# Commodore Free

## Issue 45 October 2010
**Free to download Commodore magazine**
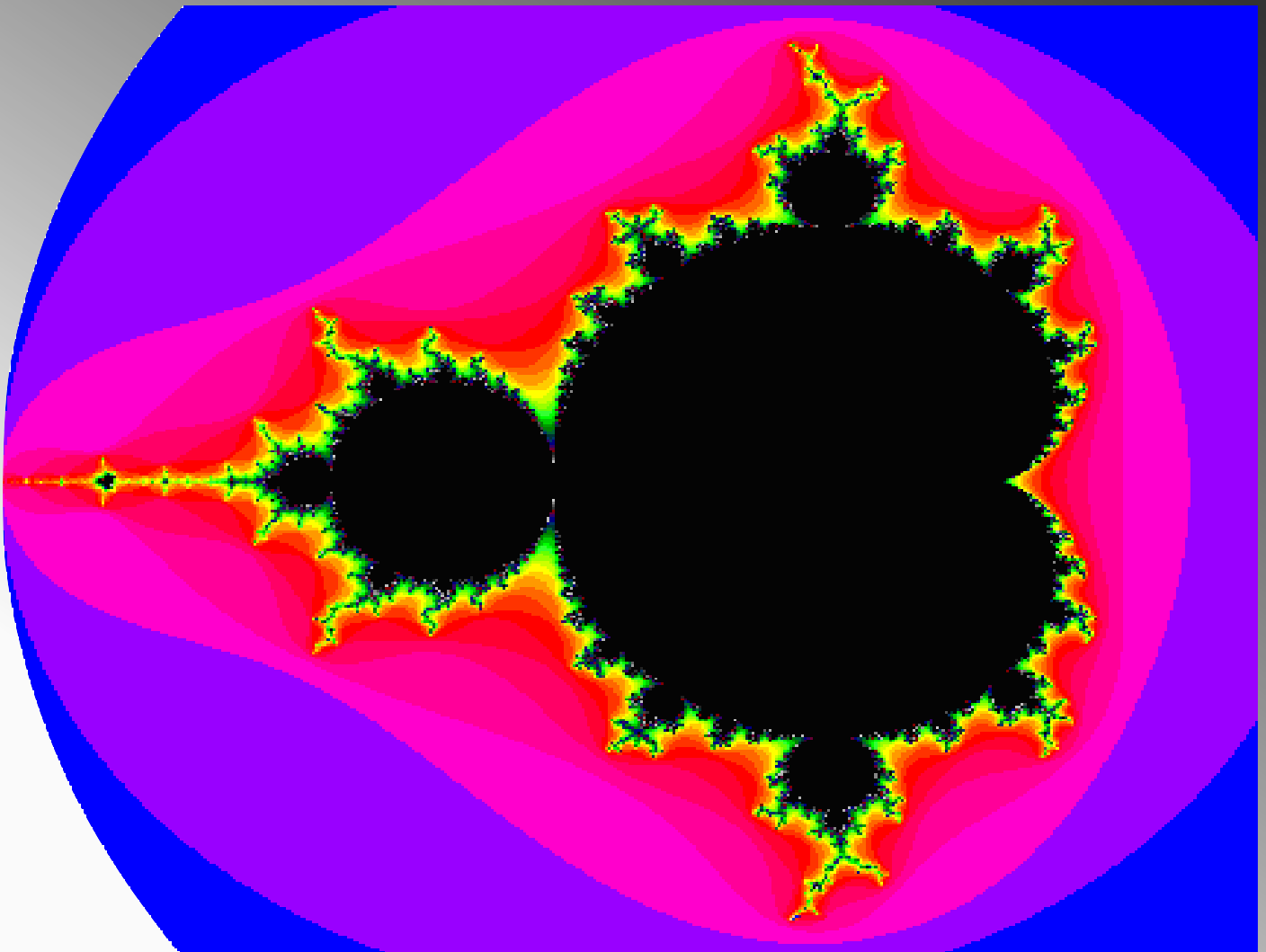**Dedicated to Commodore Computers**
**Available as PDF Text SEQ HTML and D64 image**
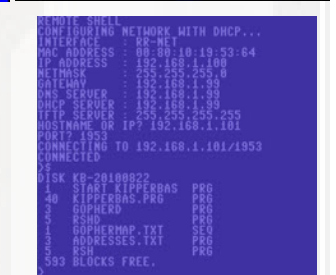**www.commodorefree.com**

Benoît Mandelbrot dies at 85

Dr Benoît Mandelbrot, the scientist who first posited fractal geometry and a key founder of chaos theory science, has died of cancer at the age of 85.

# CONTENTS

# EDITORIAL

Hi welcome again to another issue of Commodore Free

**I have a LIST**

This month we have more "commodore programming" examples from John Fielden and yes they are type in listings. John has sent in 6 type in listings for the Commodore plus 4 /16 Computers. Of course the Commodore graphics can't be reproduced in the magazine except for a scan of a printout, sadly we don't have this so what's included is an ASCII listing, this is an example

*$="{home}{down}*

You see that {home} is the home key on the keyboard and {down} is the cursor down key etc. If you are confused by these listings let me know, I could work on something better for the PDF version at least, it was left this way for the text, html and Disk versions of the magazine, let me know what you think about type in listings, do you still want this sort of thing to play with? Maybe you can improve the listings, or convert them onto other platforms; I would like to see listings broken down line by line with a full explanation of what is happening, mainly for my sanity but to help others who are dabbling in BASIC programming

**DOTBASIC**

Some time ago; Loadstar released a programming environment called DotBASIC.

The idea of DotBASIC was to provide a set up tools and commands accessible to the basic programmer harness more power from the machine than is possible with Commodore basic.

This issue see a tutorial about using DotBASIC to create a menu system to launch a few classic games. Some of you may know that the Commodore Free Disk magazine is written entirely in DotBASIC, and if you have taken the time to look at this version of the magazine; I am sure you will agree its very slick. The whole Application was written in a few days, and then tested and further details added. Each month Commodore Free text is added to the template in a very easy method to quickly form each issue, you may have noticed that the basic formatting is the same each month. If you love Basic and own a Commodore 64 I would urge you to investigate DotBASIC and while the application isn't free, it is available in a variety of formats to tempt even the poor mans pocket.

**CLUBS**

I Always find Computer clubs interesting, and so this month features an interview with the founder of [Commodore Computer Club – USA](#) so we have yet another CCC group! Of course this one would be CCC USA as the U.k club is CCC U.k. It's great to know that people can get together and share a passion in something, Whether that be game playing, preservation, operating systems or just the old favorite of mine "dabbling about" If you are in a group or club maybe drop me a message and I will print it on these pages so others can contact you, maybe I could create a club directory page (or similar) grouped into areas of the world.
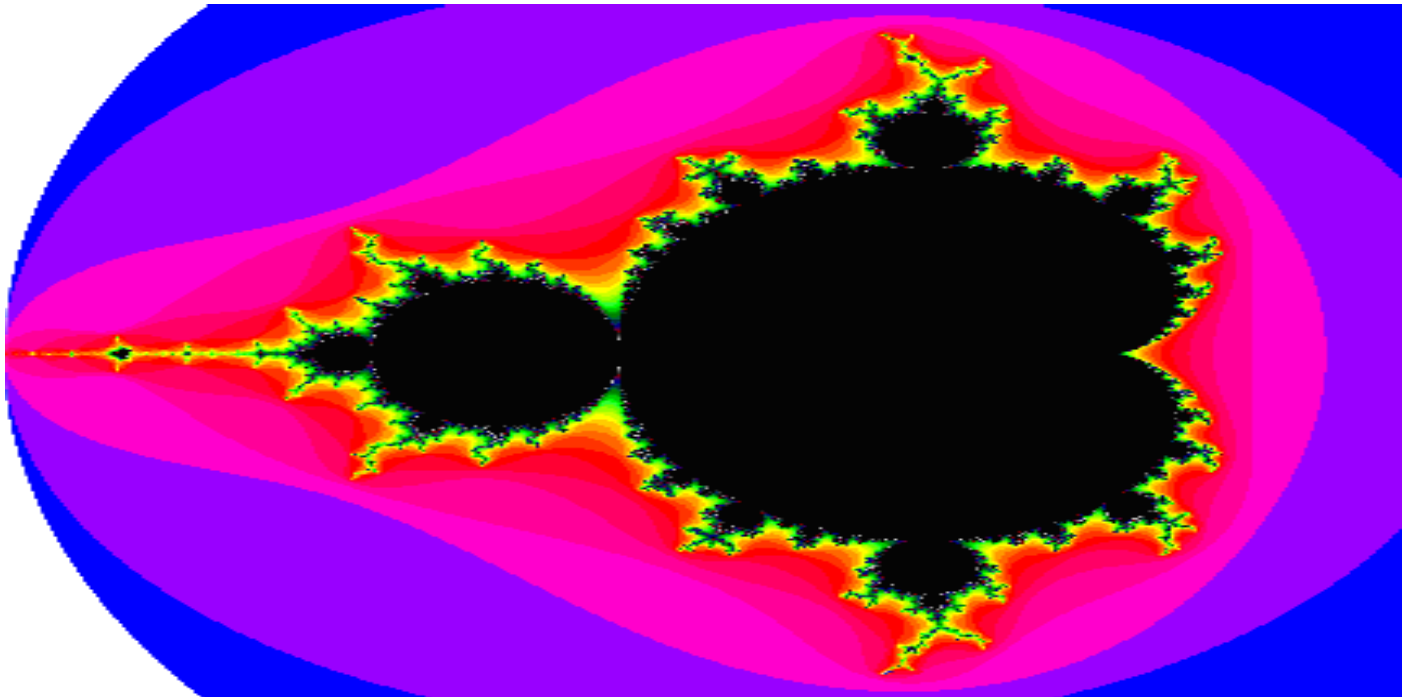
That's about it with the usual news items thrown in for good measure
Hope you enjoy the issue

Thanks for reading
Nigel
[www.commodorefree.com](http://www.commodorefree.com)

# NOW IN STOCK!

Psytronik Software is very pleased to present **They Didn't Quite Sell A Million** - a brand new compilation for the Commodore 64. The compilation contains FOUR complete Psytronik releases - **Sceptre of Baghdad**, **Archetype & Cops 3**, **The Shoot 'Em Up Destruction Set** and **Psykozone!**. Here's your chance to own FOUR Psytronik releases in one excellent pack.

The full colour glossy packaging is based on the famous **They Sold A Million** compilations released back in the 80's. This tape version of the compilation contains two tapes presented in a dual-cassette case and includes a full colour instruction sheet.

## SCEPTRE OF BAGHDAD:

**CYCLOPS** - the one eyed giant. **MEDUSA** - who will turn you to stone with just a glance. A burning desert, a shark infested river. All these things and more must be passed before the Caliph of Baghdad can recover the sacred sceptre and prove his right to rule his beloved country.

## THE SHOOT 'EM UP DESTRUCTION SET:

Fight in the air and on the ground in the slick sideways scrolling shooter **SILVERFISH**, deliver critical medical supplies in your cargo plane in **FLIGHT OF THE ALBATROSS**, battle in feudal Japan with sword and shuriken in **NUKENIN AND THE RONIN** and rid your home of an invasion of pesky insects in the splatter 'em up **INSECTOPHOBIA**





## ARCHETYPE & COPS III:

Two challenging games from the shoot 'em up MASTER, Alf Yngve! In **ARCHETYPE** you must make the journey to the **OTHERWORLD** ... To once again restore the harmony between **TARA** and **UISNECH** ... **COPS 3** - A city in **CHAOS**, criminals on the **RAMPAGE**, dinosaurs on the **LOOSE** - just another day on the beat for the **COPS!**

## PSYKOZONE:

In the twenty first century the United States have collapsed into a myriad of independent regions. These are connected by a net of lethal expressways known as the PSYKOZONE. You must battle through gangs of road warriors and genetically-enhanced psycho-bikers in order to reach the safety of the pacific ocean. Can you survive the **PSYKOZONE?**

# NEWS

**1541U2 Update 2.0RC9**

-----------------------------------------------------------------------

r26 | gideonz | 2010-10-11 00:11:44 +0200 (Mon, 11 Oct 2010) | 9 lines

Release 2.0RC9: Some debug stuff that appeared in menu removed!

-----------------------------------------------------------------------

r25 | gideonz | 2010-10-10 23:34:02 +0200 (Sun, 10 Oct 2010) | 6 lines

- Tape Record implemented
- Capabilities register added (for V1 compatibility later)
- Initial version of memory controller for V1 hardware added
- Global menu items replaced by menu objects that can generate menu items based on the object's state.
- Some bug-fixes..
(I suppose this could be the official 2.0RC9 release!)
-----------------------------------------------------------------------

r24 | gideonz | 2010-10-09 02:21:50 +0200 (Sat, 09 Oct 2010) | 3 lines

Christmas lights eliminated in many places..
64K AR/RR Ram support added; as well as made to pass CountZero's test program with 71 points.
Freezer bug is NOT yet tackled.
-----------------------------------------------------------------------

r23 | gideonz | 2010-10-08 17:59:39 +0200 (Fri, 08 Oct 2010) | 2 lines

Preliminary USB hub support added (not finished)
Tape recorder software file created, but is still a copy of playback. Needs to be implemented.
-----------------------------------------------------------------------

r22 | gideonz | 2010-10-08 17:51:48 +0200 (Fri, 08 Oct 2010) | 3 lines

IEC processor implemented
Some clean up done in USB code

-----------------------------------------------------------------------

r21 | gideonz | 2010-10-02 06:59:09 +0200 (Sat, 02 Oct 2010) | 1 line

Work in progress - DO NOT USE THIS VERSION FOR UPGRADING - IT IS UNTESTED!
-----------------------------------------------------------------------

r20 | gideonz | 2010-09-25 06:03:33 +0200 (Sat, 25 Sep 2010) | 1 line

C2N Recorder added to Fpga makefiles. (not for 250e yet)
-----------------------------------------------------------------------

r19 | gideonz | 2010-09-25 06:02:54 +0200 (Sat, 25 Sep 2010) | 2 lines

TAP Encoder added.
ZPU altered for guaranteed IRQ handling (not used yet)
-----------------------------------------------------------------------

October 10, 2010
**Quick Project Status**

- It is now possible to order accessories for the 1541U-II. This is possible through the "Order Status" page. In case your unit has already been shipped, please create another order of 0 (zero) 1541U-II units, and add the accessories to that order.
- Tape connector boards have been received. One board clicks under the 1541-II case; the other holds the 2x6 pin tape connector and tape feed-through. The two boards connect to each other using a standard 10-pin flat cable. The part that clicks under the 1541-II case can also be used to power the cartridge for stand-alone mode (requires software update). Problem: the feed through doesn't fit well (worst on C64C), as the Commodore tape plug is thicker than expected. I will order boards that are a bit longer, delay: approx 8 days. See pictures here on this page.

- It's now possible with 2.0RC9 to capture tape data to a .TAP file!

- Some serious issues with component availability. The FPGAs were confirmed for 4th of October, but they have not arrived yet; more news from the supplier expected on Oct 12.

- Payments have been processed until October 1, 2010.
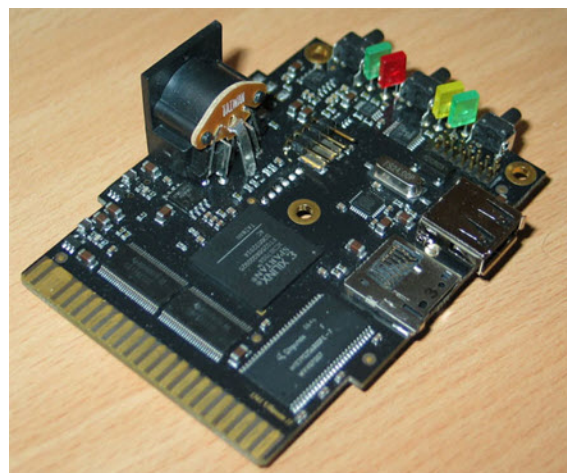
- Payments for the new batch are now accepted. I will put increased attention on received payments in the coming weeks. Please make your payment before the end of October.

- Last firmware version: 2.0RC9 is now downloadable from the download page. See the download page and read what issues have been addresed!

Ultimate-II is open source!
http://www.1541ultimate.net/content/

# NEWS

**Protovision October UPDATE**

There is a new update at Protovision. This time the headlines are:

- The Richard Joseph Tribute
- GamePro reports about homebrew developing labels, including Protovision
- It's Magic 2 Trailer
- New cable: Mini DIN (S-Video) Cable for LCD TVs now available
- Hardware Availabilities
- Protovision news as RSS Feed
- Protovision at X Party 2010
- Pricelist updated
- rr.c64.org relaunched and @H:Replay Resources,2010
- Action Replay & Clones Acid Ramtest v0.1 released
- 4 Player Interface Tester

From more information visit the website
www.protovision-online.com

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**JIM SCABERY'S CLOSE-OUT ON COMMODORE/AMIGA SOFTWARE**

TO       COMMODORE FREE
FROM    Robert Bernado
SUBJECT Jim Scabery's close-out on Commodore/Amiga software

Jim Scabery, Portland, Oregon's last Commodore dealer, is having a close-out on Commodore and Amiga software.  To see the listing of Commodore software, go to

http://retro-link.com/smf/index.php?topic=512.0  (titles A to C)
http://retro-link.com/smf/index.php?topic=513.0  (titles D to G)
http://retro-link.com/smf/index.php?topic=514.0  (titles H to L)
http://retro-link.com/smf/index.php?topic=515.0  (titles M to P)
http://retro-link.com/smf/index.php?topic=516.0  (titles Q to S)
http://retro-link.com/smf/index.php?topic=517.0  (titles T to Z)

To see the listing of Amiga software, go to
http://retro-link.com/smf/index.php?topic=509.0  (titles A to F)
http://retro-link.com/smf/index.php?topic=510.0  (titles G to P)
http://retro-link.com/smf/index.php?topic=511.0  (titles Q to Z)

Truly,
   Robert Bernardo
   Fresno Commodore User Group
   http://videocam.net.au/fcug
   The Other Group of Amigoids
   http://www.calweb.com/~rabel1/
   Southern California Commodore & Amiga Network
   http://www.sccaners.org

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**Catweasel Mk4 for AmigaOS 4 support page opened!**

Here is a website devoted to the support for the Catweasel Mk4 driver progress by Ian Gledhill

http://www.retroreview.com/iang/Catweasel/

I want to keep it up to date with changes that I make, such as formats being added and stuff like that. I'm no web designer, so don't expect anything flashy, but it should help.

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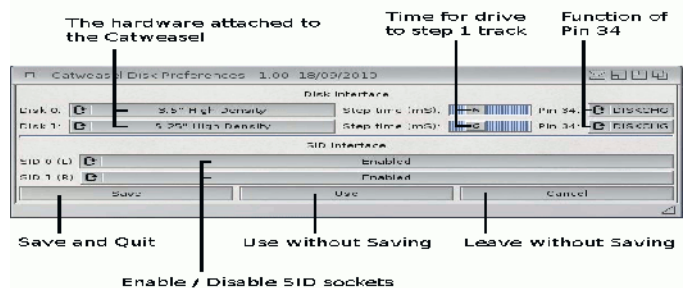
**First Video of AMC for AmigaOS 4 (SAM)**

http://www.youtube.com/watch?v=0em51_XIALI

Thanks to Trevor Dickinson and especially Andrea Palmaté (he helped a lot) we can show you the first Video of AMC running on AmigaOS 4.x. If everything goes fine (think so) you will be able to see it live on a X1000 at the Amiwest Event.
Please visit Fabio Falcucci's developer blog for more INFO's about AMC. http://amcdev.wordpress.com/media/

Best Regards, Pascal Papara
www.aros-broadway.de

# NEWS



**VIVA AMIGA DOCUMENTARY UPDATE**
www.amigafilm.com

New Updated Official Movie Trailer, now in HD - Viva Amiga Teaser Trailer Version 1
New Official Blog - http://vivaamiga.wordpress.com/
New Updated Bios of the Filmmakers - http://amigafilm.com/The_Filmmakers.html
New Film Pre-Ordering http://amigafilm.com/Pre-Ordering.html

We're now taking names of people who would be interested in pre-ordering the film! It's probably going to be about $20-25 US for a region-free DVD with extras galore. We will be subtitling in French, German, English and Spanish, possibly others. Packages with t-shirts and other merchandise will be offered as well.

We'd like to make it clear that despite the polished look of the teaser trailer, this is an independent film produced by an Amiga user and mostly non-paid staff.
Your support means everything to us and we thank you for your interest.

We will keep you posted as the film develops. It is currently still in production.
Please send an email with the word "Pre-order" in the subject heading to: vivaamiga@gmail.com

You will be under no obligation. Just on our "pre-ordering" mailing list.

If you're interested in helping out with the production, send an email to vivaamiga@yahoo.com. We are especially looking for high-quality video of anything related to the Amiga and Commodore. We love VHS.

*COMMODORE FREE*
*Email sent to pre order list, I couldn't resist this*

**VINCE CLARKE**

Ok so this isn't Commodore related in anyway!
However......

Sound Programming genius Vince Clarke has started a video series about Analogue keyboards on his website the link is here http://www.vinceclarkemusic.com/video/index.html

the main website here
http://www.vinceclarkemusic.com/intro/index.html

Now I have always loved Vince Clark's music especially the older Analogue sounding stuff, Early Depeche mode, Yazoo even some of his experimental collaborations and some of the Erasure music.

Someone I am sure will find this interesting - I know I did when I found it

To my knowledge Vince never used a Commodore64 but did use a BBC micro computer as a sequencer, this was also seen on some of the Erasure tours.

you may also find this link useful if you're a Vince fan
http://www.youtube.com/watch?v=wQthcAK9kAg
http://www.youtube.com/watch?v=rdP97lNHoCY

Now of course its all hi-tech, done with soft synths
http://www.youtube.com/watch?v=dTNKBTLgYf4&feature=related
http://www.youtube.com/watch?v=aoW8_ZExnB0&feature=related

# NEWS

**NetSurf 2.6 web browser released for OS4**

The NetSurf developers are happy to announce the immediate availability of NetSurf 2.6. This release contains many bug fixes and improvements. It is available to download from http://www.netsurf-browser.org/

Here is a change log detailing the important changes in this release:

**Core / All**
- Improvements to float positioning.
- Fix absolute positioned inlines.
- Improve handling of percentage margins and paddings on floats.
- Fix several memory leaks.
- Rationalised memory allocation functions.
- Updated SSL root certificates.
- Fix handling of PNGs with zero data.
- Moved input handling into content handlers.
- Simplified browser window module.
- Fix table borders specified in em/ex units.
- Improved CSS content handling.
- Don't try to draw zero size images.
- Simplified and fixed save complete feature.
- Reduce frequency of cache clean attempts.
- Improve and optimise rendering of borders in HTML.
- Fix URL comparison issue.
- Improve object handling in HTML.
- Fix absolute positioned root element.
- Rewritten file: fetch handler for local URLs.
- Much improved directory listings for local file: paths.
- Improve handling of binary data in plain text renderer.
- Fixed cache expiry problems.

- LibCSS library (CSS parser and selection engine):
+ Allow stylesheets to be used in multiple contexts simultaneously.
+ Fix possible stylesheet reuse crash.

**RISC OS-specific**
- Increased maximum allowed value for memory cache size option.
- Update 'about' page to include licences for linked components.
- Fix layout to paper width when printing.
- Fix screen redraw after printing.
- Enable sideways print option.

**GTK-specific**
- Avoid potential use of NULL pointer.
- Fix for old versions of GTK.
- Improve internationalisation support.
- Improve handling of bitmap opacity.
- Fix redraw issues with non-HTML content.
- Cleaned up menu generation and handling.

**BeOS/Haiku-specific**
- Fix build.
- Fix mimetype acquisition for local files.
- Improve handling of bitmap opacity.
- Enable knockout rendering optimisation.
- Improved polygon plotter accuracy.
- Fix colours on copy to clipboard.

**AmigaOS-specific**
- Fixed menus when switching tabs.
- Improved font handling.
- Text kerning.
- Update for OS4.1 Update 2.
- Simplify building of Cairo and non-Cairo versions.
- Fixed scrollbar handling.
- Better NetSurf icon.
- Improve installer.
- Better support for ARexx commands.
- Context sensitive cut/copy/paste.
- Fix clipping for non-HTML contents.
- Option to show icon under drag saves.
- Bitmap plot optimisations.
- Now uses core fetcher for file: URLs.

**Framebuffer-specific**
- Framebuffer toolkit rationalised.
- Improved scrollbar support.
- Added X surface handler.
- Improved scheduling.
- Fixed redraw issues.
- Improved key press handling.
- On screen keyboard.
- History window.
- Configurable window furniture size.
- Support for scaled bitmap plotting.
- Factored out common plot code for rendering at different bpp.
- Load and save cookies file on start and quit.
- Improve handling of bitmap opacity.

Also included are many smaller bug fixes, improvements and documentation enhancements.

**the 1541 Ultimate v2 COMVEX Demo**

From July 25, 2010 at the Commodore Vegas Expo v6. Josh Shiflet gives a presentation on the 1541 Ultimate v2, the latest incarnation of this Commodore card drive

http://www.blip.tv/file/4083741

# NEWS

**4GB CF IDE HARD DISK www.amigakit.com**

**Announcement from AmigaKit**
We are happy to announce that we have just secured another new batch of 4GB CF IDE hard disks prepped/formatted ready for Amiga 1200, 600 or 4000 (specify on ordering from AmigaKit store). This batch is currently available at a reduced special price for limited time period.

**The advantages of our drives are:**
- completely silent operation
- responsive drives that run cool
- fully prepped and formatted with our OS-Install installation software pre-installed
- high quality media fully compatible with Amiga
- A1200 / A4000 versions can be ordered prepped/formatted with SmartFileSystem (SFS)

Direct Product Links
USA Store:
http://www.amigakit.us/catalog/produ...roducts_id=883
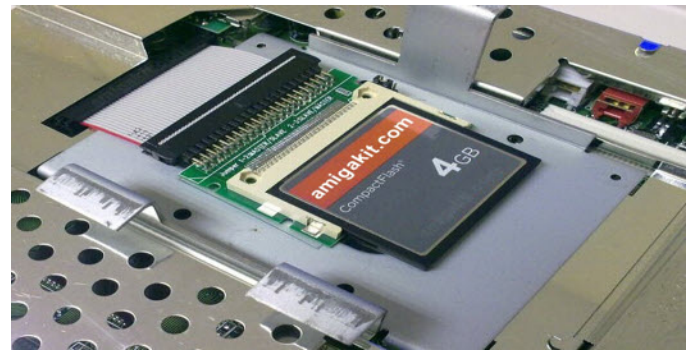
UK Store:
http://amigakit.leamancomputing.com/...roducts_id=883

European Store:
http://amigakit.leamancomputing.com/...roducts_id=883

Canadian Store:
http://amigakit.leamancomputing.com/...roducts_id=883

www.amigakit.com  Amiga Computer Store



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**YAPE 10 YEARS OLD**

The Commodore Plus/4 emulator YAPE celebrates its 10 year anniversary

Exactly 10 years has passed since the first public alpha (or rather: WIP) of Yape saw the light of day. It is just as unbelievable as it can get... sheesh. It started off as an attempt at a more intelligent disassembler when I realized how much fun it really is to learn the hardware AND C++ programming at the same time while dealing with my all time favourite hobby. I thought this anniversary would be also a nice opportunity to abandon the rather clumsy versioning I have been following in the past. Anyway I have not got much time to make a long rant here, so you will be spared :-)

**The main changes in the aptly named - 10 years old - 1.0 compared to 0.86 are as follows:**
- 32-bit and automatic bitdepth option in fullscreen mode (8 bit full screen mode might be slow under newer Windoze's)
- copy & paste to/from the clipboard now respects upper/lower case mode

- partially implemented 48 bps mode of the T6721A speech LSI
- G64 image support is no longer read only (yay, at last)
- reading from open address space
- plenty of bugfixes (drive, TED, autostart, monitor etc.)

Of course 1.0 not to mean Yape is ready and will be abandoned. A piece of software never really is. Head on over to the  downloads  section
http://yape.homeserver.hu/download.htm  while it's still warm.



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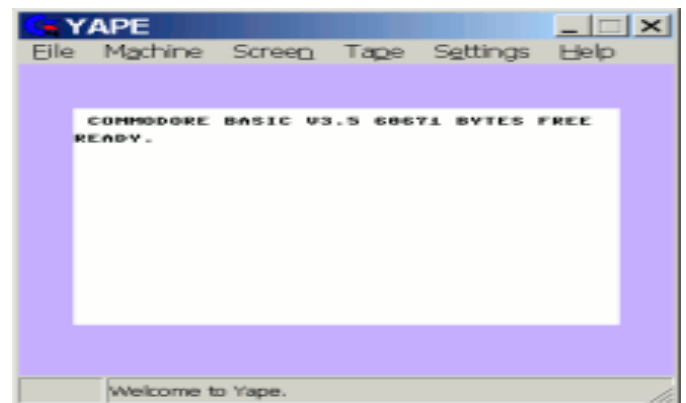
**VIC 20 RELEASE BALLS TO WALLS**

http://sleepingelephant.com/ipw-web/bulletin/bb/viewtopic.php?t=4769

The initial release of a completely machine language game. "Balls to the Walls" runs on a Vic with 16K of memory. If you own a Blackberry this game may seem 'vaguely familiar.' <grin> There are 34 screens in the first round. If you can get through all 34 they repeat at a much faster pace. There are all sorts of hidden 'things' throughout the game. There are special functions, ammo, etc. Have fun.

**The program can be downloaded here:**
http://home.comcast.net/~aedb15t/balls%20to%20the%20walls.prg

# NEWS

**A BIT OF COMMODORE HISTORY HAS BEEN PRESERVED**

Thanks to Raymond Day, a bit of Commodore history has been preserved.  In 1989 he video-recorded a session that he had while on-line at QuantumLink, the Internet service for Commodore users.  He recently dug out the VHS tape of that session, rendered it to a video file, and sent it to me.  It is now available for all to see!  Entitled "The Real Q-Link -- September, 1989", the file is at

http://blip.tv/file/4138357

This unedited video runs 26 minutes, and in it you can see the screen of what Raymond is viewing -- going through messages, choosing/listening to SID music, and downloading/viewing files.  Except for the SID music that runs at about the 22-minute mark, the only thing you hear is Raymond typing on the Commodore keys. For those who have never seen what Q-Link was like or who want to relive the Q-Link experience, this video is a must.

        Waiting for the next batch of
        CommVEx v6 2010 videos to be uploaded,
        Robert Bernardo
        Fresno Commodore User Group
        http://videocam.net.au/fcug

From Raymond Day. He wrote, "I think I used a VCR with stereo, and I know I had S/video to my Commodore monitor and must of did composite in the VCR with one side the Commodore sound and the other a mic so you can hear me typing. I did it from log on to log off. I look at a message of mine, then download some GEOS programs on a 1581 disk. Go in the music room and play music and type a little, but you can see the other typing a lot. I get off-line and look at some pictures I downloaded from Q-Link."



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**SIDizer VST Instrument**

SIDizer is a state-of-art emulation of legendary SID chip in a form of a modern software synthesizer. Using circuit modelling technology nearly all unique features of two versions (6581-8580) of SID chip among their famous flaws are accurately modelled. This emulation focuses on simulating nonlinear character of SID filter and mimicking special 6581 distortion that mainly influence the alternation of filtered signal in a real SID chip. It offers additional envelopes, LFOs , mod matrix and a routable bit-cruncher for adding extra lo-fi sound quality. SIDizer GUI is inspired from HyperSID that offers easy tweaking for all parameters on a single page. It is not only a powerful instrument for creating chip-tune style but it can produce a unique type of analogue sound coloured with harmonic distortion that is suited for creating bass, lead and drum sounds.

**Main features:**
-3 oscillators offering 8 waveforms: Saw, Triangle, Square, Pitched noise, "AND" combinations of them
-Oscillators special features: ring, sync, phase sync, Sqr PW, level
-Selectable 6581-8580 D/A distortion
-3 Amp envelopes ADSR
-12 dB (LP & HP), 6 dB BP SID modelled Filter
-Best matched Exponential-fitted curves for 6581-8580 filter frequencies
-Simulating 6581 half wave filter distortion
-1 Filter envelope + key track for filter freq
-2 LFOs each with 4 simultaneous outputs offering sync and retriggering option
-1 Mod envelope

-Versatile Modulation matrix
-Bug-generator module for reproducing famous bugs: oscillator leakage, ex-input noise
-Bit Cruncher with pre and post filter route option
-Advanced 8 step C64 like arpeggiator
-Master: Pitch and Mod wheel, Porta, Spread, Reverb, Delay
-Easy to use GUI
-Factory soundbank created by Torben Hansen (aka Metal of Vibrants)

http://www.hypersynth.com/sidizer.html
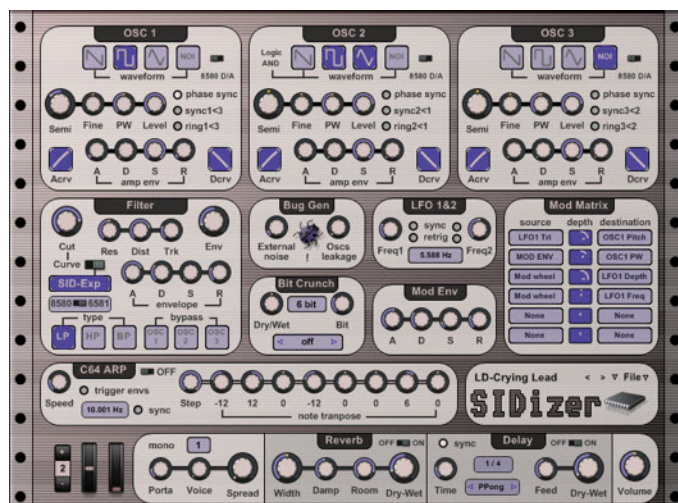
# NEWS

**BASIC ON BAILS!**

* Do you want the harness your C64s awesome 1 MHz compute power to build state-of-the-art web applications?

* Are you bored of OOP frameworks with structured exception handling and pine for a 40x25 IDE with good old fashioned GOTOs?

* Do you wish you could claim 30 yrs experience with a web development language at the next coding job you apply for?

Then you need.... BASIC ON BAILS!

```
10 DHCP: REM SOCK ME SOME IP CONFIG, MOFO!
20 HTTPD 80, 100
100 !"<h1>LOOK MA! WEB STUFF!</h1>"
110 !"THIS MESSAGE WAZ BRUNG 2 U BY BASIC ON BAILS"
120 YIELD
```

Act now and for no extra charge we'll chuck in Kipper BASIC :
command
line PING, TFTP, NETCAT, and other TCP socket goodness

http://lyonlabs.org/commodore/kb-bob/index.html

```
REMOTE SHELL
CONFIGURING NETWORK WITH DHCP...
INTERFACE    : RR-NET
MAC ADDRESS  : 00:80:10:19:53:64
IP ADDRESS   : 192.168.1.100
NETMASK      : 255.255.255.0
GATEWAY      : 192.168.1.99
DNS SERVER   : 192.168.1.99
DHCP SERVER  : 192.168.1.99
TFTP SERVER  : 255.255.255.255
HOSTNAME OR IP? 192.168.1.101
PORT? 1953
CONNECTING TO 192.168.1.101/1953
CONNECTED
>$
DISK KB-20100822
1     START KIPPERBAS    PRG
40    KIPPERBAS.PRG      PRG
3     GOPHERD            PRG
5     RSHD               PRG
1     GOPHERMAP.TXT      SEQ
3     ADDRESSES.TXT      PRG
5     RSH                PRG
593 BLOCKS FREE.
>
```

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**Origyn Web Browser 3.30 for AmigaOS 4.x. Released**

currently in the OS4Depot upload queue.

**Changelog:**
3.30 (5.9.2010)
- Disabled support for resizing the window from Javascript again if TABS is enabled (bugs.os4depot.net issues #540 and #560).
- Added support for external tab close image ("closetab(|_s|_g)", #504).
- Fixed #545 "DSI on Google site".
- Fixed #555 "Mapmyrun.com crashed on map".
- Fixed #546 "java script: Alt- / Ctrl-Key combinations not fully working".
- Fixed #549 "java script: Change of cursor using .cur not immediately".

- Fixed #547 "CSS attribute "overflow: hidden" not supported".
- Fixed #538 "Local files don't work on my jfx partitions (bug #474)".
- Fixed #561 "Date format is not local".
- Fixed #422 "OWB crashing on resizing window (for a while)".
- Fixed #564 "OS4 repeatedly locks-up with Reload/Home button".
- Fixed #542, #559, #565 "OWB window disappears on certain sites".
- Fixed #331 "Complete system freeze on closing(tabs) while menu is open".
- Fixed #340 "GrimReaper when posting on forum.wiibrew.org".
- Fixed #370 "Crashing closing OWB".
- Fixed #442 "Surfing this site in 'Liste'-mode crashes OWB".
- Fixed #541 "Forum complains about posting twice every time".

---

**ZoomFloppy to be demoed at ECCC 2010**

Jim Brain and Nate Lawson demo the ZoomFloppy, a new device for accessing Commodore floppy drives from a PC via USB. The firmware, known as xum1541, has been available since fall 2009 for those who want to build their own board, but the ZoomFloppy is the first device that will be a complete product offered for sale.

The ZoomFloppy has a number of features beyond simple disk access, which is implemented in OpenCBM. It can also nibble protected disks using a parallel cable and nibtools. It is software-upgradeable and some very interesting but secret features are planned for the future.

We plan to bring a laptop with nibtools and a 1541 with a parallel port installed. It will have a batch file that automates the process of nibbling. Attendees can just plug in a USB stick and hit a key to get an image of their floppy.

So bring your rare floppies to be backed up. All images will also be sent to C64Preservation.com for archival unless you request otherwise.

http://www.root.org/~nate/c64/xum1541/

http://jbrain.net/

# NEWS

## C64SD v2.0

Manosoft released an advanced version of his C64SD v2.0. The C64SD emulates a IEC disk-drive and uses an SD memory card to store your diskette images in various formats (.d64, .d71, .d81). The upgraded version has an aluminium case, an extra IEC connector to connect an external disk-drive. Its also possible to connect a second C64SD (in dual mode).
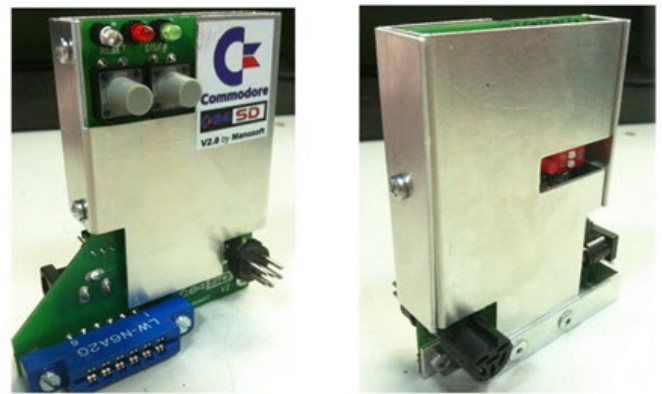
What 'the C64SD ?
Circuit Plug & Play device that emulates the floppy drive of a Commodore machine you Just need an SD (secure digital) card to uploaded package of games or other software Turn on your Commodore and LOAD your favourite games Rekindle your memories .....

http://c64sd.roxer.com/



## THE SEUCK VAULT - UPDATED

Another new batch of SEUCK games enters the Vault, including the recently recovered Spitti's Search, Xenonoid, Casanova and more. With thanks to Mason of C64Heaven for all his help.

The next batch of games will be the planned large Amiga update.

http://www.seuckvault.co.uk



## ORIG. TAP IMAGE: STRIKER IN THE CRYPT OF TROJAN

For preservation purposes c64endings, has created a .TAP file from the original tape of the "Stryker in the crypt of Trojan" game by Codemasters.

Before this release there doesn't seemed to be a original .TAP version of it anywhere on the Net.

C64endings used the DC2N for the conversion.
http://www.c64scene.com/c64/wpcontent/downloads/STRYKER-vm.tap



## PLUS4: BOTTICELLI BILDERDISK 35

The world of Plus/4: Erich/Unlimited just released Botticelli Bilderdisk 35. The new addition to this series continues the usual way: you get to enjoy two disk sides worth of converted multicolour pictures, using the Magica driver. Check it out and enjoy!
http://plus4world.powweb.com/dl/demos/b/botticelli_bilderdisk_35.zip

# NEWS

**Mediator Multimedia CD UP 2.0 released**

The Mediator Multimedia CD 2.0 update for registered users of Mediator PCI 3/4000T, Mediator PCI 4000D, Mediator PCI 4000Di, Mediator PCI 4000, Mediator PCI 3000D, Mediator PCI 1200 TX, Mediator PCI 1200 SX, Mediator PCI 1200LT4, Mediator PCI 1200, Mediator PCI 1200LT and Mediator PCI ZIV busboards, has been released today.

The Mediator Multimedia CD UP 2.0 includes a new version of the gfx drivers for the Radeon 9200/9250/9000 series cards for all Mediator models:

• Radeon.card ver. 2.12

Due to the new initialization procedure, the new Radeon driver supports all models of the gfx cards from the Radeon 9000, 9200 and 9250 series (based on the ATI RV250 and RV280 chipsets). However, only "5-Volt only" versions of the Radeon cards can run in some Mediator models. To locate the Radeon card suitable for your Mediator model, co ntact the ELBOX Support Department. http://elbox.com/about_cu.html

In the A3000 and A4000 computers, the new gfx driver adds the part of the Radeon gfx cards SDRAM/SGRAM memory which is not assigned to the P96 system to the Amiga memory system. This memory works as regular Zorro III memory but it also can be simultaneously accessible in the DMA mode by any PCI busmaster cards. This opens the way to enhance performance of some PCI cards at lower CPU usage.

You can use simultaneously use Radeon and Voodoo gfx cards in your system, connecting each of them to a different monitor. If you want to use only one of them as a gfx card, you can add even the whole memory of the other one to the Amiga system.

In case of the Radeon cards equipped with the DVI output, the Amiga screens are simultaneously available on both outputs (analogue VGA and digital DVI). The Radeon DVI output operates not only with each monitor equipped with digital input, but also with any LCD or PDP TV with HDMI input. In case of any LCD, PDP panels, adjustment of the Amiga screen to the native TV or monitor resolution is strongly recommended. To facilitate it, we have provided in the RadeonGuide the reference P96mode settings for the following native monitor resolutions: 1360x768, 1680x1050, 1920x1080, 1920x1200 and 2560x1600.

If you do not have Mediator in your A3000 or A4000, do not miss the special offer for the newest version of the Mediator boards with the Radeon card with 256MB memory and a DVI output.

The Mediator Multimedia CD UP 2.0 includes also a new version of the gfx drivers for the Voodoo 5, Voodoo 4, Voodoo3 and Voodoo Banshee cards for all Mediator models:

• Voodoo.card ver. 4.30

In A3000 and A4000, the new gfx driver adds the part of the Voodoo gfx card SDRAM/SGRAM memory which is not assigned to the P96 system to the Amiga memory system. It has exactly the same features as the Radeon card memory.

The update includes also new versions of:

• pci.library ver. 9.4
• fm801.audio ver. 4.14
• sb128.audio ver. 4.20
• mixer.library ver. 1.11
• FastEthernet.device ver. 1.24
• tv.library ver. 4.13
• tv.vhi ver. 1.5
• Virge.card ver. 1.13

The developer documentation for tv.library and mixer.library is enclosed with the MM CD 2.0.

If you are interested in the new updated MediatorSDK, contact ELBOX Developer Department. http://elbox.com/about_cu.html

Information on the current versions is available in the DOWNLOADS http://elbox.com/downloads.html  Mediator section. http://elbox.com/downloads_mediator.html The current list of supported PCI cards is available in the Mediator Driver Guide http://elbox.com/mdg.html . Information about Mediator-related sources you will find in the COMMUNITY section. http://elbox.com/community.html

---

**ACID 64 Player Pro v3.04 released**

A new version of ACID 64 Player Pro has been released. It can now play SID tunes via JSidplay2 and JSidDevice.

Check out all improvements and fixes at:

http://www.acid64.com
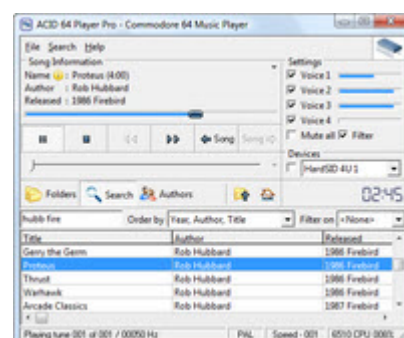
# COMMODORE PROGRAMMING

**BY John Fielden**

### Flags

I see now why the exalted Prof. Andrew Colin resorted to not using the Graphics screen in Part 1. of his An Introduction to BASIC. I am still looking out for part 2 in the hope that the required answers may be revealed. Until then, observe for yourselves the failings of the processor. This may only be within BASIC but we/I won't know unless a book can be found on c16/plus4 Assembler/TedMon. that covers graphics etc. (Or of course I am still looking for An Introduction to Basic part 2. of Andrew Colin, which may correct my short comings)

### Maths

Being about as much use as a submarine at an airport on this subject. I have completely relied on a books for all the programs on this subject. In programs measuring time converting from decimal numeric's, math formula has been avoided where possible. It is also advisable to use alternatives where formula conversions aren't completely accurate, for those with a more than a passing interest. Besides Machine Code accesses, Mathematics is yet to be fully explored in this series.

### Restore

The theme of my pages in this issue has become 'bugs I don't understand' where rarely has an issue gone by where there hasn't been some form of debugging (usually arising out of need!). Feeling powerless that i am unable to do anything about these. I happened to remember what turns out to be a confusion of cross talk with different machines. I, while dreaming of owning a 64, still very much appreciated/ing The Sixteen and trying to learn as much as I could/can. As the emulator, Yape has no qualms, though this is a plus4 emu. So it may either be only a problem in the c16, or could be something to do with the old unexpanded BASIC of the c64 that the person I was speaking to owned. Before testing, anything deliberate had been dismissed, though school was full of attempts to confuse still I wonder whether it was true of older computers -pre-C64?. If so, It gives hope that the error/s shown in Flags etc. may be inherent only in basic. Though, I can't promise as I don't yet know much about machine code.

Restore Counter: Is a more work related test, and counts as the command gets to the command in question. My volume is switched off as I write in windows. I can honestly say it is still running in the background at over 17000+ passes! This test utility won't work on the c64 though. So it is good practice to have a back-up counter. As shown in the demo included.

### code converter

While on the subject of things I don't understand. Assembler or Assembly Language has always remained a great mystery and fascination, ever since this love affair with computers began. Here's a program that converts Decimal, Hex., and Binary. And what's more, as far as I know...IT WORKS! The c16/+4 with their extended BASIC are ideal for this type of program! (Also, This utility should work on the even more extended c128's.). So, as far as debugging goes. Gone are the hours wondering whether it is a mathematical error, or something else. I believe the utility deserves merit for bringing even base code more accessible to the mathematically challenged! -Though, knowing my luck, some-one else will/may have already done it!!!

Happy Prog'ing
John Fielden

# COMMODORE PROGRAMMING

**BY John Fielden**
**COMMODORE 16/PLUS4 Programme listing**

Listing of: flags1.prg

```
10 REM *FLAGS OF THE WORLD*
20 COLOR0,9:COLOR4,1
30 DIMFL(10,10,10)
40 GRAPHIC1,1
45 REM GJOY310
50 COLOR1,6,5:REM ***ITALY***
60 BOX1,1,1,30,45,0,1
70 COLOR1,2
80 BOX1,30,1,60,45,0,1
90 COLOR1,3,4
100 BOX1,60,1,80,45,0,1
110 COLOR1,5 :REM **LUXEMBURG***
120 REM LOCATE1,400
130 BOX1,1,50,80,70,0,1
140 COLOR1,8
150 BOX1,1,65,80,80,0,1
160 COLOR1,6
170 BOX1,1,80,80,95,0,1
180 COLOR1,7,3:REM ***FRANCE**
190 BOX1,1,100,30,145,0,1
200 COLOR1,2
210 BOX1,30,100,60,145,0,1
220 COLOR1,3,4
230 BOX1,60,100,80,145,0,1
240 COLOR1,9
250 BOX1,1,147,80,147,0,1
260 COLOR1,3,4:REM *SWITZERLAND***
270 BOX1,1,155,80,195,0,1
280 COLOR1,2
290 BOX1,20,170,60,180,0,1
300 BOX1,35,160,47,190,0,1
310 COLOR1,2 :REM ***JAPAN***
320 LOCATE1,1
330 BOX1,85,1,155,45
340 COLOR1,3,5 :COLOR0,2
345 CIRCLE1,120,25,15,12,1
350 PAINT1,120,25,0
354 COLOR1,2
355 DRAW1,105,1 TO 100,45
356 DRAW1,140,1 TO 135,45
357 DRAW1,110,1 TO 130,6
358 DRAW1,100,40 TO 130,45
359 BOX 1, 90,35 , 100,40
360 COLOR1,2
370 PAINT1,90,7 ,1
375 PAINT1,140,7 ,1
380 REM CIRCLE1,120,25, 5,2 ,1
390 COLOR0,9
400 REM DRAW 1,84,0 TO 156,0: DRAW1,84,49 TO 156,49
410 DRAW 1,84,0 TO 84,45: DRAW1,155,0 TO 156,49
420 REM *TWO SHAPES TOGETHER: NOT SOO SIMPLE AS YOU
MIGHT THINK! *
430 REM * ...AND NOW I'VE HAD ENOUGH!*
9390 GETKEYA$:PRINT"{clr}{black}":COLOR0,2:COLOR4,14
9400 GRAPHIC0
```

Listing of: gshape.prg

```
5 REM *PG90REF4*
7 REM (50) 90,60 ,200,72
8 M=90:N=60:O=200:P=72
10 GRAPHIC1,1
12 X=5:Y=1
15 A=150:B=100:C=60:D=50:E=120
20 FORJ=0TO90STEP10
30 CIRCLE,A,B,C,D,,,J,E
40 NEXTJ
45 REM*SAVE AN AREA FROM THE DRAWING*
50 SSHAPEA$,M,N,O,P
55 REM *DISPLAY SAVED AREA, IN REVERSE AT TOP OF
SCREEN*
60 GETKEYS$
70 GSHAPEA$,0,5,1
80 GETKEYS$
90 GRAPHIC0
200 REM. P45,GSHAPE
```

Listing of: gshape1.prg

```
5 REM *PG90REF4*
7 REM (50) 90,60 ,200,72
8 M=90:N=60:O=200:P=72
9 R=63:Q=-2:S=2:T=50
10 GRAPHIC1,1
12 X=5:Y=2
15 A=150:B=100:C=60:D=50:E=120
20 FORJ=0TO90STEP10
30 CIRCLE,A,B,C,D,,,J,E
40 NEXTJ
45 REM*SAVE AN AREA FROM THE DRAWING*
50 SSHAPEA$,M ,N,O+R,P+Q
55 REM *DISPLAY SAVED AREA, IN REVERSE AT TOP OF
SCREEN*
60 GETKEYS$
70 GSHAPEA$,2 , 2 , 1
80 GETKEYS$
90 GRAPHIC0
200 REM. P45,GSHAPE
```

# COMMODORE PROGRAMMING

## BY John Fielden
## COMMODORE 16/PLUS4 Programme listing

Listing of: restore.prg

```
10 FORJ=1TO20
20 READA$
30 PRINTA$
40 NEXTJ
50 PRINT"CONTINUE Y/N?"
55 GETKEYA$:IFA$="N"THENSTOP:ELSE10
60 RESTORE
70 DATA JOHN, FIELDEN, AT, COMMODORE, FREE, DOT, COM
80 DATA THE, GREATEST, ONLINE, MAGAZINE, THAT IS,
90 DATA DEDICATED, TO THE, COMMODORE,
100 DATA A, RETRO, TYPE, MAGAZINE, FOR, COMPUTER, EN-
THUSIASTS
110 DATA PLEASE, SEND, IN, ANY, IDEAS, OR, ARTICLES, FOR,
PUBLICATION
120 DATA BECAUSE, THE, KIND, EDITOR, SAYS, YOU, CAN!
```

Listing of: restore4.prg

```
10 FORJ=1TO20
20 READA$ :X=X+1
30 PRINTA$,X
40 NEXTJ
50 PRINT"CONTINUE Y/N?"
55 GETKEYA$:IFA$="N"THENSTOP
60 IFX>21THENRESTORE
65 GOTO10
70 DATA, JOHN, FIELDEN, AT, COMMODORE, FREE, DOT, COM
80 DATA THE, GREATEST, ONLINE, MAGAZINE, THAT IS,
90 DATA DEDICATED, TO THE, COMMODORE,
100 DATA A, RETRO, TYPE, MAGAZINE, FOR, COMPUTER, EN-
THUSIASTS
110 DATA PLEASE, SEND, IN, ANY, IDEAS, OR, ARTICLES, FOR,
PUBLICATION
120 DATA BECAUSE, THE, KIND, EDITOR, SAYS, YOU, CAN!
1000 REM *Q. HOW DO YOU MAKE SURE ALL DATA IS READ
```

Listing of: codeConverter12b.prg

```
10 REM *HEX TO DEC TO BIN AND BACK*
20  CC$="{home}{home}{clr}  CODE
CONVERTER":XY$="{home}{down}{down}{down}{down}{down}
{down}{down}{down}{down}{down}{down}{down}{dow
n}{down}{down}"
25
XL$="{home}{down}{down}{down}{down}{down}{down}
{down}{down}{down}":M1=0:M2=65535
30 SCNCLR:PRINTCC$;"{down}":CF=-1
40 PRINT" 1 - ALL CODES FROM 0 TO 65535"
45  PRINT" (0 - TO SWITCH BETWEEN CONTINUOUS
LIST)":PRINT
50 PRINT" 2 - HEX TO DEC & BIN."
60 PRINT" 3 - DEC TO HEX & BIN."
70 PRINT" 4 - BIN TO HEX & DEC."
80 PRINT" 5 - TO EXIT"
100 PRINT"{down} HEX=HEXADECIMAL, BASE 16"
110 PRINT" DEC=DECIMAL, BASE 10"
120 PRINT" BIN=BINARY, BASE 2"
130 PRINT
135 TRAP5010
140 GETKEY A$
150 X=VAL(A$)
155 IFA$="0"THENX=1:S1%=S1%+1:IFS1%>1THENS1%=0
160 ONXGOTO8000,180,300,400,5000
170 GOTO140
180 REM *HEXADECIMAL TO DECIMAL*
190 PRINT" TYPE HEX TO CONVERT:"
200 INPUTH$
210 D=DEC(H$)
220 IFDEC(H$)<0 OR DEC(H$)>65535 THEN200
230 PRINT"DEC: ";DEC(H$)
235 GOSUB5500
```

```
240 PRINT"{lgreen}ANOTHER Y/N?{black}"
250 GETKEYA$
260 IFA$="Y"THENONXGOTO9900,200,320,1000
280 GOTO30
300 REM *DECIMAL TO HEXADECIMAL*
310 PRINT" TYPE DEC TO CONVERT:"
320 INPUTD
330 D=INT(D)
340 IFD<0 OR D >65535 THENPRINT"RANGE: 0 - 65535 ON THE
C=16/+4":GOTO320
350 PRINT"HEX: ";HEX$(D)
352 IFCF>-1THENGOTO5500
355 GOSUB5500
360 GOTO240
400 REM *BINARY TO HEX & DEC.*
402 RESTORE
405 PRINTXL$;"{down}"
410 PRINT" TYPE 8 DIGIT BASE 2"
415 REM *USE POKE TO ?X'S PRIOR TO NO.*
416 PRINT"{lred} 7 6 5 4 3 2 1 0 "
417 PRINT"{orange}128 64 32 16 8 4 2 1{black}"
420 FORP=0TO7
430 GETKEYA$
440 IFA$<"0" ORA$>"1"THEN430
450 IFA$="0" ORA$="1"THEN B%(P)=VAL(A$)
460 PRINTXY$
470 FORK=0TO7
475 IFP< KTHEN490
480 PRINTB%(K);
490 NEXTK
500 NEXT P
510 FORT=0TO7
520 READB
530 B%(T)=B%(T)*B
540 C=C+B%(T)
```

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# COMMODORE PROGRAMMING

**BY John Fielden**
**COMMODORE 16/PLUS4 Programme listing**

```
550 NEXTT
560 RESTORE
570 DATA128,64,32,16,8,4,2,1
580 PRINT: PRINT" TO DEC = ";C,
590 PRINT":TO HEX = ";HEX$(C)
595 IFBY%=1THEN660
600 PRINT"{down} *TIMES* BY HIGH BYTE? -Y/N?"
610 GETKEYA$
615 IFA$="N"THEN750
620 IFA$="Y"THEN630
625 GOTO610
630
PRINTA$:BY%=1:PRINT"{down}{down}{down}{down}{down}{do
wn}{down}{down}{down}{down}{down}{down}{down}":PRINT"
LOW BYTE ":C1=C:C=0
640 FORJ=0TO7:PRINTB%(J);:NEXTJ:PRINT"{up}"
650 GOTO400
660 BY%=0:C2=C1*C
670 PRINT"TOTAL: ";
671 PRINT"DEC ";C2;
675 PRINT" :HEX ";HEX$(C2)
680 C=0:C1=0:C2=0
690 PRINT"{grey3} PRESS KEY{black}"
700 GETKEYB$
750 GOTO240
1000 SCNCLR:GOTO400
5000 END
5010 RESUME30
5500 REM *FROM DEC TO BIN*
5510 PRINT" TO BINARY"
5512 IFD>255ANDCF>-1THEN CF%=1:GOTO5650
5515  IFD>255ANDX>1THENPRINT"MANY
VARIATIONS{down}":GOTO5650
5520 IFD=>128THENBT%(7)=1:D=D-128
5530 IFD=>64THENBT%(6)=1:D=D-64
5540 IFD=>32THENBT%(5)=1:D=D-32
5550 IFD=>16THENBT%(4)=1:D=D-16
5560 IFD=> 8THENBT%(3)=1:D=D-8
5570 IFD=> 4THENBT%(2)=1:D=D-4
5580 IFD=> 2THENBT%(1)=1:D=D-2
5590 IFD= 1THENBT%(0)=1:D=D-1
5600 IFD<>0THEN PRINTD;" THERE HAS BEEN AN ERROR!"
5605 PRINT"{lred} 7 6 5 4 3 2 1 0 "
5606 PRINT"{orange}128 64 32 16 8 4 2 1{black}"
5610 FORK=7TO0STEP-1
5620 PRINTBT%(K);
5630 NEXT K
5640 PRINT
5650 FORKB=0TO7
5660 BT%(KB)=0
5670 NEXTKB
6000 RETURN
8000 REM *LIST LENGTH*
8010 PRINT" LIST FROM:"
8020 INPUT"START";M1
8030 IFM1<1 ANDM1>65535THEN8020
8040 INPUT"FINISH";M2
8050 IFM2<M1 OR M2>65535THEN8040
9000 REM *LIST 0 TO 65535 ..."PFFF!" *
9010 SCNCLR:PRINTCC$;"{down}"
9020 PRINT"MAX. LIST: 0 - 65535";" (";M1;"TO";M2;")"
9030 PRINTSPC(20);" (SWITCH = ";
9040 IFS1%=0THENPRINT"OFF";
9050 IFS1%=1THENPRINT"ON";
9060 PRINT")":PRINT:PRINTCHR$(27)+CHR$(84)
9070 FORCF=M1TOM2
9080 GETA$
9090 IFA$="P"THENGOSUB12000
9100 IFA$="Q"THEN30
9110 D=CF:PRINT"DEC=";CF;" ";
9120 GOSUB330
9130 REM IFCF%=0THEN9900
9190 REM *POSS. VARIATIONS IN DECIMAL*
9200 PRINT" *POSS. VARIATIONS IN DECIMAL*"
9210 FORL=0TO255
9220 FORL1=0TO255
9225 GETA$
9226 IF A$<>""THENGOSUB12000
9230 C0=L*L1
9240 IFC0=CFTHENPRINTL;"*";L1;"=";C0,CF
9250 NEXTL1
9260 NEXTL
9270 IFX=1ANDS1%=1THEN240
9900 NEXT CF
9910 CF%=0:GOSUB12000
9920 GOTO30
12000 REM *PAUSE ON*
12005 PRINT"PAUSED";L;L1;
12010 GETKEYA$
12020 IFA$="Q"ORA$="E"THEN30
12030  IFA$="P"ORA$="
"THENPRINTCHR$(27)+CHR$(68);:RETURN
12040 GOTO12010
```

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# Commodore Computer Club – USA

## Vancouver, WA – Portland, OR – Commodore Users Group

Greetings program! My name is Sean. I'm a Geek With Social Skills and as of April 12, 2010 I've started up a Commodore computer club and Users Group in the Vancouver, WA – Portland, OR (PDX) and looking for like minded people with an interest in Commodore computers.

**Mission:**
If you have an interest in the Commodore 64 (C64), SX-64 and Commodore 128 (C128) and all the various hardware that comes with that, like 1541 disk drives, modems, 1702 monitors, etc, then the Commodore computer club and Users Group of Vancouver, Washington is for you.

We also discuss the Commodore Amiga, VIC-20, Commodore 16 (C16), Plus/4 and even the C64 Direct-to-TV (C64DTV) designed by Jeri Ellsworth. If it's Commodore related, we discuss it at our meetings.

The goal is to have monthly meetings and discuss cool things that are still happening in the scene as well as share project ideas or concepts and to inspire each other for new ones.

Membership Information:
Currently, membership into the Commodore Computer Club and Users Group is free, but dues may be collected in the future.

**Donations:**
We gladly accept donations to the Commodore Computer Club which can be in the form of money (cash, checks or PayPal), hardware, software, books or magazines.

If you're interested in making a donation to help support the club, please contact us.

**About The Founder:**
For a little background about myself, I've been involved with the Commodore 64 computer for over 27 years now, basically since I was a little kid

I received my first Commodore 64 back on Christmas morning, December 1983 from my grand parents. Prior to getting my own C64 computer, I had been using Apple IIe's in Elementary school. I really enjoyed using Logo back then.

In the early 1980's I was a Sysop and ran various BBS's and did a lot of programming on and for the Commodore 64 computer. I was also a founding member of USA (United Sysop's Association), a group of like minded BBS operators.

Fast forward to present day and I'm still plugging away on my original C64 and doing repairs for friends, family and of course club members.

**Final Thoughts:**
The Commodore Computer Club and User Group meetings are open to anyone with an interest in Commodore technology. Our attendees come from a wide variety of backgrounds, and all are welcome. Come to learn, come to share. It's all for the love of anything Commodore related.

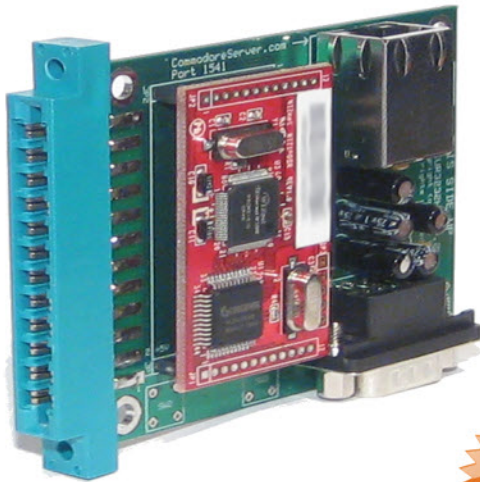Thank you in advance for your time and consideration.

-Sean
Club Founder and Sysop
http://www.commodorecomputerclub.com/

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```
10 OPEN 2,2,2,CHR$(10)
20 PRINT #2, "MY DATA"
30 CLOSE 2
```

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http://www.CommodoreServer.com

---

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# IINTERVIEW WITH
# COMMODORE COMPUTER CLUB USA
## VANCOUVER, WA PORTLAND, OR COMMODORE USERS GROUP



**Q – Hello; please introduce yourself**

Hello and greetings program, my name is Sean, also known as the "Geek With Social Skills" because it describes me perfectly.  I'm the founder and Sysop of the Commodore Computer Club and Users Group based in Vancouver, WA - USA (http://www.commodorecomputerclub.com/).  I'm also into other vintage consoles and computers. Currently the Vectrex is my favourite system next to my C64.



**Q - Can you tell our readers how you came to be aware of Commodore**

I had my first experience with Commodore computers when I was 11 years old back in 1983 when I received my first C64 as a Christmas present from my grand parents. Here is a picture from back then of me opening the present:

http://www.commodorecomputerclub.com/christmas-1983-my-first-commodore-64/

**Q - What does Commodore mean to you and how has Commodore changed your life**

Commodore means a lot to me both personally and pro-

fessionally.  Personally, it was a great escape for me as a kid.  My home life was pretty rough growing up but I could always escape by diving into my Commodore 64 computer, books and magazines (RUN, PowerPlay, Ahoy!).  I would play text based adventure games (Zork I, II and III), I got into calling various BBS using my 300 baud modem and later ran a few BBS myself and also did some Co-Sysop work. Of course I did my school work and reports on my first C64 which I still own to this day. I love my Commodore 64, but not as much as my wife hehe, but speaking of my wife, she is very supportive of my addiction to all things Commodore.

On the professional side of things, if it wasn't for Commodore computers I wouldn't be in the line of work I'm in today.  I do web, graphics and application development and it's because I was introduced to computers at such an early age and loved them.  In second grade elementary school we had Apple II's and I programmed using Logo and basic, so when the time came and I got a C64, I already had the computer bug in me.  To this day I can sit in front of my Commodore 64 computer and play games, write programs and just have a good time.

**Q - Tell our reader about the Commodore Computer Club USA, when did it start, where and what was the motivation for the club**

The Commodore Computer Club USA was started April 12, 2010 in Vancouver, Washington but I had been thinking about it for a couple years prior.  As for motivation for starting the club, it's a short story actually.  Read on...

For many years I've been meeting with friends, family and co-workers to hang out and play video games and tinker with retro consoles (Atari 2600, Vectrex, Nintendo NES, Sega Genesis and Dreamcast, etc.) and vintage computer hardware (Commodore Vic-20′s, Commodore 64′s and Apple IIe's) at my home or at various friends houses.

Basically since I was a little kid, maybe 9 or 10 years old I've been collecting and playing with all this wonderful classic hardware and software. In October 1977 my grand parents purchased an Atari 2600 (they passed it on to me, which I still have to this day) and my first C64 that was a Christmas present back in December 1983 which I also still own and use.

After getting together over many weekends playing games and fixing broken down hardware, and keeping in touch with all my geeky friends the past few years, it was suggested that I should do something amazing with all this cool hardware and software that I've collected and kept working all these years…

So after thinking about it for a little bit more, talking with friends about the pros and cons of everything, in late March 2010 I came to the conclusion that I should look around my area for a club doing what I loved so much and there wasn't a single club for close to 100+ miles away, so it was decided at that moment I would start a Commodore Computer Club.  On April 12, 2010 at 6:34 am PST I registered two domain names to be used for the club,  www.c64club.com  and www.commodorecomputerclub.com and the rest is history as they say :)

**Q- Do you have regular members and how many, can you name and shame them**

Yes, we currently have 10-15 regular members that come to every meeting.  As time goes on we are getting more people interested in our club which is really nice.  As for naming them all... I can name a few off the top of my head, but some I can't disclose their last names for privacy and/or work related reasons... so in no special order Sean (that's me), Michelle, Troy, Jeremy, Brandon, Dan, Scott, Earl Evans (RetroBits Podcast), Nick, Victor, Pete Brown (Microsoft Developer Community Program Manager), Jeri Ellsworth (of C64DTV fame), Kevin Savetz (founder of AtariArchives.org).  To see pictures of our members, check out our various meeting recaps:

http://www.commodorecomputerclub.com/tag/meetings/

**Q- Where do you meet when**

We meet at Pied Pieper Pizza in Vancouver, WA the first Friday of every month at 6:00 pm PST.  Our meetings typically go until midnight or later.  We use a private banquet room which can hold 40-50 people without any issues, so we've got room to expand.  There are a lot of tables, electrical outlets, free Wi-Fi and of course tasty food.  More information can be found on our meetings page:

http://www.commodorecomputer club.com/meetings/

**Q- At meeting what is covered**

Oh wow, we cover all sorts of things... from programming in basic and machine language, writing homebrew video games, sprite graphic design, SID music, Commodore repair and troubleshooting (drive alignments, chip replacements, reviving dead machines, etc.), making our Commodore computers do things they were never intended to do and so much more.  We also discuss classic movies and music from the 1980's.

At most meetings we try and have some sort of scheduled presentation.  At one recent meeting we had Pete Brown

from Microsoft showing off his Commodore 64 Emulator (http://www.commodorecomputerclub.com/meeting-recap-and-photos-friday-september-3-2010/) and at another meeting Jeri Ellsworth showed off some Easter Eggs in her C64DTV (http://www.commodorecomputerclub.com/meeting-recap-friday-august-6-2010/) and John Hancock did a demo of the Vic-20 multi-cartridge (http://www.commodorecomputerclub.com/vic-20-presentation-by-john-hancock/).

**Q- What is age range of the oldest and youngest members of the club**

This is a tricky question as we don't usually ask how old someone is at our meetings, but I do know from personal experience that we've got a few members in their early to mid 20's, 30's and 40's. At the next meeting I'll be sure to say that you want me to start asking for ID from people hehe. Something to note, recently we've had parents bringing their children (8 to 10 years-old) to our meetings which is nice. We're helping get the wonderful world of Commodore computers into the hands of the next generation which is really awesome.

**Q- I see the club caters for All Commodore hardware what's the most unusual piece of hardware you have seen in the club**

Yes, we like all Commodore computers, but as of this moment while talking with you, the most unusual piece of hardware I've seen at a club meeting was a Commodore 64 computer with a custom paint job that was modified to not only be a normal C64, but it could also play MP3's (not SID files), could use USB joysticks and had an SD card modification which gave it sort of a unlimited 1541 hard drive of available programs. Someone also brought in a Commodore 1001 disk drive. Looks sort of like a 1541 but I had never seen one before. It was pretty cool.

**Q- what's the most rare item the club has seen**

A real Commodore 64 diagnostic test harness with the original cartridges for the Vic-20, C64 and C128 computers. This is now in my personal Commodore collection and I bring it to every meeting to be used to diagnose Commodore computer issues. It sure helps in tracking down issues quickly with various chips on the PCB's. I like to use it for burning in systems after repairs too.

**Q- do you think there is a need for clubs to be maintained, why keep looking at old machines what's the fascination**

Yes I think clubs should be maintained. Every day more and more information about anything to do with Commodore computers is going away. A lot of the original club and user group people have died off, so it's younger people like us who need to keep it going. Being 39 years old, I'm part of the last generation to remember when there wasn't an internet. That makes my head spin just think-

ing about it. As mentioned in an earlier question, we've started having younger kids, like 8 to 10 years-old coming with their parents to our meetings... and they enjoy the computers and programs, especially the games, so there is hope - at least in the Pacific Northwest that Commodore computers will continue on for a few more years :) thanks to these awesome little kids.

**Q- Do you think today's kids are missing out on something, I mean they have Facebook, Google and iPhones but isn't something missing like where is the fun of it all**

Indeed, I think that kids today are missing out on a lot of things with old school or classic consoles and computers, which is part of the reason our Commodore Computer Club and Users Group was recently the exclusive club to represent Commodore computers at the 2010 Portland Retro Gaming Expo (PRGE). With the earlier systems like Commodore Vic-20's and 64's, you can just pick up a joystick (with one button) and have fun... no reading a manual, figuring out the 12 button controller and analogue stick, etc... games back in the day were just fun and not all about killing and sniping people. At the PRGE we had kids from 5 to 10 years of age just picking up a controller and having fun on Vic-20's and C64's. They were smiling and having a great time and even saying things to their parents like "wow, this is fun, we should get a Commodore computer", which we had for sale at our vendor booth. Here are a couple links to see the fun both the kids and parents had:

PRGE 2010: Kids using Commodore Computers: http://www.commodorecomputerclub.com/prge-2010-commodore-computer-kids/

At The PRGE 2010: Commodore Computer Club: http://www.commodorecomputerclub.com/at-the-prge-2010-commodore-computer-club/

Portland Retro Gaming Expo Welcomes Commodore Computer Club: http://www.commodorecomputerclub.com/prge-welcomes-commodore-computer-club/

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spread the word about Commodore computers.

As mentioned before, we recently represented Commodore computers to thousands of people at the 2010 Portland Retro Gaming Expo which was a two-day event. It was a huge success for everyone involved. I'm sure at our upcoming meetings we'll see a lot more people coming because a lot of people showed interest in what we were doing at the expo:

http://www.retrogamingexpo.com/exhibitors.php (shows we were an exhibitor at the Expo)
http://www.retrogamingexpo.com/auction.php (we donated a boxed SX-64 and boxed C64 for the PRGE Auction)

**Q- Do you take members from all over the world, although I guess meeting would be difficult**

Yes, we have members from all around the USA, Canada and Europe.  The best part is we don't have membership dues.  It's completely free to be apart of our club, but we do accept donations in the form of hardware, software or even money if someone wants to do that.  Everything that gets donated goes to other club members, or we donate some of it to other organizations (abused children homes for one).  We also sell hardware from time to time which helps raise money to help the club or other worthy causes.  It does make for interesting times with people in different cities or countries but since we have Wi-Fi at our meetings, we can use Skype and do video chats with our members and friends around the world.  It's awesome. Yes our meetings are about classic Commodore computers, software and accessories, but we also use modern computers to help bring our club and computers to the masses.

**Q- What plans do you have for the club**

I've got a lot of plans for the club. I'm always moving and shaking to help get our club promoted or getting us involved in something to help our local community or

At the PRGE 2010 we made an announcement that our attendees come from a wide variety of backgrounds, and all are welcome, so that made people happy to know that even if they don't know much about Commodore computers, we welcome them to the club and our events.  No elitism or "I'm better then you" in our club.  To all of our core members it's all about fun.  Come to learn, come to share, but leave your attitude at the door.

Our club also works on hardware and software projects (http://www.commodorecomputerclub.com/projects/). One fun project we are just wrapping up is multi-player Zork for the C64.  I can't disclose to much here, but keep an eye on our website for more details to be posted soon as we've made some really awesome developments and even designed a special board to be used on all Commodore computers for online game play.

**Thank you Commodore Free!**

Thank you for taking the time to find out about the Commodore Computer Club (USA) based out of Vancouver, WA and sharing it with your readers, subscribers and members.

# Retro GAMING NEWS LETTER

We are proud to present you our latest newsletter.

Now we have the TOP 3 classic computer running on the Multiple Classic Computer.

**Top 3 Classic Computers on the Multiple Classic Computer (MCC-216)**

We proudly present our latest development with the TOP 3 classic computer and game consoles from the 70s and 80s running now on the Multiple Classic Computer MCC-216. The Commodore C64, Commodore AMIGA and the ATARI 2600 where shown last weekend at the Portland Retro Gaming Expo for the first time to the public.
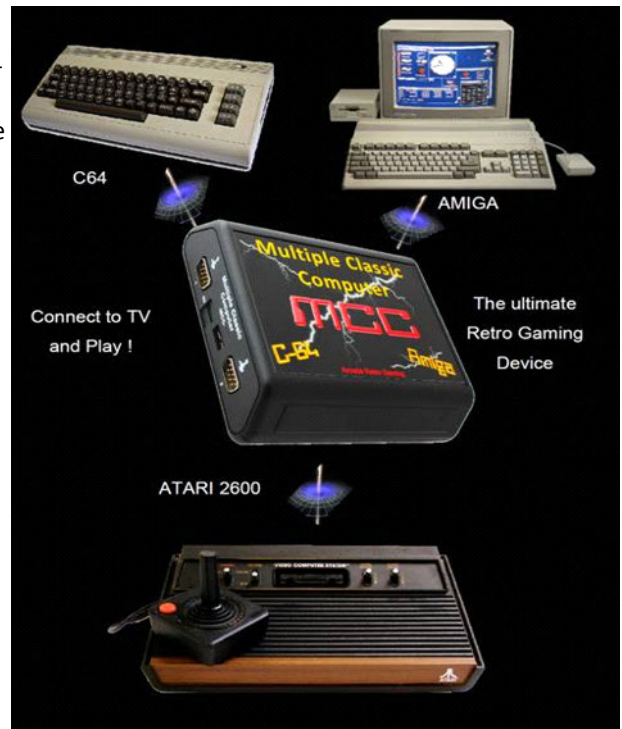
With the Multiple Classic Computer you get the ultimate classic computer and retro gaming console.

The MCC is easy to connect to every TV set or computer monitor. Two different versions will support s-video and VGA output.

Please watch our short video on YouTube: http://www.youtube.com/watch?v=gFcXr_PabkI

and visit our Home Page for the latest information.



# NEW PRODUCT in our Online Store:

# Arcade Joystick including 100 SEGA MEGA DRIVE GAMES

This real Arcade Joystick has 100 Sega Mega Drive games included and is ready to connect to your TV.

Combined with 6+2 Arcade push buttons and a 4 direction rocker switch the systems transforms your living room into a mega Arcade game hall.

Easy to connect to every TV and ships already with a 9V power supply this Sega Arcade Joystick provides hours of fun for every generation.

**Try it out today and be the first to have the Sega Mega Drive Arcade Joystick.**

Don't forget to visit our Online Stores for the latest product offers.

http://s318412817.e-shop.info/;

http://shop.ebay.com/merchant/arcaderetrogaming

**ARG Websites and Email address**:

Mail:  contact@arcaderetrogaming.com

Online:  http://www.arcaderetrogaming.com;
http://www.mcc-home.com

Online Shops:  http://s318412817.e-shop.info/;
http://shop.ebay.com/merchant/arcaderetrogaming

# LOADSTAR COMPLEAT



LOADSTAR was one of the very first disk-magazines ever published. In 1982 Jim Mangham got the idea of a monthly magazine on disk filled with programs, graphics and text that people would run on their computer. In 1984 the first issue of LOADSTAR, a magazine for the Commodore 64/128 computer was launched and over the next 15 years and 199 issues, a LOT of stuff was published on these disk magazines. Now, every bit of it has been converted to fit on one CD that you can run on your PC -- and there's still room on the CD for more old LOADSTAR things like music, JPGs of the colour covers of the issues, and much, much more

Here's some of what you'll get on the CD:

- All 199 issues of LOADSTAR in .d64 and .d81 format
- All 42 issues of LOADSTAR 128 in .d64 format
- .TXT files of all of the text on the issues for fast searching on your PC
- All 21 issues of UpTime (a rival disk magazine that LOADSTAR soundly defeated and bought)

- JPGs of all of the colour covers of the issues when LOADSTAR was sold in stores
- PDFs of all 73 issues of The LOADSTAR Letter, Jeff Jones' excellent newsletter companion to LOADSTAR
- MP3s of selected Knees Calhoon songs
- .d64 files of every LOADSTAR product published separately from the monthly issues: the Complete Bible, the Complete Programmer, all five LOADSTAR Extras, Barbara Schulak's puzzles, etc.
- All of Dave Marquis' SID and MIDI music
- All of Walt Harned's artwork -- Walt is the most prolific artist ever for the Commodore computer
- and whatever else I could find from the historic LOADSTAR archives.

US Only -  $24 plus $3 S&H

Outside the US -  $24 plus $6 S&H

http://www.ramblehouse.com/loadstarcompleat.htm
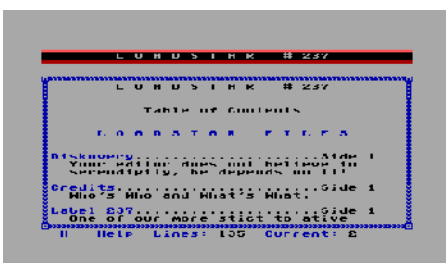
# THE MENSCH COMPUTER

Hello Nigel,
I give you permission to reprint the below identified page. Please acknowledge that you are reprinting with my permission.

Best,-Bill

William D. Mensch, Jr.
Chairman & CEO
www.WesternDesignCenter.com
65xx - Yesterday, Today, and Tomorrow
**Western Design Center**
Western Design Center (American spelling) have an under-promoted computer based around the 65xx CPU and hardware. Bill Mench worked



with Chuck Peddle at Commodore, so this should mean that, essentially, you could do true emulation of a PET, VIC or perhaps even a C64/128 and C16/+4.

Details are here:
http://www.westerndesigncenter.com/wdc/mensch_computer.cfm

**ABOUT Western Design Center**
The WDC supplies a CMOS 65xx microprocessor family of microprocessors (MPU), microcontrollers (MCU), and micro peripherals IC/Chips for your new designs as well as replacements for obsolete chips from our licensees. Please refer to our replacement notes on our Applications Guide page for some detailed help when replacing obsolete 65xx, 68xx, x86, 68K or 8051 family processors. Below is a brief description of each of our 65xx chips and a link to a quick reference page providing access to detailed information.

http://www.westerndesigncenter.com/wdc/chips.cfm

**The joy of programming is back**
**Overview**
The Mensch Computer is a reference design using WDC chips. We provide a FREE, digital form of the W65C265 Develop Board in our PCB Design Kits. For the individual who loves the legacy of the 65xx technology line of products this system displays some of the numerous possibilities of the technology. To program this marvel means to program without limitations. There is no operating system but instead firmware allows quick access to memory and registers, and internal working reference libraries show how to program the hardware. Call the internal functions, or program your own. Use the ROM monitor to jump to your applications or use a timer to create a multitasking operating system. With the Mensch Computer, you're the boss.

**Introduction**
The Mensch Computer is a solid state computer that was never designed to compete in the PC market. It's not a PDA, calculator, home

controller or personal organizer, but it could be any of these things. It was designed to provide simplicity without complexity allowing users to evolve it into their own creation. Many people put a lot of thought and many years into the design to provide a head start for many projects. There are several assembly language library routines built into firmware and a ROM monitor allowing the ease of programming any of the included devices including graphics, sound, game controllers, communication to a PC, Printer or Modem or other solid state devices. The ROM monitor provides an easy interface menu for checking registers and modifying data in memory. All software listings, schematics and documentation are included.

The Mensch Computer is a popularized project to develop rapid prototyping of consumer electronics devices. For the first time, it is being offered for sale in limited quantities. The Mensch Computer has unlimited potential and has been used for the design of messaging systems, personal digital assistants (PDA), portable computers, communication devices and video game systems to name a few. This limited package includes the complete reference design, the Mensch Computer with keyboard and display, complete documentation and everything you need to excel with 65xx technology. Additional accessories are available to suit your needs.

**Features Include**
W65C265 Microcontroller featuring the W65C816 core microprocessor
8 16-bit timers
2 W65C22 Versatile Interface Adapters
32KB SRAM
32KB EPROM
2 PCMCIA v1.0 expansion slots
2 Tone generators
Volume control knob
Internal Speaker
Stereo Mini headphone jack
Power, Reset and Charge LED display
Reset Button
Internal Expansion headers
Internal rechargeable battery power connector (battery sold separately)
4 RJ-12 UART Ports
24 pin I/O slot
Game controller port (game controller sold separately)

Mensch Computer Developer Guide Datasheet
The complete Mensch Computer Developer Guide is available for downloading
http://www.westerndesigncenter.com/wdc/documentation/Mensch%20Computer%20Manual.pdf

**Plenty of IO**
The Mensch Computer has built in software to drive all of its IO, includes complete documentation and boots immediately after power up. Configuration options let you choose between programming from the built in operating system or you can develop your own, using the built in system as a guide. You can leave it running all the time because of the low power 65xx technology inside, or take it with you using the internal rechargeable battery.

**Accessories**
-128KB PCMCIA memory expansion card
-Game Controller
-Rechargeable battery
-Modem
-Mensch Works software expansion card
-Printer
-PC Connector Cable
-Power Supply

# USB-64 -

## TURNING COMMODORE 64 INTO A USB HOST FOR MASS STORAGE DRIVES

*From an idea to a prototype*

Back in April I was attending Breakpoint 2010 in Bingen Am Rhein, Germany. There, among several modern PCs you could easily spot a few Commodore compurers with people actually developing some code, pixellating some picture, and the Metalvotze guys watching a pron movie on a Commodore 64.

Long story short: there are people who keep using their Commodore 64 for all sorts of creative work. Nice, isn't it?

Over time several guys have designed and made all sorts of add-ons for the Commodore 64 to make using it a more enjoyable experience nowadays. That's 25+ years after it first came out.

I've probably been a voice out of the chorus with my DC2N project: something that can play back tape ROMs at the same painfully low speed as the original ones did. That's great nostalgic stuff for those who enjoy sitting back and watching a game load, listening to its load music, and so on.

Not much of interest for people in the development area though. Well, DC2N made the task of creating tape ROMs a very straightforward one; that was the original purpose anyway.

I personally also used my DC2N to transfer files from PC, where my cross-development toolchain runs, to the Commodore 64. That occurred quite a few times during the devolopment I did for this project, of course.

So that, after Breakpoint I felt I had been lingering for too long and had to move on, explore the available options in order to add some new "nice-to-have" feature to my Commodore 64: I personally always felt the need to have file transfer using simple, fast, and cheap means.

It was a rainy day in August when I had the idea: turn the C64 into a USB host and load/save files directly from/to a USB drive: the idea of USB-64 was born.

It took a few days to arrange the hardware and write a driver in assembly. The first properly assembled prototype was going to appear on the 24th of August. Nobody had been informed about the progress, but a few close friends.

USB-64 prototype (serial transfer version)

This is what it looked like:

*Supported USB Mass Storage Devices*

Theoretically USB-64 supports all those devices that implement the standard USB mass-storage device class:

· external magnetic hard drives

· external optical drives, including CD and DVD reader and writer drives

· portable flash memory devices

· adapters bridging between standard flash memory cards and a USB connection

· digital cameras

· various digital audio players & portable media players

· Card readers

· PDAs

· mobile phones

The above list is given for reference purposes only, as found on Wikipedia here.
http://en.wikipedia.org/wiki/USB_mass-storage_device_class

I personally tried USB-64 with a card reader and with 2 external hard drives without issues.

*User interface*

One of the first things I realized was: I need this to be hassle free. It also needs to look and feel like a genuine device from the 80's for what concerns the user experience. With a few "must have" enchancements, of course.

So what does that mean? Well, to me it meant writing a superset of the CBM BASIC interpreter with new commands: USB-BASIC. Examples of new commands would include:

**USAVE**
**ULOAD**
**UVERIFY**
etc.

The error messages had to look and feel like the original ones too. E.g.:

**?DISK NOT PRESENT  ERROR**
**?DISK FULL  ERROR**

Of course, the superset would need to be available in a simple way, possibly having it on a cartridge so that it's ready to use at startup, as enthusi suggested.

So that, I started working my way through the BASIC and Kernel ROMs and looking for other software here and there. I eventually came to the solution I knew I would have liked. On the 28th of August I did my biggest CVS commit of the whole framework, which included by default two new BASIC commands: **COMMANDS** and **QUIT**.

Everything else is up to the programmer who wants to extend the CBM BASIC, including myself when working at USB-BASIC.

```
**** COMMODORE 64 BASIC-PLUS V1.0 ****
 38313 BYTES FREE  (C) 2010 L. DI FRAIA

READY.
COMMANDS

COMMANDS
QUIT

READY.
IF A=0 THEN COMMANDS

COMMANDS
QUIT

READY.
```

BASIC-Plus: my framework to extend CBM BASIC

(parallel transfer version) transfer

**The USB Kernel written in assembly**
At the same time I worked at BASIC-Plus, I wrote most of the USB Kernel sitting on the device driver and on which the new BASIC commands would have been sitting themselves. A first proof of concept for USAVE was already available on the 20th of August (USB-64 was still almost entirely on an evaluation kit at that time), therefore not yet integrated in USB-BASIC:

> **SYS**
> **49501"BASICRAM.PRG",2049,40960**

It took 33 seconds to complete without disabling interrupts or blanking the screen. Well, not too bad for a serial transfer. With interrupts disabled and the screen blanked, I later tried the same benchmark test and ended up with 31 seconds. That's 1.2 kB/s transfer rate. Not too bad, but not too good either if you want to handle big files or stream from/to the USB drive.

I went back one step and designed a parallel interface. Unfortunately, this meant more I/O lines required on the Commodore 64 side; so that I had to borrow three from its Serial Port.

*Parallel transfer*
When I finally got the missing components I built the test device for parallel transfer. It looks like it is fast enough now:

> **SYS**
> **49501"BASICRAM.PRG",2049,40960**

This time it took less than 4 seconds to complete: 9.5 kB/s about. That's less than half the time it takes for the Action Replay VI fastload to save the same amount of data to disk.

Is there room for improvement? Yes, there is. The driver and the software that sits on top of it are far from being 100% optimized. This could be pushed a little bit more, if wanted.



USB-64 connected to a Commodore 64

*Cartridge DIY*
I plan to flash the cartridge version of the handling software on my blank EEPROM at some point. Other users will be able to flash the new ROM into their preferred cart, e.g. EasyFlash.

USB-64 oldskool cartridge (EPROM based!)



USB-BASIC with a few new USB-related commands

### Software

The USB-64 software consists of ALL of the following components:

- low level drivers

- USB Kernel

- BASIC extension (available in direct mode and program mode)

Programmers wanting to support the USB-64 hardware in their software have two options:

- BASIC programmers should use the BASIC extension: UINIT, USAVE, etc

- assembly programmers should use the USB Kernel: jsr UINIT, jsr USAVE, etc

Programmers might benefit of the USB-64 capabilities for different reasons. Examples include:

- save animations to a USB drive from a painting program

- stream an ASCII movie from a USB drive

- save huge amounts of samples to a USB drive, coming from a custom data acquisition device

- store DB data on a USB drive

No device number is assigned to USB-64. My USB Kernel is alone responsible for all access to a single USB-64 device. CBM Kernel routines are simply not used for USB access and therefore do not need to see a new device number to pass control to my USB Kernel.

In this way, I can keep the two Kernels distinct and I don't have to give custom ROMs to users in order to change their CBM Kernel ($E000-$FFFF) into something that understands new device numbers.

### What next

- I plan to make a third version that fits into the serial port of the Commodore 64 and draws power from an external PSU rather than from the C64 itself. The reason is that the user port connectors are becoming very rare and expensive. (**Update**: I was told that these connectors are not so rare; in fact, they are still manufactured, e.g. in Germany, and sold at a reasonable price - 2 euros about) Of course, it will only allow serial transfer at 1.2 kB/s.

- Because of the transfer rate achievable with the parallel version and because of the amount of RAM available for buffering, I wrote the proof of concept for a tape dumping software (in assembly) for the Commodore 64, a la DC2N.



Update: my tests suggest that the C64 is not fast enough to store 16-bit values in RAM and move the content around (to USB or to other RAM locations, i.e. to anywhere else) as soon as enough data has been received. I might explore the feasibility of making 8-bit dumps, but that's not something that excites me too much.

- I am also writing a tool (mixed BASIC and Assembly) that uses the serial version of the device to make D64 images (free time allowing).

```
1234567890123456789012345678901234567890
```
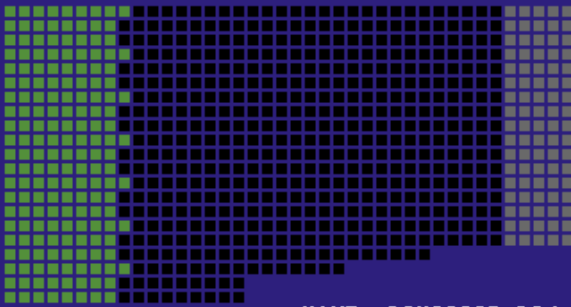
```
NAME: DSK0000B.D64
R/S: ABORT RETRY, SPC: NEXT, R: REPEAT
```

```
D64 CREATOR  (C) 2010 LUIGI DI FRAIA

   F1/F2] START TRACK: 01
   F3/F4] END TRACK: 35
   F5/F6] ERROR INFO: YES
      F7] START DUMPING

   CURRENT T/S: --/--
   DOS ERROR CODE: --

   FILENAME: DUMP0001.D64
   FILE STATUS: NOT OPEN
   LAST ERROR: NONE

   |----------PROGRESS----------|
```

The API will be documented in order to let developers take advantage of USB-64 in their own software.

*Contact*

Comments? Feedback? If you are interested in a USB-64 device, let me know: if enough people are interested I might consider producing a batch. The total cost could be around 25 GBP - 30 euros, for an average batch of the parallel version (that does NOT include the cartridge: you would only get the .CRT file to use with your existing cartridge).

Just e-mail me.

**Note**: I do appreciate those wanting to help, offering to share knowledge, source, etc.
However, I do not require support for the time being. Besides, my experience with DC2N buyers suggests me that most of those who look enthusiastic and offer their time to help, disappear as soon as they get what they want. Before you claim you'll stick to your word, be warned that I've read that a zillion times already.
Are you reading this, Tom-arne? Good, for you're never gonna get any firmware update or anything else from me ever again.

USB-64 - Turning Commodore 64 into a USB host for Mass Storage Drives
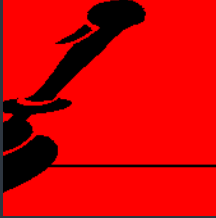
# Multiple Classic Computer – MCC



## CLASSIC COMPUTER SUPPORT

One hardware design which can emulate multiple different classic computers (e.g. C-64 and Amiga).

Easy to reconfigure for different emulations.

All emulation done in real HW design and not Software based. This ensures the original behavior and reaction time for games and applications.

## EXPANDABLE DESIGN

Allows user to add keyboard, mouse, DB-9 Joysticks and has USB, micro SD-card interface.

## ENHANCED FEATURES ON TOP OF THE ORIGINAL DESIGN

New algorithms improve the sound and picture quality.

This Multiple Classic Computer Platform lets dreams come true.

The Classic Computer and Classic Arcade fans are waiting for a device which allows them to go back to the good and easy operation and gaming experience from the past.

Many people still have unique software and programs which are still unbeatable when it comes to user friendliness.

The reconfigurable and generic design will allow an easy switch between multiple different realizations and representations of classic computers. The MCC support Commodore C-64 emulation. The Commodore Amiga emulation will follow soon with a simple Software upgrade. Easy selection of platform, games and application software with enhanced human machine interface.

Old Joystick interfaces allow the usage of classic input devices. A stereo/audio output allows the connection to each TV set, amplifier or computer monitor to explore enhanced sound. Different versions for PAL and NTSC regions allow seamless usage and compatibility. All this paired with the newest available hardware and new interface, like USB, micro SD-Card, S-Video, improve the picture quality and the openness of the systems.

An internal memory enables the permanent storage of favorite games and applications, the menu overlay allows for easy selection of the application or game and the desired Classic Computer.
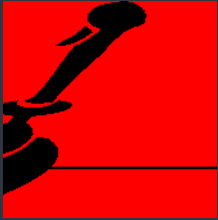
# Arcade Retro Gaming

## Items included in shipment

Multiple Classic Computer (MCC)

Mini USB Power supply 110-240 V

S-Video Cable

User Manual

Micro SD-Card with C-64 core

C64 Forever CD with 100+ games

Competition Pro Joystick

## Technical Specification

Reconfigurable hardware core, including main CPU, graphic engine, sound engine and interfaces

Integrated SDR Memory 16 MBytes

Integrated non volatile memory 2MByte for different classic computer platform realization, programs and games
(enable up to 150 and more games in a closed system)

Support of external keyboard and mouse (PS-2)

S-Video output

Stereo Audio Output

Micro SD-card interface for external programs

Mini USB Battery or external power supply support

Dimensions: 140 x 130 x 40 mm

# LOADSTAR DOTBASIC
# THE ATARI ARCADE  DOTBASIC
# PROGRAMMING PROJECT

**DOTBASIC**
http://www.8bitcentral.com/dotbasic/
LOADSTAR is pleased to offer the ultimate software develop-
ment package for the Commodore 64: DotBASIC Plus.  DB+
provides the means to create sophisticated, modern-looking
programs and is at the same time perfect for the programming
novice
Included with DotBASIC Plus is a nice looking 80 page refer-
ence guide in PDF format.  The guide includes detailed Dot-
Command descriptions, as well as an extensive series of

tutorials. Click the cover image to the left for a few sample
pages.

Tutorial 1 is available on YouTube and shows how to setup the
environment
http://www.youtube.com/dotbasic

**DOTBASIC PLUS Download Version**
**$10.00**
When you purchase the Download Version, you will receive an
email containing a membership to the DotBASIC Forum and
instructions on how to download the Zipped DotBASIC Pack-
age.  This consists of two D81 disk images and an 80 page man-
ual in PDF form.

**DOTBASIC PLUS CD-ROM**
**$20.00**
We can ship you a CD-ROM that contains all the files included
with the Download Version, plus all the downloadable pro-
grams available on this site.

**DOTBASIC PLUS CD-ROM + PRINTED MANUAL**
**$35.00**
This package includes the CD-ROM version of DotBASIC Plus
and a laser printed copy of the manual in a 3-ring binder.

# THE ATARI ARCADE  DOTBASIC PROGRAMMING PROJECT

*COMMODORE FREE*
*The Following text is a reprint from the forum the tutorial is
provided by DOTBOY you can buy DotBASIC from here*
http://www.8bitcentral.com/dotbasic/

I love the old Atarisoft games for the Commodore 64-- Pac-
Man, Donkey Kong, etc.  Some of my very favourites.  So when
I recently put them all together on a disk I used DotBASIC to
create a simple, yet very slick menu. The menu uses Region
Text (see Page 51 of the DB+ Manual) to display a bit of info

about each game at the bottom of the screen. It also plays
some music
Let's take a closer look at the program and see how it was
done.

For me, the first step in just about every DotBASIC program is
designing an **FTS** screen. In fact, I'll admit that I enjoy creating
things with DBDesign about as much as writing the programs
themselves.  I'll often load in DBDesign and just play around
with fonts and layouts, often getting ideas for programs in the
process.

If you take a look at **ATARI.FTS**, you'll notice that the back-
ground is actually black, not light blue, and that I simply cover
the screen with reversed light blue spaces.  This is a little trick I
learned from Dave Moorman that creates an effective illusion.

The fonts, with the exception of the Pac-Man characters at the
top of the screen, can all be found on the **FONTS.D81** disk that
is available in the Download Section.

Before we leave DBDesign, there's one more thing to explore.
 Draw a box around the first menu item (Battlezone) by select-

Let's move on.

After creating the new project, I copied ATARI.FTS to my work disk, and now I'm ready to begin.
LISTing **ATARI.DBS**, here are the DotCommands I used.

**10 rem begin list**
**11 rem.fts,.bl,.edrtext,.dreg,.areg,.prtext,.rk,.ri,.pc,.sid**
**20 rem.endlist**
Remember, you don't have to list all the DotCommands here at once. Just sit down and start banging out your code. When you get to a point where you realize you need a new DotCommand, just add it to the list above, save your work (**GOTO 60000**) and then run **B.DEV** from you DB+ Library disk. Whammo, in a few seconds you will be right where you left off, armed with a new DotCommand. BASIC has a lot of limitations, but what makes it such a fun language is that you can just sit down and start coding without having to do a lot of pre-planning. DotBASIC carries on that philosophy.

Let's approach the program line-by-line now:

**44 .qs**
I decided I didn't want to use the mouse pointer for this program. After all, it's a menu for Atarisoft games, none of which, of course, use a mouse. So, I turned off the mouse pointer (and all other sprites) with the **.QS** command. Turning sprites back on is done with **.QR**

**50 .bl,"atari.fts",d,224*256:.fts,224**
Now I BLOAD the FTS screen. 'd' is the default drive number, which DotBASIC keeps track of for you. As long as you don't redefine 'd', it will always have the value of your active disk drive. That means you can run most DB+ programs from any drive, as long as you use 'd'.

The FTS will be loaded into Page 224 (224*256=57344), and then I display it with the **.FTS,224** command. Note that once you display your FTS screen, you can then use those 16 pages of memory for other things.

**54 .bl,"names",d,240*256**
This BLOADS a **Mr.Edstar** text file into Page 240. "names" contains the actual filenames of the programs on the menu. In this case, the real filenames are all identical to the names list-

ed in the menu, so maybe this seems unnecessary. But what if one of the programs on the menu is "B.C.'s Quest For Tires"? In this case you can print the full name in your menu, but have the corresponding entry in the "names" file be "bcs qft" or whatever the real filename is.

**56 .bl,"regiontxt",d,224*256**
This is another Mr.Edstar file that contains the info for each game that is displayed at the bottom of the menu. Note that I re-used the memory that I had previously loaded the FTS screen into. Since the FTS screen is now displayed, I can use this RAM for other things.

**58 .bl,"m.album leaf",d,144*256**
This is the SID file that plays in the background.

**59 gm=1:.sid,144*256**
GM is the current Game Number that is highlighted. When the program is first run, I want the first game (Battlezone) to be highlighted. Thus, GM=1. Then I start playing music with .SID.

**60 .edrtext,224*256**
This sets up the Region Text that will be displayed at the bottom of the screen. With **.EDRTEXT**, I'm simply telling DB+ where the data is located.

**75 x=1:.do:.dreg,x,22,6+x,16,1:x=x+1:.unx=13:.areg,1,255,13**
Each menu item will be defined as a Region. Here is where the **22 7 16 1** that we wrote down when using DBDesign comes in. So I set up my Do Loop with x=1, I define each Region, incrementing x until I define all 12 regions. Then, I use .AREG to go ahead and "light up" Region 1 (Battlezone) in light green.

**80 pokemv+22,7+128+32:pokemv+23,23:.prtext,1**
Define the colour and location of the Region Text. **MV+22** is colour—7 (yellow) + 128 (reversed) + 32 (cantered). By default, DotBASIC places Region Text on row 24, the very bottom line of the screen. Since my text will be displayed on line 23, I need to POKE a 23 into **MV+23**. *Refer to pages 72-73 in the manual for a complete list of MV values.*

Next, I go ahead and print the Region Text for the first menu item (Battlezone).

**100 .do:.kp,"{down}{up}"+chr$(13)+"msq":.uni%**
The Main Loop. This line waits for a key press of down, up, RETURN, m, s, or q and keeps looping forever otherwise.

**105 oni%goto150,155,175,200,200,10000**
This line branches the program off to react to whatever key press is detected.

**150 .areg,gm,255,05:gm=gm+1:ifgm=13thengm=1**
**152 .areg,gm,255,13:.prtext,gm:goto100**
These two lines are executed if a {down} key is detected. Using .AREG, I first colour the current menu item green (not selected) and then I increment the GM variable by one. We only have 12 games, so if GM = 13 I need to go back to game 1 (Battlezone).

The next line uses .AREG to highlight the new menu selection, prints the appropriate Region Text for that game, and then re-

turns to the main loop on line 100.

**155 .areg,gm,255,05:gm=gm-1:ifgm=00thengm=12**
**157 .areg,gm,255,13:.prtext,gm:goto100**

These lines are executed when {up} is pressed, and is thus very similar to the two lines of code previous.

**175 .rk,240*256:.ri,gm:goto1000**

If RETURN is pressed, the filename data we loaded from the "names" file is racked up. Then I retrieve the appropriate filename from that racked data with .RI,GM. DotBASIC stores that retrieved item in the variable **W$**.

Racking data is a lot like creating a string array in plain BASIC 2.0. .RI is then used to access an element in that array.

**200 x=peek(49152):.sidoff:ifx=0then:.sid,144*256**
**202 goto100**

If either M or S is pressed the music is toggled on or off. I do that by first PEEKing 49152. If there is a non-zero value there, that means music is playing and that the user must want to turn in off. If there is a 0 there, that means music is NOT playing and that the user wants to turn it on.

**1000 print"{CLR}":.tx,7:.pc,12,"loading "+w$:.tx,0**
**1009**
**print"{home}{down}{down}{down}load"+chr$(34)+w$+chr$(34)+",8"**

This sets up the screen to use the dynamic keyboard technique to LOAD and RUN the selected game. Remember, W$ is the name of the game that was assigned by the .RI DotCommand in line 175. Note the .PC DotCommand. This prints the string cantered on row 12.

**1010**
**.sidoff:.of:poke53272,22:poke44,8:poke8*256,0:poke56,160:clr**

Remember this line. It totally deactivates DotBASIC Plus and resets memory pointers to where they should be. I'd suggest you always use this line when using a DB+ program to LOAD and RUN a non-DB+ program.

**1020**
**print"{down}{down}{down}{down}run"+chr$(142)+"{home}"**
**1030 poke631,13:poke632,13:poke198,2:end**

This is the remainder of the dynamic keyboard routine. If you aren't familiar with this trick, I'm basically setting up by PRINTing the LOAD and RUN commands on the screen, then I {home} the cursor and put two RETURNs (CHR$(13)) into the keyboard buffer. When the program ends, those two RETURNs in the buffer are dumped out, thereby LOADing and RUNning the game.

I have lines 1000 - 1030 saved to a different file that I call 'LOAD AND RUN". Then I can quickly insert them into whatever program I may be writing that needs it. If you use the dynamic keyboard technique a lot, you might want to do that too.

**10000 sys64738**

Finally, if 'Q" is pressed, the system does a reset.

And there you have it.

# Back to the Past

### Issue 6, March 2007

### By Neil Reive

As we continue our Back to the Past feature, we go back to March 2007 and look at issue six of Commodore Free…

The front cover was restrained as it paid respect to Richard Joseph, a computer game musician, who passed away on the 4 March 2007. A superb interview with Richard himself is reprinted from the remix64 website as homage to the talented composer.



There was a fantastic feature on the 6502 microprocessor hardware extension, designed by Nicolas Welte. Included were insightful images, test report, and step-by-step process. An interview/feature combo as CF spoke to Lance Lyon of Commodore128.org, a website devoted to Commodore's 128k machine.

Another fine interview, this time with HOXS-project's David Horrocks. With Vice and CCS providing retrogamers with good emulators, CF asked what HOXS offered that those couldn't? "As far as I know," David replied, "Hoxs64 is the only C64 emulator in the world to emulate cycle based sprite collision and the only one that can run Emu-Fuxx0r protected software."

'The Hex Files' series began, written by Jason Kelk, of Old-school Gaming and Retro Gamer's Homebrew column fame. Here, Jason took the readers through the ins and outs of machine code.



In 'New Games on C64', Luke Lynde took a look at some of the recent games that had appeared on the Commodore 64. Bomberman C64 was the pick of bunch, coming away with 96%, while Greenrunner by Aleksi Eeben came close to matching that rating with 90%.

The 'Commodore Preservation Project' article detailed how the project is archiving original versions of Commodore 64 software, without any additional intros, hacks, etc. This was followed by an interview with Pete Rittage, owner of the C64 Preservation Project.

Another interview followed, as Andrew Fisher let the readers know all about his retro experiences with hardware and journalism, including stints on Commodore Force, Commodore Format, Commodore Scene and still contributes to Retro Gamer.

# Commodore Free

## Issue 45
## October 2010

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you have passed on details that will interest other Commodore enthusiasts.

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