma separate and the 8 is the device number. Once that is done, press LIST or the short form of L and a shifted I. In upper case it is the right upper circle part on the I key. In lower case it looks like II.

If the directory lists the things I mentioned in an earlier installment. Then put it off to the side. If it doesn't do a thing and sits there after some scary noises from the drive. There is a good chance it is a blank unformatted disk.

Guess it is now time to go into some of the stuff on a disk. Factory disks had a nice label put on them. Which also has

a tendency to fall off over time. So there may not be a label on the disk. But it is a factory disk. Looking at the directory. Seeing the listing of the files and the reverse video bar above it with the title and the 2 character id code. Well that can help you decide if it is a good to use or not disk. Not the id code as much as the disk name. I have seen on factory disks for id codes. Well things like "s1" or "sa" to indicate the first side. I have seen them use "00" and "01" to indicate the sides.

And other forms that are simple that many beginners use for their own disks. Some I have seen use a name in up to 5 characters. This isn't a sign of a factory disk. I have a small tool that lets me make 5 character id codes. What you are looking for more is the name that the disk was given. Certain non media broadcastable words, are a big clue that the disk isn't factory. "GREG'S STUFF" is another type of clue.

I'm going into great detail and pains on this one. At your beginning level, well honestly you don't know what you have or how to use it. You could destroy a disk of important tools and utilities that you would or could want in the future. Trust me on this one, I have done it in the past more times that I want to admit.

If you have unformatted disks. The ones that made the drive make haunted house noises and then did an error thing. Then you need to format it. If not then we have a couple of things to do at this point. One is to know that you can buy 5 1/4 inch disks. There are some companies that sell new ones online. Places like ebay have some from time to time for sale. Just need to look around. I scored some up from a computer repair shop and from a close out at stationary store. Remember that you want double sided double density and soft sectored.

Lets take a look at the disks that you put in that pile of "I don't know what the smeg they are." Odds are that there are a few of them with very little on them. You see some of the games, want you to have a save disk. So the previous owner took a disk. Stuck it in the machine and had the game programme format it for him. This saves his game in progress. In fact on some you can save multiple games. But the point is that the disk is formatted. Most of the time it will work as stock.

But I have to say here that there were some that did a non standard format for the game. I haven't found many of that sort that would read right on a directory search. Well there could be 200 or more blocks free on the disk. When you save, unless you use the same name as an existing file. The disk drive micro processor checks for names, and for space. So it won't write over anything existing.

Another thing that you might see and I mentioned lightly earlier. You disk may have only one side with that square type notch. I have taken in collections that way. Here we need to be careful. The disk could be a factory that uses side two as a read only disk. In fact if you have disks with no notches at all. Most likely you have a factory disk. That notch hole allows you to write to the disk. No notch, no writing. Sub note, there are ways around that fact.

Speaking of that before we go farther. You may find disks that have a bit of tape over the notch. These can be black the most common, white and a silver one. That last one is in some machines worthless. Reflecting the beam back and has been known to fake the drive into thinking there is a notch. Disk boxes from the store had labels, the disks of course and a sheet of these notch covers.

Over time they dry out and slip up. Making a mess in the drive and hard to insert. Labels do the same thing, if not well placed on the disk. Well that disk notch cover means

that the data was important to the previous user. Doesn't mean that it is important to you. But leave that disk to the side. Might have some things that you need later on.

Back to the only one sided notched. If you have a 1571 in your collection. Take the disk directory and add it up. Add to that the blocks free, and subtract it from 1328. Should get a 0 if it is a 1571 formatted disk. If so, put it off to the side for now.

However if you don't have a 1571 drive and you have single notched disks. These disks are tested and are not what you would think as factory disks of some sort. Yes feel free to load them up and see what is there. As I said some factory disk games use the reverse side for the data. But you can't write or save to that side. Have to turn the disk over. If that isn't the case. Then you have a disk that has a virgin side. The previous owner didn't notch it and it has never been used.

But how to notch it? Well the easiest is a disk notcher. Which you may have in the box of stuff. Take a look, it is in different forms. But the basics are the same. On the top is a push button about thumb size. Along one side is a long slot. If you find that sort of thing, plastic or metal, I have both. Then you probably have a disk notcher. Why didn't the guy notch the disk? Well disks didn't come double notched for the most part. You do a hundred or even ten at a time, and you will see why. I did over a dozen each month for the users group. Hated that task. One's hand gets very sore. Anyway, if you have one. Just slide the non notched side into that slot.

Get it in tight both to the inside and to the top of the notcher. Then press down on the spring loaded button. Hey if it feels like they put in a truck coil for that spring. You have the same type as I started with at my beginning. Well now if things worked out. You will have a bit of the plastic jacket come out the bottom. Safety note, grab that and toss it away if you have pets or small kids. The notch should be as deep and exactly at the same level as the original one. Just on the other edge of the disk. OK I admit that there are times that I don't get it just right. So back in the notcher it goes.

What if you don't have a notcher? A reason why the disks in your collection may all be just one sided used. Some users didn't know that they could notch the disk and use the other side. But if you see disks, looking at the top or label side that have a weird sideways V cut. Or a half round cut. The previous owner used the cheaper and more dangerous method of disk notching. I would suggest hunting around on the web, the net and locally to find one laying about. A disk notcher I mean.

But failing that task and wanting to get to the C= right now. Here is what you do, and it is dangerous to the disk. You can use either a pair of scissors, that is the style that makes the sideways V cut. Also the most dangerous of the two methods. Or you can use a paper hole punch. That is what made the half circle looking notch. I met one guy that was expert enough to use an exacto knife. I don't suggest that one unless you have good eyes and very steady hands. I fit neither of those classifications.

Most people would take the sleeve, that is the paper holder for the disk. Line it up level with the existing notch. Then carefully clip with either of the above tools a little notch on the side. Sounds easy? Well here is the problem. Inside that disk jacket, the plastic part, is the round magnetic media. Clip that and the disk is trash for the most part. OK depending on how much is on the disk. You may be able to save the files to another disk. But don't risk it. If you have to use this method. Well you can see the depth of the factory

notch. Go less than that to be safe. Or the disk is fairly well ruined.

That all being said in as much depth and warning as possible. Time to format the disk. Despite any fast loader carts or jiffy dos. We are going to do it this way.

open15,8,15,"n0:disk name,*:close15**

OK in as little technical talk as possible. You are opening a communications path to the disk drive. That is the 8 part. The 15 and there are two of them there, well it is complicated and to be as brief as possible. This is the channel to send and to receive information from the disk drive. I use 15 as it is common and 15 is the one that will send back any error. OK you can use up to 255 as the channel number as that is how many there are from what I have been told. Gotta have those commas for the pause direction thinggy. Don't worry about that part.

Just copy that into your format line. Quotes are needed to set up what you are going to do, yeah sort of like the print statement. Now the N0: part is for formatting the disk. The command to format. Disk name is what ever you want up to 16 characters and yes you can use spaces. Those two ** things, are to represent the two characters from the KB that you use to specifically code this disk. End the command with the close of the quotes. Thsymbol separates commands on a line. Since we opened 15 now we have to close 15.

Enough technical talk. Really won't mean a lot to you till much later on. Sort of a little teeny bit of ground work on some techy stuff. After you typed open15,8,15,"n0:disk name,***:close15 Press return and you will hear the disk drive rumble, grunt and perhaps even make a grinding rattling noise. Light may flash rapidly, causing you to worry that you did something wrong. That is the head setting up for the formatting. All that track and half track with sector stuff. Not time to go into that stuff. Head just has to go into the right place.

May hear a clicking noise coming from the drive. That is the head moving one track at a time out of the 35. Drive will eventually stop. Green light will be out and the READY will be on the screen with the flashing cursor. Well if everything goes right. There can be some problems and that is another section to deal with for more advanced beginning. Suffice it that if the stuff written above doesn't happen. You got a bad disk or drive. Sorry but that part is for later on in the series.

Check the directory to see if it did format correctly. Did you get the name and ID code right? Probably, but there could be another problem. I have had to do the format more than once on the same disk side. Not because I did anything wrong. Just that disks that are 10 years and older. That haven't been used, like that side 2 part. Need to be formatted 3 or 4 times.

What happens is that it stops during the format. Either the clicking of the head movement stops real fast. There is almost a lort of purr like noise at the end of a format, at least on my system. OR the click starts at the steady rate and then slows down. Exactly why, I don't know, just pass it along that the disk can be set in its ways and needs to be hit a few times with the format command to work.

Might get to this again later. But for right now, here are some other commands. To save space, my fingers and your eyes. Lets just go with it stated that each of these needs the open15,8,15, part and after the quotes the :close15 part. OK you can be short and use oP in lower case to open and cL to close.

"s0:filename" This will scratch the name of the file you select. Scratch means that it isn't on the directory anymore. But it is still physically on the disk. Until you either record some other programme thing over it or

"v0:" and that is validate. Closest to that on other platforms is defrag, or so I have been told. Don't have any experience. Validate picks up the bits and in a simple term, tightens up the disk space. One book I read said to validate after every three scratches. I don't as a rule myself. More like 5 or 8. This moves stuff around on the disk. Which will destroy the scratched files. Right the feds can't read the disk. <SEG>

"n0:filename" No this isn't format. There isn't the 2 character id code. This is new the disk. Basically it just erases the directory. Sort of tear out the table of contents for a book. Files are still there and with tools can be recovered. A fast format way that has some drawbacks and I know long time crackers that won't use this command.

"i0:" Initialise the disk. Some books say to do this every time you put another disk in the drive. Main reason is that if there is a chance that the id code of one disk is the same as another disk. Well the computer will work as if it is the same disk. At least in the BAM, or Block Availability Map. I have also seen it as Block Allocation Map. In short that is the disk roadmap where things are located on the disk. Hard to drive in Liverpool England, if you are using a Portland Oregon Map. In the computer case the result can be. You write over things on the disk. Because the old map said it was empty.

Lets say that after all of that dull stuff. You have a disk that is ready and we are going back to the Variable thing now. V V% V\$ are the three types. Yeah I know they just love to use X in the examples. But I am antiestablishment.

V% give the whole number. V gives the number with decimals and V\$ is for printing text. Well there are 26 letters and 10 numbers that you can use for variable names. Meaning that you have 36 possibilities for a variable? Well I cheat and programme in lower case. Using Upper case characters as well. Tip here is that not all upper case work that way. Still not to worry. 36 is a big number. Well it gets bigger. You see the book takes time to bring his up. But you are not limited to V\$. Nope you can have V1\$-V0\$ as well as VA\$-VZ\$ 26 letters and 10 numbers, that you can use singly and in two characters for your variable. Makes that number a bit higher. Though a bit early in this drive. Variables can also be reused in programmes. We, OK I am not ready to go into that at this time. Lets end this part with the understanding that when you change the value of a variable. The new one completely takes over the old value. Book says it with the example X=X+1.

Next comes the IF THEN statement. Simply put. IF this part is true THEN go to this. Conditioner thing for the programme. Book gives the following thing to type in.

new <type in and press return. Clears the memory for you of anything left behind. Additive: most of the time>

```
10ct=0
20?"commodore 64"
30ct=ct+1
40if ct<5then20
50end
```

Remember to press return at the end of each line. A common fault in doing type ins is forgetting that keypress. I am very guilty of that. Now type rU and see what happens.

You get the word printed out 5 times. Lets figure out why. Well the secret is in line 10. Here you see a two character

variable called ct. Think of that as a short form of "Count". This is set by the "=" sign to be at 0. Next line is the stock print statement. Telling the computer what we want to print. Now we have that "ct" again. This time it is set to add 1 to the value of ct. Seeing how a variable can be used more than once. 40 asks the question is ct less than 5. If so then go back to line 20. Which is the print line and we keep going around till ct is 5. At that point the programme moves to the next line, which is end and that shuts off the prg.

Book doesn't go any farther in a use of IF THEN. Well it is written for the first timer. I use it in some of my work to send the programme to a specific area. IF certain conditions are met. THEN it goes to that area of the programme. One that comes to my mind is a programme I wrote for AD&D experience point calculations. Merely took the data from the book and made it a programme. There are over 10 basic things for the start. These are the Hit Die of the monster. IF HD=8 THEN 300, is sort of the line that I wrote. User had to type in the HD value. That became the variable and the math started for the calculations on that specific line. Have seen a lot of simple menu programmes that use the same IF THEN style to load programmes.

At this point you may want to save the little prg to disk. we did the tape one earlier. On a blank line type

save"name file",8 <press return> Give it what ever name you want, and it should be making the disk spin and you will in a short time see that ready and cursor flashing again.

So there are some weird things to use in a programme. I mean like that "<" thing above. Here is a chart of them and what they mean.

```
< less than
> greater than
= equal to
<> not equal to
>= greater than or equal to
<= less than or equal to
```

Not a great help at this time. Something for future reference.

That is followed by the FOR NEXT LOOPS. But that and the example will be in the next part. Out of space again. Talk too much I guess <BG>



TND Creating music with DMC

http://www.redesign.sk/tnd64/music_scene.html

Created by Richard Bayliss with Special thanks to Rio / [Rattenrudel](#)

PART 3

Commodore Free would like to thank Richard Bayliss for his permission to reprint this guide. Many users would like to make more of these machines, we all have various talents and if you felt inspired to create music on a Commodore 64 where would you begin, in this guide you are lead through the various options, for creating music with versions of DMC music editor. The Guide has been broken down in sections the disk image that accompanies this series is available from here www.redesign.sk/tnd64/DMC%20Music%20Editors%5BTND%5D.zip

the disk contains

DMC V2.1 (GRAFFITY), DMC V4.0 (GRAFFITY) + Docs (By Richard), DMC V5.0, DMC V5.0+ (CREAMD/C64.SK), DMC V5 PACKER, DMC V5.0 SCANNER and DMC V7.0 (GRAFFITY+UNREAL)

2.2.4 Filter

If you want use filters, you have to define which filterset should be used. First you have to create an own filterset in the **Filter editor** (take a look later at this chapter). The number of filterset should be written down below **F** parameter. To activate the filter - take a look into FX Chapter.

2.2.5 Vibrato

Vibrato can be controlled by V1 and V2 parameter. For V1 xy values, x represent the pause before the vibro should start. y sets the value of range, in which the pitch should swing around. V2 xx can be used for modulation with V1 y parameter. V2 allows a higher range.

2.2.6 FX

FX is a 8 bit value to control several flag:

The Low Nibble (4 bits right) represent following parameter:

- Bit 0: DRUM EFFECT (pitch will be ignored in sector editor, in WT: pitch values will step in higher range)
- Bit 1: NO FILT RES (for every played note filter will not be resetted anymore)
- Bit 2: NO PULS RES (for every played note

- pulse will not be resetted anymore)
- Bit 3: NO GATE FX (holds your note down, until a GATE is set)

The High Nibble (4 bits left) represent the waveform type:

- Bit 4: HOLDING FX (Note will not be released)
- Bit 5: FILTER FX (activates FILTER, which is defined by **F**)
- Bit 6: DUAL EFFECT (playes Wavetable at half speed)
- Bit 7: CYMBAL FX (adds short noise in front of a sound)

The variations of x values (Low Nibble) or y values (High Nibble) can be combined for mixed use. So a 2A will activate Bit 5 (activating filter) and Bit 1 + Bit 3 (no filter reset + no gate), because 2 is the high nibble and gets a binary value of 0010 and A is the low nibble and gets a binary value of 1010. ok?

2.3 Filter Editor

We change back to main menu and go into the



Filter Editor. In that view, we can't copy and paste, but it's still possible to store different filtersetups. You can switch between the different settings with + and - keys.

Before we start to create an own Filter, first we need to adjust an instrument in Sound Editor. You have to choose a filterset number (F) between 0..F and then we activate the filter (FX: 20) for that instrument. Then we go in Filter Editor again and we choose the same number of F for (FLT) and define following parameters: Test it by pushing the space key. It should sound very filtered. If you use a 6581 SID Chip (you will find them mostly in a breadbox, not that flat case) you should try instead for number (##) 5 a higher values.

Notice that all these setting are different for using both SID Types (6581 /8580). You have to choose higher values on the 6581, otherwise the filtered instruments sound to deep. Pay atten-

tion if you work with a 6581, that you have to set filtered sounds only in one channel! If you use that 8580 chips then a simultaneous use of filtered sounds in all three channels is possible. Composing a tune for 6581 or a compatible tune for both types should only be filtered in one channel at same time.

2.3.1 Parameters

Ok, now is time to clear up the meaning of parameters. From left to right:

- R: Resonance / Rate
- T: Filter Type
 - Bit 0: Low Pass
 - Bit 1: Band Pass
 - Bit 2: High Pass

CutOff Frequency (frequency, where filter are take effect)

RT: Repeat Step-Position (01..05)

ST: Stop at a defined frequency step, if that step is reached

S1 X1: S (frequency steps up/down) and X (duration)

...
S6 X6

Rate / Resonance defines how much effect a filter will take effect (F is max). The SID allows you to set up and to combine 3 different filter types: Low-, Band- and High-Pass. In our quick example we only used Low Pass, but you can combine Low- and Band-Pass by writing a 3 instead 1 too (e.g. 7 will activate all 3 filter types). The next value below ## represents the CutOff Frequency. If you havn't write a number there, you won't hear anything.

2.3.2 Filter Envelope



If you want to use filter envelopes or create LFOs, then the next parameters can be configured in different ways. The first two params (RT and ST) are only useful if there is filled up the 6-table (Sx Xy).

An example:

The Sx Xy parameter will pass through in a chonical order. You should always start with the first (S1 X1). That example runs through that filter envelope in a form of a LFO. For understanding, you have to notice that Sx always represents the frequencies, which will steps up or down. Here, it will first steps up and then steps down at the end of envelope (S6 X6). Then it will start again with S1 X1.

The direction and the amount of steps for a position will be defined in Sx:

- 00: nothing
- 01-7F: up (slow..fast)
- 80: mid
- FF-81: down (slow..fast)

Xy defines the duration of that position. After that the next position will be processed. You can see in example

above, that the values of steps are facing each other (01<->FF). For a Triangle LFO, we should use the same duration and same step amount for going up and down. So 01 will increase with 1 step and FF will decrease in 1 step too.



The example above shows a LFO with a longer pause between gliding up or down. Xy adjust the duration of a step-position (S1,S2...).

That example below will run in more weighten steps. Instead of 1 step it will raise and sink with 2 steps.

We are able to influence the repeats of a LFO too. That example will pitch up:



We can influence the length of an envelope too. That following example will stop the envelope, if the step value reached 1D (ST). Notice that the cutoff value have to reach that hex number, otherwise it will be ignored. 1D will be reached, because we always steps 3 values up and then 2 down:



In that last example below the envelope will be repeated to S3 X3 after every pass. Higher values than RT = 06 shouldn't be used. Seems it will not have any functionality or will set a wrong state.

Please notice, if an overflow occurs, all counter routines of a byte will start again at 00. If we decremanta a byte value e.g. at position 00, the next value will be FF. If we increment FF, next value will set to 00.



2.4 Track Editor

The Track Editor will be shown if we leave the main menu or all submenus by pressing **RETURN**. That Editor handles the arrangement for sectors and shows all your defined sectors in a sequential order for every channel seperatly. If you start it the first time, everywhere will be placed a 00 value. SID is conceived with 3 Channels, so there are 3 Tracks available.

2.4.1 Channels

Every Track contains an index number (postion) and a sector number, which can be filled up with a special sector (they will store the playing sequence). Additional we are able to set special commands, like setting a global transposing value, contolling the end or controlling repeats of a track. The duration of a played sector is dependent of the sector length. So every channel can be played in an asynchronous duration too! If we start composing, we should learn to define synchronous routines. More information about that are described in chapter: **Sector Editor**.

2.4.2 Options

If we want to play our tune, we can start it by pushing **F1**. If nothing is defined before we won't hear anything. **F3** will stop and **F5** will continues the playroutine. **F7** winds forward a played music. In DMC7 your are able to trace the complete routine to have a better overview of played sectors in every channel. Simply press **.** If you want use different player types, you are able to choose between: NORMAL Player (C= + 1), DOUBLE Player (C= + 2), TRIPLE Player (C= + 3), , QUADRO Player (C= + 4) and QUINTUPLE Player (C= + 5). Notice that the play routine will be set to \$1006 instead \$1003 in higher modes as NORMAL.

If we want to test how your instruments sound, by playing in realtime, you can switch into the "SYNTHESIZER MODE" by pushing **F8**. If we stay in that mode, we are able to change instruments with **+** and **-** and to set a transpose value between 0 and 7. **F6** will activate the record mode. The recorded sequence can later be placed in any sector in DMC7 (Notice that DMC4 will record in current sector!). If you paste a recorded sequence, notice that you have to place an additional **END!** command in your sectors. SYNTHESIZER and RECORD MODE can be turned off by pushing **RUN/STOP**.

By pushing **SHIFT + C** we can copy a complete track to another track position (1,2,3). **SHIFT + X** will exchange a track with another one. **HOME** steps to the first line and **CLR** (SHIFT + HOME) clears a track. There is also a COPY / PASTE functionality integrated. **.** Arrow (Copy - part of the screen flicker in green) and **@** (Paste - part of the screen flicker in red). Tracks will be copied only to a **-END-** Command in Tracks (Everything behind that will be ignored).

DEL deletes, **INST** (SHIFT + DEL) inserts a line.

A complete tune can be initialise by pressing **SHIFT + I**. The keys **SHIFT + T** will switch into the tune menu. Here we can choose which tune should be edited (DMC 4 / 7 can store up to 8 tunes). At least with **SHIFT + RETURN** we can edit a selected sector. If we step to a 00, Sector 00 will be edited. If we write another number on that position, then Sector xx will change to that.

2.4.3 Commands

there are 3 Commands to control the tracks:

TR+ or TR- Global transpose up or down for that track
 -END- Jump playroutine to X position
 STOP! Stop playroutine

Relative transpose settings can by change by **+** or **-** keys with a value in front of following sectors. The playroutine will registered that command and jumps to the next position.

-END- Command will set a jump mark in track (**SHIFT + E**). The playroutine will jump to a specific position (have to be written below **-END-**) and repeats the whole track area again. Sadly, that functionality was forgotten in DMC7. It jumps only back to the first line.

STOP! Command stops a current playing track (**C= + E**). No jumps or repeats are possible.

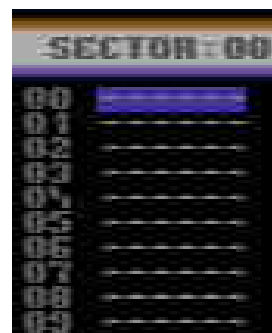
That example above will play only the first channel. The 2nd and 3th are stop by **STOP!** Command. The first channel uses Sector 00 and Sector 01 (2 times, but in different tone pitch, because a **TR** Command is used in front of that



sectors. The **-END-** Command loops to the first line back. There is a TR+00 needed to reset the standard transpose. But before you can test this example you have to read that following chapter about sector editing.

2.5 Sector Editor

If we stay on a number in track, then we are able to switch in a specific sector by pushing **SHIFT + RETURN**. For example, the first position of track1 contains a 00. Then we will get into the Sector 00 on the right side. First we will see an empty sector:



CONTINUED NEXT MONTH

Commodore SX-64 Papercraft Paper Model

<http://www.erikschubach.com/vintage/sx-64-paper-model.php>



I wanted to do something fun for fans of the SX-64, so I took a couple of hours to create this paper model of my favourite vintage computer for you to print and assemble. I had my son build the first paper craft prototype so I could include some pictures of the finished product... and this this is the result.

So get out a sharp pair of scissors and some glue to assemble this whimsical paper model that you can show off to your friends and own a piece of computing history... or build a few to make your own army of mini paper craft Commodore SX-64 colour





CPU



Keyboard



Handle



Commodore SX-64
Executive Computer
by: EriksSchubach.com

Interview with Erik Schubach Designer of the paper SX64 cutout



In the Commodore Amiga line I currently own...

- (1) Boxed Amiga A1000
- (2) Boxed Amiga A500
- (3) Un-Boxed Amiga A500

(1) Boxed A600HD
As well as accessories for all of the systems such as external CD drives, floppy drives, network adapters and dozens of game disks.

Other non-Commodore systems in my collection include...

- (2) Boxed Timex Sinclair T1000 Computers
- (2) Boxed GCE Vectrex Arcade Systems

(1) Boxed NEC TurboExpress (TurboGrafx 16 Handheld)

(1) Boxed NEC TurboGrafx 16 (Holiday Edition)

(2) Un-Boxed NEC TurboGrafx
All with scores of accessories and games.

And from the 1970's...

- (1) Original Pong Console

Commodore FREE.

Please introduce yourself to our readers

Erik Schubach

Hi, my name is Erik Schubach and have been a programmer for over 25 years and currently manage a successful ecommerce website. I also teach search engine optimization and basic ecommerce workshops at local colleges.

CF. Can you tell our readers a little about your love of vintage machines

ES. I have been a fan of computers and video gaming since the 1970's. I was lucky to grow up during the emergence of video gaming and home computing. Commodore machines were a big part of that emergence, if not a dominating force.

CF. What machines do you currently have in your collection

ES. In the Commodore line I currently own...

- (1) Boxed Commodore Vic 20
- (1) Boxed Commodore 64
- (1) Un-Boxed Commodore 64
- (1) Boxed Commodore 64C (Test Pilot Special Release)
- (1) Un-Boxed Commodore C4C
- (1) Boxed Commodore SX-64 Executive
- (3) Un-Boxed Commodore SX-64 Executive
- (1) Un-Boxed Commodore 128

As well as accessories for all of the systems such as floppy drives, modems and dozens of game cartridges and disks.

(3) Boxed Milton Bradley Microvision Handheld Gaming Systems

(1) Factory Sealed Milton Bradley Microvision Handheld Gaming System

(1) Un-Boxed Milton Bradley Microvision Handheld Gaming System

CF. What started you collection of machines

ES. I was feeling nostalgic a few years back and wanted to revisit my youth by getting a couple of the old systems I had while growing up. So I was able to locate a Timex Sinclair and a Commodore SX-64. Once I started playing with them I actually re-lived the first time I wrote a program in Basic and typed "run". What a rush!

That just sort of flipped a switch in my mind and now I am an avid collector of all the systems I ever owned or played with as a kid. It's like an addiction.

CF. Do you own any other Commodore machines

ES. I own a few other Commodore systems I did not list above, but they are non-functional such as a Commodore +4 and various other models I use for parts.

CF. Is there something special retro computer related you are looking for?

ES. I am looking for 4 machines in the Amiga line, the A1200, A2000, A3000, A4000. I am currently working out a trade with one of the editors of www.RetroThing.com for an A2000 with a Video Toaster setup for one of my SX-64's and a few other pieces from my collection.

CF. Would you prefer to obtain a machine with all packaging and complete or is just owning the machine enough?

ES. If possible I like to get at least one boxed and one unboxed unit of each model. But I am happy just to own one regardless of if it has a box and packaging or not. I do like to keep the boxed systems for the sake of preservation.

CF. Do you actually use these machines?

ES. I most certainly use the systems, as I said before, I do like to keep boxed units for preservation, but the un-boxed units I enjoy firing up. It transports me back in time to when I saw and used these computers for the very first time.

The more I use them, the more I remember and the more amazed I am at the engineering feat of Commodore decades ago.

CF. Have you used any emulators of Retro machines, how do you rate them and do you think emulation is important part of preserving machines?

ES. I'm not much of an emulator man. I see the need for emulators as a last ditch effort to preserve a system as the last of the units begin to fail. There are still thousands of functional Commodore computers out there, they are not in danger of passing on into antiquity any time soon. So why get a cheapened emulated view of a system when you can get the whole retro experience by actually operating one of the machines and marveling in it's novelty?

CF. Can you briefly describe and explain the systems in your collection, All of my systems are un-altered stock units (I'm a purest).

ES. I am quite fond of my boxed SX-64, fully operational with all original packaging and accessories. This was a dream unit from my childhood and it excites me every time I fire it up for a game of Pacman or Defender.

Besides that I am quite proud of my Amiga A500 with 512k A501 memory expansion, external 570 CD drive and external Supra 40mb hard drive. It was the system I wanted to build in my teens but could not afford the external drives at the time, but now as an adult I have finally built.

CF. why specifically do you own these machines?

ES. Once again it comes down to the nostalgia. I am a programmer by trade and these machines are what started my love for programming. They set me on the path to make my passion a career. So it is logical that I honor that by collecting them as a form of thanks and to help me to remember where I came from.

CF. How much would you say your collection is worth?

ES. I've never really given that much though, perhaps two to three thousand dollars US, but to me they are priceless. It really isn't about the money.

CF. Do you actively follow the retro groups?

ES. I'm a lurker on a few online forums such as www.Amiga.org and www.LemonAmiga.com, they are great resources for maintaining and operating these great systems.

CF. Tell our readers about the paper sx64 they can download from your website

ES. I found the hard way how hard it is to get units that are fully operational. Out of eight units I purchased, I have only four operational. There are many unscrupulous sellers on sites such as www.eBay.com that tell you they work but then you get them and they do not function.

So I know there must be others out there who love the SX-64 but do not have one of their own yet. So I decided to make a model of mine that I can share with everyone until they can finally buy a real SX-64 of their own.

CF. How was the model created?

ES. I took photos of the unit from all sides and cleaned them up and assembled in a graphics program, with a little trial and error, I finally got it done to my liking and had my son assemble the first one for the photos I use to accompany the model. I then put it up on my website for anyone to download and enjoy.

CF. Do you intend to create other Retro computer models?

ES. Yes! I am slowly adding my entire collection to my website and I intend to have a paper model of every system I own. It is a fun way to give back to the retro-community. So eventually all of my Commodore and Amiga systems, as well as my other machines will be online. Just a few days ago I added a second paper model, the Milton Bradley Microvision here <http://www.erikschubach.com/vintage/microvision-paper-model.php>

CF. Would you like to plug your website a little

ES. There isn't much to say about www.ErikSchubach.com as it is just a hobby website that I built to share my interests with the world. I am slowly adding content such as retro-technology and sci-fi from the 1960's through the 1990's.

CF. Is there a question you think should have been asked but I didn't

ES. I think we just about covered it. I do thank you for taking the time to talk with me about my interests.

CF. If you had enough money to create/or invent something what would you invent/create and why

ES. I would actually like to create an eBay like website that caters specifically to retro technology. Building a community around it. Having help forums for any and all systems out there all in one place. Because I know how difficult it can be to find parts, maintain, or just get advice for a specific platform.

Multiply that by a hundred or so and you can see how daunting of a task it is for people who collect more than just one system. If that was not possible, than a company that makes new peripherals to support old systems like the Amiga. Just think how successful a company that can build replacement parts or say USB interfaces for the Commodore 64 or Amiga A500 would be with such a huge community of collectors out there.



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

Commodore Computer Club (UK) 1st meeting, 26th to the 27th July 2008. By Shaun B.

So, what really happened at our first ever club meeting then? Well, we'll start the night before, when I got a text from Paul "Tr00per" Green, who found out that, because of engineering works on the railways, his train had been put back some five hours, so instead of arriving into Preston for about 11:00 as agreed, he'd be getting there more like 19:00. So, unfortunately, he had to cancel, which was a shame as he was eager to show the demo of his shoot-em up, named Part34, to Nigel and Conrad/Onslaught/Samar Productions. Fortunately, he'd send me over the PRG, and I had it safely stored on my laptop.



Due to other commitments' then, we were down to just three attendees. Nigel was hosting, with myself and Conrad. Fortunately, my train was running on time, and I got to Preston and

waiting a few minutes for Nigel. Conrad had asked me to do some text for a scrolly in a demo that he was going to release at the meeting earlier in the week, so I was therefore eager to see the final results, but we also needed to get the boring stuff out of the way first.
<http://noname.c64.org/csdb/release/?id=68967>

After a few refreshments at Nigel's place, we started quickly with the agenda for the meeting. As no one had protested to any of my suggestions online, all of the rules and so on were agreed. Members can read up on the minutes in the google group and on the forums.
<http://groups.google.com/group/commodorecomputerclub>
www.commodorecomputerclub.co.uk

As there was no Allan (the chair person), I was acting chair. Lager was offered, and it was time for some real Commodore stuff.

Conrad was keen to see Metal Dust in action, so I loaded it from my HD and also fixed (I hope) his 1541-Mk II with a decent head align program. Conrad commented on some of the effects found in Metal Dust, and then he finished linking the text into his one-filer demo. Nigel was reluctant to actually type anything into the scrolly, so we sort of spoke on his behalf with him agreeing to the vague statements.

(EDITOR ok what should I have said oh I know don't forget the website
www.commodorecomputerclub.co.uk)

And it was finished and release. Shortly after, Conrad uploaded it to CSDb and also briefly detailed the meeting.

There were several lager spillages in the day (!!!) but Nigel's Commodore room is rather cozy to say the

least. In a way, it was a good job there were no more than three of us or people would have been lining up on Nigel's stairs to his room, with messages been passed down to explain what was going on, like a game of Chinese Whispers.



Nigel demonstrated the DC2N device for preservation purposes, and loaded Wizball, though we didn't enact the high score competition as, needless to say, I would have won it... well, maybe anyway.



Various games were played on the VIC-20 mega-cart from Francois (eslapion), and it was decided that Conrad was probably the best at playing Jelly Monster (a PAC-Man game) and indeed he had the high score for the day.

Then it was down to Conrad to write some example source code for Nigel and myself to observe. He did a scroller split at the bottom of the screen demonstrating a basic interrupt,



and commented and saved the source code for Nigel to have a play with. This was done using TAS on his Retro Replay.

During the evening, we went to the local Fish and Chip shop, with Conrad having quite possibly the biggest portion of chips that I've ever seen. It was quite a feat to eat through them, but then he had walked five miles to Preston station in the morning, so I guessed that he had burnt up some calories. I had proper chips and gravy, which they don't do in Birmingham as far as I can tell.

Intermittently, we popped outside for fresh air as Nigel's room was getting too warm with all of the technology running.

As the night drew in, we went on to play some DTV games after not having the correct screw driver to open up the unit to see how easy it was to install an MMC2DTV. I looked for the hidden files on the DTV and found out that the PAL version didn't have them. Oh well, that's cost cutting for you.

All too soon, I was starting to tire and needed sleep. I at least saw the MMC Replay in action, which was good, and Conrad saw something of the SuperCPU too, albeit Metal Dust only. I couldn't remember what I had on my HD to show him, so that was left.

The next morning, we were all up bright and early. It was naturally drawing to a close, but I am eager for the next meet up. Conrad again did some example coding, demonstrating flexible line distance on the C64, which allows you



to bounce the screen around quite easily. Again, he wrote some documented source code for us to learn from. I suggested that Nigel would have a full game or mega-demo written in a years time, which he laughed at.

The final action was Nigel tested big file copying between a C64 and a PC. He transferred a 5Mb file using a stock system and the IDE64 + PCLink. I was eager for this as I needed a way to move big PostScript files from my Commodore to the PC so that I could convert them to PDF for the newsletter, which is my next job.

All in all, despite being scant of attendees, there were a lot of positives from the weekend, and I'm looking forward to the next meet up. Members will be able to find the minutes of the meeting online in private member areas. For those of you interested in joining our usergroup, head over to www.CommodoreComputerClub.co.uk, or contact me at contact@CommodoreComputerClub.co.uk. We'll see you next time then.

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THE END