

Commodore Free

Issue Number 8

May 2007

Back In Time Live "PURE PROCESSOR FUNK"



22nd JUNE 2007

7pm till Late

The Spitz, Old Spitalfields Market, E1

£10 ENTRY :: STARRING Jeroen Tel, DJ Skitz, and 8-Bit Weapon
8-Bit DJ's On The Cutting Edge

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EDITOR

Many of you will now be in denial at the loss of Total Amiga magazine. I had been a subscriber for a while and what impressed me was the layout of the magazine. Although still a fanzine, it could easily be claimed this was a professional magazine.

Also in this issue, some information about Back in time live the Sid music event, although sadly I will be unable to attend the event, I am hoping that a DVD will be released again, so I may be able to soak up some of the atmosphere.

I am always looking for articles, although sadly very few come through from readers, I would like to promote projects and user groups especially. I would like to also hear about companies promoting Commodore by having hardware and software for sale, with a small history about when they started and what items are for sale, if you own such a company why not get in touch and I can promote you in the magazine, with a link to the website and a few pages of text about your services.

Attached to the end of the magazine is the Commodore gaming advert, although I don't receive any funding from Commodore gaming I felt it was important to promote what they are doing. I have a feeling if everything goes well and sales are good Commodore gaming may have something special for us retro users.

Dave Moorman continues his "teach yourself basic" tutorials and we have another instalment of Assembler from Jason.

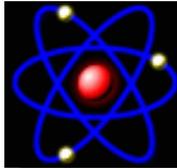
Because Commodore Scenes VGA project went quiet I have an update in this issue, and some information about the project, as usual with these projects the idea seems easy to achieve but real life families and Collage take over and the projects slow to a halt.

Richard Bayliss has put together a utility disk for programmers, and I am happy to promote this by having the disk image available to download on my website. I am hoping to expand this section of the website with disks like a writers disk full of utilities to convert text into and from different formats, spellcheckers etc, again real life is against me so if you have a set of utilities why not use the quik menu system and compile them into a library for other readers to use

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NEWS From Protovision



PROTOVISION

THE FINAL REPLAY V0.8 ROM IS OUT

TFR 0.8 for the Retro Replay cartridge is out. V0.7 had a few bugfixes and a few new features. V0.8 includes a bug fix of one of those new

features.

Changelog V0.7:

- Fixed: Fast format available again.
- Fixed: Removed a possible crash in the DOS command.
- Fixed: Monitor can now save RAM below \$A000-\$BFFF ROM.
- Added: New BASIC command SETIP to change IP address.
- Added: New DOS"D:(header),(id)" command to change disk header.
- Added: INFO command now shows network addresses and number of rasterlines.

Changelog V0.8:

- Fixed: SETIP now also has effect on CodeNet and not only NetDrive.

Get it from The Final Replay home page:
<http://www.oxyron.de/html/freplay.html>

In our hardware section you can find a neat little batch file to make sending files from PC to C64 with The Final Replay more easy.

Related links:

Forum-64:
<http://www.forum64.de/wbb2/thread.php?threadid=15662>
Protovision hardware section:
<http://www.protovision-online.de/hardw/hardwstart.htm#retro>

BOMB MANIA WITH SNES PADS

Zhayl created a patch to make the game Bomb Mania work with SNES Pads. It can be downloaded from here:
<http://dawork.synchronus.de/filez/bombmania-snespatch.zip>

Related links:

Forum-64:
<http://www.forum64.de/wbb2/thread.php?threadid=15368>

ARTILLERY DUEL NETWORK 0.005 RELEASED

Version 0.005 of Artillery Duel Network for RR-Net or ETH64 has been uploaded.

Changelog:

- Now uses client/server terminology
- Awesome explosion graphics from WizardNJ
- Fixed a race condition when exchanging health packets (Leif hopes)

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

Enjoy!

Related links:

Lemon 64 Forum:

<http://www.lemon64.com/forum/viewtopic.php?t=22167>
retrohackers.org Forum:

<http://retrohackers.org/forum/viewtopic.php?t=242>

Petscii Forums:

<http://jledger.proboards19.com/index.cgi?board=c64ngd&action=display&thread=1168405604>

Forum-64:

<http://www.forum64.de/wbb2/thread.php?threadid=14247>

SINGULAR BROWSER - WEB BROWSER FOR RR-NET AND TFE

Soci/Singular put quite some work in his nice web browser: the SINGULAR BROWSER. In a matter of days, he released v0.2, v0.3 and now v0.4 of it. Singular browser supports RR-Net and TFE (The Final Ethernet). You may adjust your IP settings using the included tool IPconfig.

Instructions for IPconfig:

1. Load IPconfig and type LIST.
2. Adjust your IP settings.
3. Type RUN to save the IPconfig-default file.

Some hints:

1. Notice: An already existing IPconfig-default file must be deleted before running IPconfig.
2. If the programm displays "Press record & play on tape" after running it, replace "Peek(186)" in line 10 by the device number you are using, e. g. 8, and try again. Clicking links as well as entering further URLs is not yet supported in the current version of the browser.

Get it from CSDb:

<http://noname.c64.org/csdb/release/?id=47920>

Related links:

retrohackers.org Forum:
<http://retrohackers.org/forum/viewtopic.php?t=240>
Forum-64:
<http://www.forum64.de/wbb2/thread.php?threadid=15548>

VICE 1.21 WITH MMC64 EMULATION

The latest version of VICE (v1.21) has been released earlier this month. Visit the VICE homepage at <http://www.viceteam.org> for downloads. At <http://www.viceteam.org/plain/NEWS> you can find information on what's new in this release. An interesting new feature is MMC64 emulation. The dump of an MMC64 BIOS is required for that. You can find such a dump at retrohackers.org Forum. Notice you will also need the image of a MMC/SD card to emulate MMC64 in VICE. To create an image of your MMC/SD Card, you can use e. g. WinImage or dd.exe.

Related links:

retrohackers.org Forum:
<http://retrohackers.org/forum/viewtopic.php?p=1449>
WinImage: <http://www.winimage.com>
dd.exe: <http://www.chrysocome.net/dd>
Please keep in mind that MMC64 emulation is in an early stage of development, so there are still bugs.

NETMON V0.3 FOR RR-NET

hannenz has released v0.3 of NetMon, a tool to control and monitor your C64 remotely via RR-Net. It uses UDP over IP and new features in v0.3 includes custom IP-addresses. NetMon is perfectly suited for cross developing as it gives you full access to the entire C64 RAM, including REU, and devices on the serial bus. Clients for both Windows and Linux are available.

Related links:

NetMon home page: <http://freenet-homepage.de/hannenz/netmon.html>

Lemon64 Forum:

<http://www.lemon64.com/forum/viewtopic.php?t=22669>

Forum-64:

<http://www.forum64.de/wbb2/thread.php?threadid=12982>

retrohackers.org Forum:

<http://retrohackers.org/forum/viewtopic.php?t=179>

YOGIBEAR INTERVIEWED BY LOTEK64

Lotek64 invited Yogibear/Protovision, composer of the Advanced Space Battle soundtrack, for a chat. Download issue 20 of the magazine from the Lotek64 home page at <http://www.lotek64.com> and enjoy the detailed interview.

Related links:

Forum-64:

<http://www.forum64.de/wbb2/thread.php?threadid=15107>

STEREOINSID NEWS

StereoInsid V2 by Thunder.Bird is an internal board to plug into the SID socket to obtain stereo music and sounds with extra software. It also gives old games and demos a slight stereo effect. Required: a 2nd SID (available as StereoInsid V2s pack) and a little soldering knowledge. Compatible with all C64/C64-II/SX64/C64G... and C128D(CR) but not with the C64DTV.

Features:

- can be assembled with two different SIDs, which also offers better stereo ability
 - jumpers for filters and voltages for SID 6581/8580
 - filters out the VIC noise / is able to do digi with new SID
 - optional stereo input (connect your radio/CD/cassette RCA level) for filtering use
 - stereo headphones jack for using direct headphones or HiFi
 - 2nd SID at \$D420, \$D500, \$DE00, \$DF00 or other address around \$Dxxx
 - small layout for direct connection to where the original SID was
 - easy to install with micro clips (no soldering required, though it is recommended)
 - sounds like stereo with standard games/demos/SIDs
- Extra: 2-sided 5.25" floppy disc full with stereo and 2nd SID software

StereoInsid V2(s) is about to go into production in late spring. For more information and to pre-order, write to contact@protovision-online.de.

T64 PLUGIN FOR MMC64 - SMALL UPDATE

DrCreep released a new version of his T64 Plugin for MMC64, v0.07. The code was re-written from scratch. The new version features autostart and increased compatibility. Only really huge files will cause problems, as well as files located below \$0801. Get T64 plugin from CSDb: <http://noname.c64.org/csdb/release/?id=41993>

PROTOVISION SPONSORED SOME PRIZES FOR THE OXYRON PARTY

The 15 Years Oxyron Party took place from 23rd to 25th February 2007 in Flensburg, Germany. To support the party and its competitions, Protovision sponsored some nice games:

Tanks 3000 + 4 Player Interface
Newcomer
Ice Guys

Party website: <http://www.bequem-von-zuhause.de>
Thanks for the nice party, mates!

CBMIMAGER V0.2.4 RELEASED

A new version of CBMImager, a D64 and DFI image editor for Windows, has been released by Uncle Tom and Doc Bacardi of The Dreams.

CBMImager V0.2.4 changelog:

- added overwrite prompt to extract file operations
- added check for illegal characters in filenames in extract file function
- added context-menu entries to change the properties of a file (file-type, scratch-protection, closed-flag)
- added capability to import and export P00-files (Pxx, Uxx, Sxx, Rxx)
- Added the ability to check for modified images, so a user can be asked to save the current image if he opens/creates a new image or exits the program.
- fixed a bug in the filesearcher where no checks were made if an image loads correctly
- fixed an issue where the user was left alone if an image can't be loaded successfully (now, an error-message is presented to the user)

Project page:

http://developer.berlios.de/project/showfiles.php?group_id=7602&release_id=12219

Download:

<http://prdownload.berlios.de/rrtools/CBMImager0.2.4.zip>

DISKIMAGERY64 0.7 FOR MAC, LINUX & WINDOWS
DiskImagery64 by lallafa is a portable (Qt 4.2.x-based), open-source D64 disk image editor for Mac, Linux and Windows. It offers a nice GUI with drag-and-drop support between disk images and the local file system. Runs programs or mounts images directly in your favorite emulator. RR-Net support is available and allows to transfer programs and disk images directly to your real C64.

Main Feature in 0.7: Added full WarpCopy support. Warp/slow read/write disk images directly from/to real disks. Send DOS Commands, format or verify disks.

Grab it here: <http://www.lallafa.de/blog>

Related links:

Lemon64:

<http://www.lemon64.com/forum/viewtopic.php?t=22432>

Forum-64:

<http://www.forum64.de/wbb2/thread.php?threadid=14844>

HARDWARE SECTION UPDATED

Our hardware section got updated with various software and hints concerning hardware distributed by us: 4 Player Interface, Retro Replay, MMC64 and RR-Net. More updates to come, stay tuned!

Please use the given forum links to leave feedback to those bringing us these nice productions. Thank you!

Visit Protovision online
<http://www.protovision-online.de>

Other NEWS

Cottonwood BBS is now accessible via Telnet!
Operating on All American BBS
128 v12.1b!

The telnet address is cottonwood.servebbs.com (port 23).

A few tips:

When calling for the first time as a new user, call with an ASCII terminal (Hyperterminal or equivalent from a Windows computer, or ASCII mode from a terminal program on a Commodore computer). This is because AA BBS switches to ASCII mode during the application process.

If you call in with CGTERM, all the characters will be reversed at that point. Once you've set up your account, you can call with a Commodore graphics terminal program on all subsequent calls.

Also, during the application, you're asked for your phone number, which is in U.S./Canada phone number format (###-###-####). This is used as a sort of backup ID# in AA BBS. I don't care what number you use, but it needs to be a number that you'll be able to remember in the event that you forget your assigned ID#. And finally, if you'd like to be informed when your account has been validated, send me a feedback message on the BBS with your e-mail address and I'll notify you that way.

Otherwise, all accounts are normally validated within 24 hours (everyone gets the same full access upon validation), so you can just call back and enjoy your access.

One final note... It seems that it's also necessary to tap return (or enter) upon connection, otherwise the BBS will sometimes detect the incorrect baud rate and begin transmitting at 1200 baud when it should be transmitting at 2400. This causes a bunch of garbage to come across instead of the initial welcome message. If this does happen, however, don't worry. Just disconnect, wait a minute or so, and call back. Then, when you connect, just tap return (or enter) once or twice, and you should see the "2400 baud user detected" message.

Any questions? Feel free to e-mail me at wiskow@verizon.net!

-Andrew (aka Balzabaar)

Total Amiga magazine Closes down

I am or rather I was a regular reader of this magazine (Total Amiga magazine,) although not a very active Amiga user due to my Commodore 64 and 128 taking over, I have to admit, to I was quite shocked when I received an email from the editor about the magazines closure. The magazine was very well edited and laid out using where possible 100% Amiga machines For anyone who hasn't read or seen the information I have attached the news from the website. For me anyway its very sad news. Well done for producing an excellent magazine.

so here you go

- Commodore free -

**Posted: 07.04.2007 - 10:58 Post
subject: Amiga Future is taking over
Total Amiga**

The German magazine Amiga Future is taking over the famous English magazine Total Amiga from issue 27.

In a very close cooperation with Robert Williams, and the Total Amiga Team, we have realized a concept to guarantee the future of an English magazine for a very long time.

Of course this will only be possible if there are enough subscriptions all over the time. However existing Total Amiga subscribers will receive any magazines left on their subscription.

Number 26 of the Total Amiga is the last issue to be published by SEAL in the UK.

In the near future there will be an English release of the German Amiga Future, which will take the place for the Total Amiga.

The first new issue of the Amiga Future to be published in German and English is the number 67 for july/august 2007 (release date 5th of July).

For this all the German articles will be translated into English, so the content of both editions will be the same.

Our intention is now to get in contact with some more translators with English as their native language!

Interested users, they don't have to work for free, should call our editors office as soon as possible!

Both issues of the forthcoming new Amiga Future will be released at the same time.

In other words there are no changes for our German readers in the future, but almost all things will change for the current readers of the current Total Amiga.

On time release every two months is one of the important things for the Amiga Future editors. Every issue can be ordered directly from us or from several Amiga dealers worldwide. (Interested dealers please call us too!)

Every magazine can be ordered as single issue or as subscription, you can choose it with or without a Cover CD-ROM.

Because the Total Amiga did not have such a feature in the past, all current subscribers will receive their magazines without an Cover CD-ROM. Subscribers interested in upgrading their subscription to include the CD can call our office before issue 67 is released Of course upgrading to the Amiga Future with CD-ROM is always possible for additional 3.- Euro every time.

Each Issue Amiga Future magazine currently contains 52 pages, cover pages in colour, the rest b/w. This won't change for the future as it is an important part of our concept. So it is even possible to release new issues even without any advertisers in a single issue!

Prices have had to change in comparison to the Total Amiga because there are more issues per year and the magazines will now be posted from Germany. Every English or German issue of the Amiga Future will cost 4.50 Euro without a CD or 7.50 with our Cover CD-ROM. All prices plus shipping costs, e.g. additional 3.75 Euro worldwide!

Our special subscription price is 39.90 Euro resp. 57.90 Euro for the CD-ROM edition. Here are the shipping costs already included!

You can see, becoming a subscriber is a lot cheaper (and easier) than ordering a single issue and it gives our editors confidence in the future of the English magazine.

We invite anyone interested in an English Amiga magazine to order the first issue as soon as possible or even better subscribe to the magazine and become a part of the Amiga Future community. We can always only print a small additional quantity of magazines above those for subscriptions and preorders so make sure you get your copy.

Our editors office is reachable at: Amiga Future, Postfach 83, D-83234 Übersee, Germany. Or <http://www.amigafuture.de> and redaktion@amigafuture.de !

The new forthcoming English translated issue of the Amiga Future magazine can already be ordered in our online-shop, the same for subscriptions with or without the Cover CD-ROM.

If you have any questions, please don't hesitate to contact us via eMail or by visiting our English section of the website.

Of course there is even a newsletter available, to subscription send eMail to newsletter-subscribe@apc-tcp.de .

About Amiga Future

The Amiga Future was founded about nine years ago and has started with issue 11 by the publisher ICP (e.g. German AmigaPlus) because of technical reasons.

Later on the publisher FALKE has taken over the Amiga Future magazine with its editors and the AmigaPlus too. Almost seven years ago we had an buy out and the Amiga Future was done by its editors itself. Since issue 27 the magazine is done completely by its editors office, meaning writing articles, layout and even sales and marketing!

Actually we have a very safe financial base, so even if the subscriptions getting lost that much this would be no reason for stopping the magazine at all! Additionally there are almost daily enhancements at the website. Besides the biggest cheats database (over 5.000 cheats for over 2.000 Amiga Games) we have a very large database with over 1.000 articles available online.

Actually we have even a new gallery with over 1.000 Amiga related pictures of all kinds. Another new feature is our download area with lots of full releases of famous Amiga Software titles (this includes Games and Applications).

Since some time now we are also hosting the very famous Big Book of Amiga Hardware (BBoAH) which

is being updated very often. Quite some other enhancements for the website are always planned.

About Total Amiga

Total Amiga is an A4 printed Amiga magazine published by the enthusiastic Amiga users at South Essex Amiga Link. The magazine covers all aspects of the Amiga from a user's point of view, we try to be as honest and realistic as we can.

Each issue has a selection of news, product reviews, hints and tips, tutorials and opinion. Inside the magazine you will find a variety of writers, some regular and others contributing the odd piece now and then.

The magazine has now been running for about eight years, for the first nine issues it was called "Clubbed". Total Amiga is published quarterly (four times per year). Total Amiga is available by subscription world wide, we also sell single issues and distribute through Amiga dealers.

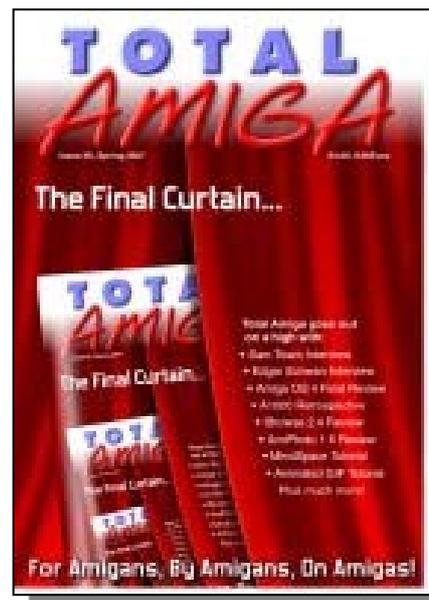
Total Amiga is produced entirely on the Amiga using PageStream 4 and a variety of other software. We try to maintain a high quality throughout the magazine and have been praised for our production values. Total Amiga is a non-profit publication and all the contributors and everyone who works on it gives their time for free as a service to the Amiga community.

Future

To retain the quality even in the future we need your support. At first of course we need enough subscriptions of the Amiga Future. Second we need some good translators and even writers for the website.

<http://www.amigafuture.de>
<http://www.apc-tcp.de>

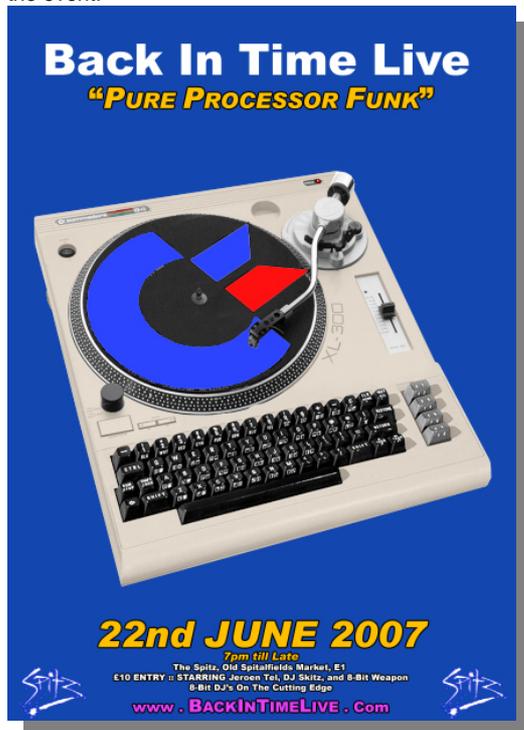
Andreas Magerl
Chefredaktion Amiga Future
Geschäftsführung APC&TCP



C64 Audio news

Back in Time Live 2007 - June 22nd 2007

Jeroen Tel re-confirmed this week for Back in Time Live 2007, the latest in the eccentric series of C64 live events which have proved in the past to be unmissable... the acts are Jeroen, Reyn Ouwehand (who will be performing lots of instruments live like in his Garfield video), Danceaway (who will surprise you all, in a good way!), and the Las Vegas duo of 8-Bit Weapon and ComputeHer, who were the impetus for the event.



Myself and Paul "Skitz" Hadrill checked out the venue at the end of last month and we were very happy with what we found. Lots of sound equipment, a stage which can handle it, a toilet that's clean and spanky, and a bistro attached that you can eat at if you get peckish. The location is good too, since it's right in the City of London. You can't sneeze without getting your snot all over an eaterie of some description.

There are still lots of tickets left, so I'd be grateful if you'd continue buying them! At the event Seth will be bringing some bootleg copies of his new cover album, which should be titled "Have you contacted Hot Pussy yet??", but which is actually a much improved version of his last cover album. I'm also going to be putting his stuff on its own separate section in the new shop, since I'm expanding that side of things now the digital download stuff is in place.

Did you know that the Back in Time Live 2007 product holds a lot of bonus material about the previous Back in Time Lives? You don't need to have bought a ticket to download most of it, and there is tons of material: Videos, documents from the organisers, music tracks which have been created for or only played at BIT Live, etc...

Anyway, it will be an excellent occasion which can only be better in one way: YOU have got to be there

There's also a remixer hangout the day before centered around a yet-to-be-decided pub near to the hotel all the remixers and scene personalities seem to be staying at.

If you've bought a "ticket", you might be wondering where it is: well, it's a guestlist affair. I haven't forgotten about my promise of a PDF file, but really if your name is on the list, that will be enough to get you in. We're not, like, ticket Nazis or anything ;-). There may be the ability to buy entry on the door, but you'd be silly to count on it if you're coming from any distance.

The other CD released at the event will be Reyn Ouwehand's "The Bland, the Blithe and the Bizarre", which is an incredibly jolly CD with lots of favourites on it: some of them have been previewed on Boz's show on Slay Radio, so you know what to expect ;-)

So: be there or be square, and spread the word! I need you!! And you can meet Boz, Ziphoed, me, Jeroen Tel, Reyn Ouwehand, Marcel Donne, Slaygon, Kwed, LMan and Sunflower, me (again, since I'll be so stressed I'll have forgotten you from the first time), Anna Black, Makke, Romeo Knight, Skitz, and loads more!

"Back in Time Live 2007", Friday June 22nd, 2007
7pm-1am at the Spitz in Spitalfields, the City of London (<http://www.spitz.co.uk>).

C64 remixes and chipsounds, many remixer stars, and headlined by Jeroen Tel of the Maniacs of Noise, now a renowned DJ and artiste!

You can buy tickets for £10 at <http://www.c64audio.com/productInfo.php?cat=BITLIVE2007>

Other news...

Nexus 6581 Returns

FTC Kind of releases new album: 01:04 Eternal!

Richard Joseph Tribute album (supporting Macmillan Nurses Cancer Charity)

C64Audio signs Seth "8-Bit Weapon" Sternberger

C64Audio signs Tonka for new album, BASICally!

C64Audio.com to release Markus Siebold's latest album

"Back in Time 4/5/6 - What's that about??"

New-old material from Marcel Donne, Chris Abbott and Makke

Reyn Ouwehand to release new CD: "The Blithe, the Bland and the Bizarre"

Back in Time 1 and 2 Downloads feature exclusive edited 10th Anniversary booklet PDF...

Back in Time 3 Downloads feature exclusive novel based on storyline!

It's a lot of news so I wrote an in-depth chatty summary here:

http://www.remix64.com/c64audio_com_report_21_april_2007.html

THE BASIC BIBLE

By David Moorman

Here is an alphabetical list of BASIC 2.0 commands, functions, and operators. Browse through them. Try them out. Learn exactly what they do! Commands (com) tell the computer what to do. Functions (fun) perform magic on values or strings in the argument (within the parentheses), and must be used either in a PRINT command or as the object of a variable assignment. For example...

```
5 A = -1234
10 ?ABS(A)
20 V = ABS(A)
```

ABS(n) (fun)

Returns the positive value of the argument, whether it is positive or negative.

```
10 A = ABS(-123)
(A will contain the value of 123)
```

ASC(string) (fun)

Returns the ASCII value of a string character. If the string has more than one character, only the first character's value is returned.

```
10 A = ASC("A")
(A will contain 65)
```

ATN(n) (fun)

Returns the arctangent of argument.

```
10 A = ATN(1)
(A will contain 0.785398163 -- the arctangent of 1 in radians)
```

CHR\$(n) (fun)

Returns a string character for the ASCII value in the argument.

```
10 A$ = CHR$(65)
(A$ will contain an "A".)
```

CLOSE (com)

Closes a logic file. See OPEN for details.

CLR (com)

Sets all variables in a program to zero or null (empty strings). Use at the top of your program.

COMMD if (com)

CoMmand command. See OPEN for details

CONT (com)

CONTInue -- use in Immediate Mode to continue running a program. Will not work after an error or after editing the program.

COS(n) (fun)

Returns the Cosine of the argument.

```
10 A = COS(1)
(A will contain 0.540302306 -- the cosine of 1 in radians)
```

DATA (com)

Used with READ to load string or numeric data into variables or arrays. See READ for details.

DEF FNv(V)(com)

DEFines a FuNction. Need a complex math function several times in a program? Here is where you can create your own functions. The function's name always begins with FN, plus a single letter to identify it, followed by a variable within parentheses. This variable is used in the following math as whatever value you will later put in your FuNction. DEFine FuNctions early in your program.

```
10 DEF FNH(X)= INT(X/256)
20 DEF FNL(X)= X-FNH(X)*256
```

(These functions will divide a value into High and Low byte values -- used to address memory with some ML routines.)

```
30 A = 49152
40 ? FNH(A),FNL(A)
(The computer will print: 192 0.)
```

DIM v [,v [,v [etc]]] (com)

DIM DIMensions space for Arrays, and is required for arrays with more than 11 elements. You can also use DIM to tell the program which variables you are going to use. This puts the listed variables at the beginning of variable memory, so they are easier to find.

```
10 DIM A(12),X,Y,DT$(2,15)
```

END (com)

Ends the program.

EXP(n) (fun)

Returns the constant "e" (a math value) raised to the power of the argument.

```
10 ? EXP(1)
(This will print 2.71828183)
```

FOR v TO v [step v] (com)

Begins a FOR-NEXT loop.

```
10 FOR X = 1 TO 10
20 ? X
30 NEXT
```

FRE(0) (fun)

Returns number of bytes available for BASIC program. The argument is a dummy. NOTE: If the value is greater than 32767, a negative value is returned that must be added to 65535.

```
10 DEF FNF(x)= -(FRE(0)<0)*65535+FRE(0)
(This custom function will return free memory as a positive value.)
20 PRINT FNF(FRE(0))
```

GET (com)

Gets a keystroke into the variable that follows. A numeric variable is valid, but the program will crash if an alpha key is pressed. Use a string variable. GET just grabs one keystroke, if it is there. Use something like the following to grab keystrokes:

```
10 GET Z$: IF Z$ = "" THEN 10
20 ? "YOU JUST PRESSED <" Z$ ">"
30 ? "TRY AGAIN? (Y/N)";
40 GET Z$: IF Z$ = "" THEN 40
50 ? Z$
60 IF Z$ = "Y" THEN 10
70 END
```

GOSUB linenumber (com)

Jumps program to a subroutine at the given line number. Program will return to after the GOSUB command when it encounters a RETURN command.

GOTO linenumber (com)

Jumps program to the given line number.

IF <compare is true> THEN...

When two values or strings are compared, the result is either -1 (for true) or 0 (for false). In an IF-THEN command, if the value after IF is not zero (therefore true), the code after THEN is executed. If the value is 0, the program "falls through" to the next line. The code after THEN can be a line number to jump to, or more commands.

```
10 IF A=B THEN 1000
20 IF B=C THEN A = B: GOTO 10
```

INPUT (com)

INPUT allows the user to type in information in a program. Here are some ways to use INPUT.

```
10 INPUT"WHAT IS YOUR NAME";N$
20 ?"HELLO, "N$!"
30 ?"WHAT IS YOUR AGE (NUMBER ONLY)
40 INPUT AGE
50 ?"YOU WILL BE 100 IN"100-AGE"YEARS."
60 INPUT"PICK TWO NUMBERS, SEPARATED BY A
COMMA";A,B
70 ?"YOU PICKED:"A"AND"B"."
```

INPUT is an old command and can cause many problems. An input of a string when a value is expected will result in an error. If a comma is included when inputting a single variable string, it is interpreted as two string inputs, and everything from the comma on is lost. Also, the user can accidentally press a cursor key and move off the INPUT line, screwing everything up.

Therefore, use INPUT only as you are learning -- and always get a string variable. You can convert a string to a value with the VAL(string) function. Later, when you start to use a toolbox module or DotBASIC, you will have alternative INPUT commands available that work more dependably. With a little ingenuity, you can build an INPUT subroutine, using the GET command to get keystrokes and put them together in a string variable. Sounds like a good project, eh?

INPUT#f,v

Inputs a value or string from a disk file. See OPEN for more information.

INT(n) (fun)

Returns the next smaller whole value of the argument.

```
10 A = 123.456
20 B = -123.456
30 ? INT(A)
40 ? INT(B)
(The values printed will be 123 and -122. We did say "next smaller!")
```

LEFT\$(s,n) (fun)

Returns a string from string S that is N characters long.

```
10 A$ = "THIS IS A TEST"
20 B$ = LEFT$(A$,4)
(B$ will contain "THIS".)
```

LEN(s) (fun)

Returns the length of string S.

```
10 A$="THIS IS A TEST"
20 ?LEN(A$)
(Prints 14.)
```

LET (com)

The old fashioned way to assign a variable.

```
10 LET A = 12
20 LET B$ = "TEST"
```

This is not used anymore. Just put the variable first, like we have done throughout this book!

```
10 A = 12
20 B$ = "TEST"
```

LIST (com)

Lists the BASIC program in memory. Used in Immediate Mode.

- LIST > lists whole program
- LIST10 > lists line 10 (if present)
- LIST10- > lists line 10 and on.
- LIST-10 > lists everything to and including line 10
- LIST10-20 > lists lines 10 and 20 and everything in between.

You can slow down a LIST by holding down the <CONTROL> key (VICE: <Tab>), and stop it by pressing <STOP> (VICE: <ESC>).

LOAD "filename",dv [,sa] (com)

Loads a program or file into memory from a disk. If SA is 1, the file is loaded to the memory location from which it was saved. LOAD is usually used from Immediate Mode, but can be used in a program -- with certain caveats. If one tries to load a BASIC program from within another program, the loaded program must be either shorter than the loading program, or must have a CLR as its first command.

The loaded program will be immediately run. If LOAD is used to load a binary file, the program will jump back to the beginning and start over. We use other routines to load binary (data) files. See SECRETS later in this book.

LOG(v) (fun)

Returns natural logarithm of argument. Argument must be greater than or equal to zero.

```
10 V = 7
20 PWR = LOG(V)/LOG(2)
30 ? 2^PWR
```

This code uses LOG to find the power of 2 of the value 7. 2 to the PWR will equal 7!

MID\$(s,b [,l]) (fun)

Returns the section of string S beginning at position B to the end for the length of L.

```
10 A$ = "THIS IS A TEST"
20 B$ = MID$(A$,6)
30 C$ = MID$(A$,9,1)
(B$ will contain "IS A TEST". C$ will contain "A".)
```

NEW (com)

Erases BASIC program memory. Be careful!

NEXT (com)

See FOR-NEXT above.

ON v GOSUB In [,In [,In [etc]]]

Value V determines which line number GOSUB gosubs.

```
10 DIM C$(3)
20 FOR X = 1 TO 3: READ C$(X):NEXT
30 DATA "FIRE","RAM SPEED","RUN AWAY"
100 ?"CAPTIAN - WHAT SHALL WE DO?"
101 FOR X = 1 TO 3:?C$(X):NEXT
110 INPUT C$
120 Y = 0: FOR X = 1 TO 3
130 IF C$ = C$(X) THEN Y = X: X = 3
140 NEXT
150 ON Y GOSUB 1000, 2000, 3000
160 GOTO 100
1000 ?"FIRE"
1010 RETURN
2000 ?"RAM SPEED"
2010 RETURN
3000 ?"RUN AWAY"
3010 RETURN
```

This has got to be the shortest Star Trek game ever written! You can take it from here! If you have too many line numbers to fit on two screen lines, do something like this:

```
200 ON X GOSUB 1000,2000,3000
201 IF X < 4 THEN 100
202 ON X-3 GOSUB4000,5000,6000
203 IF X < 7 THEN 100
204 ON X-6 GOSUB 7000,8000,9000
205 GOTO 100
```

If the value is 0 or greater than the number of available line numbers, the program falls through. The value cannot be negative.

ON n GOTO In [,In [,In [etc]]] (com)

Just like ON-GOSUB, but with no RETURN.

THE HEX FILES

- PART 3 -

written by Jason

Welcome again, here's the third instalment of Hex Files for your delight, delectation and several other words beginning with the letter D that sound quite good. And, before we start proper, I'll just give you the solution to the little teaser I posed at the end of the previous article.

Now, one of the joys of machine code is that there are several ways to reach the same solution and, whilst some are better than others, they're all valid at this stage in the game.

So, whilst there are other methods that could be used (and if you found and used one, it's not the wrong answer!) the easiest way to modify the routine we were playing with in the previous instalment would be something along these lines:

```

                                * = $0900
                                ldx #$00
                                lda #$03 ; to change the character
loop                            sta $0400,x
                                inx
                                cpx #$0b ; to change the number of repeats
                                bne loop
                                rts

```

Okay, lets have some fun with a loop shall we? One of the most common things in demos (and in fact most games too) is the scrolling message and what we are going to do is a simple one with some limits. As we have seen from the example last issue it's possible to put characters on the screen very fast, so fast in fact that we can't actually see it happen.

It's also possible to move the characters around the screen using loops. Start up your text editor, tab a couple of times to get the cursor to its start position and enter this program:

```

                                * = $0900
main                            ldx #$00
move_loop                       lda $0401,x
                                sta $0400,x
                                inx
                                cpx #$27
                                bne move_loop
                                inc $0427
                                jmp main

```

Before we run it lets look at what you have typed. The * command is as we used before, telling C64Asm we want our code at \$0900 (again, 2304 in decimal). We then have a label called main which is the start of our main code (hence the name!) and that clears the X register again as we have done before. The main loop of the program (named with the appropriate label again) is new though.

It reads from screen position \$0401 and then puts whatever it has read into \$0400. Then the X register goes up one and it repeats that until X reaches \$27 (which is 39 in decimal). Why stop at 39? Well, by the time X gets to 40 (by the time we're checking X it's been INCRemented, remember) the routine is reading

from \$0428 (the start of the second line of the screen) and writing to \$0427 (the right hand end of the first line) so if we wait we would be reading the first character of the next line of the screen! Finally we just play with the character at the top right of the screen to make

something to look at (by constantly INCRementing it to make it show every character the C64 has).

Okay, lets crank it up and watch it go! Assembling is as before, save the file from the text editor as scroll.asm (the extension meaning "assembly code", not even vaguely essential to the process but it makes remembering what the files are a lot easier), type c64asm scroll.asm scroll.prg from DOS whilst in the correct directory and finally drag and drop the PRG into WinVICE and SYS2304 to start it.

Oh! Now something is happening but because machine code is so fast we can't see what, so we need to slow things down a bit and to do that I'll introduce a new friend in the form of one of the locations in the VIC-II chip.

Location \$D012 (or 53,266 in decimal) is known as the raster register. The raster is a line that moves down the C64's screen redrawing it fifty times a second and there are over three hundred "raster lines" on a standard PAL C64 (there are less lines and a faster refresh speed for NTSC machines) and it's possible to wait for a specific line and do

something when you get there. Lets alter our example to take advantage of this, go back to the source and enter the following just after the ldx #\$00 on the second line:

```
raster      lda #$fe
            cmp $d012
            bne raster
```

Save it back out this time as scroll2.asm and assemble it as before. These three new lines set the A register up with a value of \$fe (254 in decimal), then compare that to whatever \$D012 contains in the same way as we compared numbers in the previous installment and if it's not the same (in other words if the raster isn't at position \$fe) then the Branch if Not Equal (BNE) back to raster keeps it waiting in that loop until it is.

You should now see loads of characters scrolling across the top of the screen very fast but not so fast that you can't see what's going on. Don't worry about the odd jump, we are only experimenting at this point and every now and then the C64 will miss a beat because it's busy doing it's housekeeping at rasterline \$fe. Believe it or not this is moving fifty times a second! Okay, so one final trick for our new listing I think, flip back over to the text editor and alter the routine to read like this:

The source code for the routines above can be downloaded here http://www.oldschool-gaming.com/files/c64/hex_files/part_3_files.zip for easier reference.

```
            * = $0900
main        ldy #$00          ; this is new
            ldx #$00
raster      lda #$fe
            cmp $d012
            bne raster
move_loop   lda $0401,x
            sta $0400,x
            inx
            cpx #$27
            bne move_loop
            lda $a1ff,y      ; this line is new too
            sta $0427        ; the INC command      used to be here
            iny              ; and this line is new as well
            jmp main
```

Save the source out as scroll3.asm, assemble and execute again, and if you press the shift and Commodore keys you'll see words flying across your screen! What we are actually doing in these new bits is using the Y register as a counter and reading from the C64's memory at \$A1FF onwards for 256 bytes. So where do the words come from? Well, \$A1FF is actually where the C64 keeps some of its error messages and this is what you're seeing.

Well, I think that's almost enough for another installment but before I go another couple of little challenges for you all to see if you've got the gist; at the moment the routine reads it's data from location \$A1FF but can you change it to read from \$E460? And can you make it work on the second line of the screen rather than the first (remember to change all of the references to the screen). I'll give the answers in the next thrilling installment but If you have any questions about this article, machine code or Flamenco dancing, email me and I'll see what I can do. Oh, except about the dancing.

The source code for the routines above can be downloaded here

http://www.oldschool-gaming.com/files/c64/hex_files/part_3_files.zipfiles/c64/hex_files/part_3_files.zip for easier reference.

Printed with Permission from Jason : Taken from the

Oldschool gaming website
http://www.oldschool-gaming.com/c64_hex_files.php

Mr. LOADSTAR's Introduction to Programming the Commodore 64 Part II

By Dave Moorman

Now you have certainly played around with the PRINT statement. The question arises -- how can I put the text exactly where I want it on the screen? We have several ways. You might have figured out the first. Use embedded cursor keystrokes. This is easy

```
10 ?[clr][down][down][right][right][right]Test
```

And it looks like a mess in your program, with all those reversed characters. There are two better ways.

The first is a routine available from the Kernal ROM. These routines are what BASIC uses to do its magic. But we can use them directly with a couple of new (to you) commands: POKE and SYS. NEW your memory and try this:

```
5 ?"[clr]"
10 x=782:y=781:set=783:plot=65520
20 poke x,10:poke y,10:poke set,0
30 sys plot:?"This can be centered"
```

PLOT is a Machine Language routine. We use POKE (you can use a shortcut of "pO" to save typing) to put the X column in memory location 782 and the Y row in location 781. SET (783) must be set to 0 for this to work. Then the SYS command executes the ML code at 65520. You will notice that we can put more than one command on a program line, separated by colons. Actually, you have two screen lines available for each program line. Back to plotting text on the screen. The third way is to use a poke and the TAB command.

```
50 row=15:col=10
60 poke 214,row-1
70 ?tab(col)"This can be centered"
```

The key here is the PRINT after poking ROW-1 in location 214. If you want to put your text on the top line, use PRINT"[home]".

Either way of plotting is just fine -- you choose.

LOOPING THE LOOP

While all this is fun, the greatest power of a computer is to do things over and over again. Repetition makes the world go round! NEW your memory and type in this simple code.

```
10 ?"[clr]"
20 ?"Hello, World"
30 goto 20
```

Before you run this, try to figure out what will happen. The GOTO command is new, but it is fairly obvious. Now, run the program.

WHOA! Look at it go! When will it stop?

It won't. This is called an "infinite loop," since it will infinitely print "Hello, World!" on line 20, then goto

line 20, where it prints... but you get the idea. In fact, you may be looking at it in action, wondering what to do. Since you are programming in BASIC, the answer is simple. Press [STOP]. The result is not particularly elegant, what with

```
break in 20
ready.
```

appearing on the screen. But this IS an infinite loop. Be happy we have a [STOP] key! (Have you ever had your Windows PC "hang?") No combination of keys, not even the magical [CTRL-ALT-DELETE] will get back control. Guess what kind of error some programmer made! Yep -- an infinite loop -- with no way for the user to get out. That can happen in Machine Language. Infinity is great, but we need more control. *More POWER!* We need to be able to stop the loop when we want it to stop -- when the conditions are right.

Behold! The "conditional loop!"

```
10 ?"[clr]"
15 x=0
20 ?"Hello, World!"
30 x=x+1
40 if x<10 then 20
50 end
```

Here, we use X as a counter. You do not *have* to zero out X as in line 15, but it is a good idea. You never know where that X has been! Line 20 prints the text, as before. Then line 30 **increments** X. Now, if you are not familiar with programming, saying X=X+1 sounds a little crazy, since in algebra, X can never equal X+1. But the equal sign here is not equal. It is the sign to assign X with the value of X+1. Long, long ago, even before home computers, BASIC had a command for this. Change line 30 to

```
30 let x=x+1
```

Now, as you read this out loud, the equal sign makes more sense, since LET lets X change its value. Think of it this way. X is a box, right? Inside that box, at the beginning of the program is a value of nothing. So, we take the nothing out of the box, add one to it, and put the result back in the box. The program loops, and now X contains 1. We take out the 1, add 1, and put the result back into the box. This is exactly what happens with any value assignment. You don't need the LET command, so don't waste your time or your computer's memory. Whenever a variable is followed by an equal sign, the genie knows an assignment is about to happen. Now that you understand incrementing, lets look at line 40. This is the IF-THEN command. The genie looks at the comparison following the IF. In this case it is X<10. That's "X is less than 10." If that is true, the THEN happens -- in this case, the program goes to line 20. If X is not less than 10, the IF-THEN is said to "fall through," and the next program line is executed.

Any two numeric values (variables or constants) or any two strings (variables or literals) can be compared this way, using one of these comparisons:

Equals	=
Greater Than	>
Less Than	<
Greater or Equal	=> (or >=)
Less or Equal	<= (or =<)
Not Equal	<>

The IF-THEN command is what gives the computer its intelligence. You might have noticed that the genie is not too bright. It does exactly what you tell it to -- if it understands what you mean. (I will bet you have suffered a lot of **SYNTAX ERRORS!**) So with the IF-THEN command, we tell the genie to change the flow of the program when a certain condition applies. And counting is just one possible condition. Here is another

```
40 if peek(198)=0 then 20
45 poke 198,0
```

Here we are using another "system resource," a location in memory that BASIC uses for its own purposes. Location 198 holds how many times a key has been pressed since the last time keypresses were collected by the system. And, how about that -- we have encountered another command. PEEK(loc) peeks under BASIC right into a memory location itself. And we are fortunate to have PEEK, POKE, and SYS, because the C-64 has a lot more power than BASIC 2.0 can handle.

In this case, we are looking at the keyboard queue, the number of keystrokes waiting to be processed. If 0, then the program loops. If not, we POKE a 0 into 198 (to clean things up a bit), and end the program. I probably should have put 198 in a variable

```
16 key=198
```

```
40 if peek(key)=0 then 20
45 poke key,0
```

Looks much nicer, eh? However, as you learn your way around the C-64, you will discover 198 is one of those locations you will naturally learn by heart. As with all programming, we have more than one way to do most anything. That is part of the fun -- finding the best way -- for speed and/or elegance -- to accomplish a goal. Time for another tiny program, so NEW and enter:

```
10 ?"[clr]"
20 ?"Hello, World!"
30 getz$
40 if z$="" then 20
```

The GET command gets a keystroke, if any, and puts it in the string variable you designate. I *always* use Z\$. It is a habit of mine. In fact, I use Z\$ for nothing else. The comparison in line 40 is to see if Z\$ holds anything -- or rather, if it is equal to nothing, which is indicated by two double-quotes. As long as it holds nothing, the program loops. This is more elegant, than the PEEK(198) -- and full of possibilities.

Because we can string strings together. Did I mention "concatenation?" It is a powerful ability of BASIC. Here is yet another small program to try. I do hope you are typing these in, looking them over, running them, then listing and looking at them again. I know I am, even as I write.

```
10 ?"[clr]"
20 w$="":c$="<"
30 ?"[home]"w$c$
```

```
40 getz$:if z$="" then 30
50 if z$=chr$(13) then end
60 w$=w$+z$
70 goto 30
```

You just wrote your first attempt at a word processor! It's not a Good word processor. In fact, as you play with it, you might notice it's not even a good input routine. You will notice this most if you try using [Delete] or a cursor keystroke. The displayed text gets all messy.

But lets look at what we have done. We put nothing ("") in W\$, and a little pointer ("<") in c\$. Then we print them on the home row in line 30. Notice, you don't *have* to use semi-colons between string variables. The \$ tells the computer where each variable ends.

Then we get Z\$. If it is empty (called "null"), we loop back to the same line number. OOPS! We loop to the print line. Change line 40 to go to line 40. It is neater that way. If a key has been pressed, line 60 adds (concatenates) Z\$ to the end of W\$. (What would happen if you used W\$=Z\$+W\$? Then the program loops.

Now line 50 is interesting. We must check Z\$ for a [RETURN] key press. Bu t we cannot use a [RETURN] in the program line, because it will enter the line into memory. So we must use a CHR\$(n), which turns a number into a character string. You might try this:

```
?chr$(65)
```

You should see an "a" printed on the screen. Every character has a number. In fact, inside the computer, there are no characters -- only numbers. CHR\$(13) is the RETURN character. This is another number you will surely memorize by osmosis.

So, if Z\$ holds a RETURN, then the program ends. That simple.

But how do we get rid of those things that mess up the printing of our line? If you guessed, "Using IF-THEN commands," you are right. Now to figure out what numbers to put in such commands.

Add these two lines to the top of your program:

```
1 getz$:ifz$="" then1
2 ?asc(z$):goto1
```

ASC(\$) returns the number you put in CHR\$(n) to get the character. So press [a]. Yep -- 65. Lets try several other characters we do not want in W\$.

Delete	20
Insert	148
Cursor Up	145
Cursor Dn	17
Cursor Lft	157
Cursor Rt	29
Home	19
Clr	147
Colors	
Black	144
White	5
Red	28
Cyan	159
Purple	156
Green	30

Blue	31
Yellow	158
Orange	129
Brown	149
Lt Red	150
Dk Gray	151
Med Gray	152
Lt Green	153
Lt Blue	154
Lt Gray	155

Now, that is quite a list -- and doing an IF-THEN for each one would take a lot of lines -- and a lot of time. But perhaps you see a pattern here? These numbers fall into two ranges: 5 - 31 and 144 - 159. So we can eliminate these keystrokes with two IF-THEN commands. First, break out of this loop by pressing [STOP]. Then type

```
1 [RETURN]
2 [RETURN]
```

That is all you need to do to remove a program line -- enter its line number.

Now add these two lines:

```
54 z=asc(z$)
55 if z>=5 and z<=31 then 40
56 if z>=144 and z<=159 then 40
```

List your program and follow the logic. We have used ASC(z\$) to get the character value (called the ASCII value) of the key press. Then we see if Z is Greater Than or Equal To 5 AND Z is Less Than or Equal To 31. The AND means that *both* conditions must be true for the IF to be true. Imagine Z= 29. Is 29 Greater or Equal to 5? YES. Is 29 Less or Equal to 31? YES. Then 29 is in the range of 5 - 31 -- and we loop back up to line 40. The same works in line 56 for the higher range.

AND is a Logic Operator, and works like this:

A	AND B	Result
False	False	False
False	True	False
True	False	False
True	True	True

So, only when A AND B are True, then the Result is True. We have another Logic Operator we can use in IF-THEN commands: OR

A	OR B	Result
False	False	False
False	True	True
True	False	True
True	True	True

If either A OR B (or both) are True, then the Result is True.

And with this, we can put both IF-THENS into one:

```
55 if (z>=5 and z<=31) or (z>=144 and z<=59) then 40
```

As with math, the comparisons are done in the parentheses first. So if Z is in either range, then the program loops.

Now -- that may have you scratching your head. Don't worry. Many concepts take time to take root. So, while we are on the subject, let's look at exactly happens in a comparison.

```
1 a = 7
2 ?a<10
3 ?a>10
4 end
```

Run this dab of code. You should get

```
-1
0
```

In the BASIC of the C-64, true is -1 and false if 0. And if you must know, the IF-THEN command only worries about false. Add these lines:

```
4 if 0 then ?"False"
5 if 1 then ?"True"
6stop
```

You will see that checking for a 0 in a variable is very easy. These two lines do exactly the same thing:

```
if a<>0 then 50000
```

```
if a then 50000
```

But if I confused you, I do apologize. Forget it.

Or better yet, PLAY with it. We have covered a lot of ground in this section. We have given you almost enough to write an arcade game!

You know how to print.
 You know how to position your printing on the screen. (**sys plot**)
 You know how to get keystrokes. (**getz\$**)
 You know how to do math with numeric variables.
 You know how to use IF-THEN commands to add some intelligence to your computer.
 What is left?

Lots of stuff! But you have the essentials. Try to use the cursor keys to move a dot around the screen. Here is a good piece of code:

```
150 getz$:ifz$=""then 150
160 ifz$="[left]" then x=x-1
161 ifz$="[right]" then x=x+1
162 ifz$="[up]" then y=y-1
163 ifz$="[down]" then y=y+1
```

That should get you started

The more you fiddle around with these ideas, the more you will be ready for our next lesson.

DMM

Interview with Jeff Ledger

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

Q - Please introduce yourself to our reader

My name is Jeff Ledger. I live in Orrville, OH with my wife, and three children, Michael, Matthew, and Michelle.

Q - What is your involvement with Commodore machines

The Commodore 64 kicked off my fascination with computers at an early age. My addiction with technology continues to this day, as I spend my days as a self-employed technologist, dealing with more modern machines during the day, and tinkering with my Commodore machines in my hobby time.

Q - you run the website www.petscii.com please tell our reader about the site

A few years ago I started a website for a C= project I was working on at the time, one website became several with multiple domains. So PETSII.COM is an attempt to bring everything under one roof.

Q - you also run the forum

<http://jledger.proboards19.com/index.cgi>
Available as a link from the main website what does the forum cover and who is welcome on this service

The PETSII forums were never really intended to become what they have. Originally, I started the forum area as a place to easily post personal updates about a project at the time. Over the past few years it has morphed into a valuable resource for Commodore enthusiasts. Sections include TELBBS, CML, uHacking, DTV Hacking, SSOCC, Retrobits Podcast discussion, and Leif's Artillery Dual. The forums are moderated strongly, to encourage "Good Taste & Good Judgment" and discourage personal flame attacks and wars. Anyone is welcome to sign up and enjoy good conversation. The forum also has the address of <http://forums.petscii.com>.

Q - you also have links to CML tell our reader about CML who created this language and what is its usage

CML, or Commodore Markup Language is a concept of a parallel web running embedded inside of existing WebPages, just for my favourite machine. Initially, it was released with a PC server program, which would fetch WebPages at the request of a 64, parse them for CML commands and send the results back over a serial link to be displayed. That rendition featured the ability to embed petscii graphics, Function key hyperlinks, and sprites into a standard website, hidden in the remarks, which CML could read and translate into 40 columns internet.

Currently, CML is being integrated into Temporal VortexTelBBS (bbs.petscii.com port:6400), and being rewritten to use "spice" for graphics and sound.

Q - What sort of level user would you class yourself

My wife would answer this question with the word, "continuous." On the Commodore front, I consider myself an "extreme power user." I'm still working my way through my autographed copy of Jim Butterfield's

machine language book. I spent most of my time, back in the day, caught up in the piracy and BBS scenes. Sometimes a lack of knowing all the rules works well for me because it allows me to be creative without knowing that "I really couldn't do something." I'm a dangerous man with a soldering pencil, but

perhaps that makes me the perfect person to pave the way for others who are too timid to start their own C= hardware or software project. I'm a big promoter of people learning how to make their own interfaces, or cables, etc. I think people today have forgotten the thrill of accomplishment to be had in making something themselves and seeing it work.



Q- What Commodore machines do you still own and use

Several Commodore 64's have found safe harbor at my house, A couple 128's, a couple VIC20's, an Amiga, even a couple +4s. are stashed around somewhere. An SX64 loaded with JiffyDOS is my favorite and can be found on my worktable ready for use.

Q - Did the petscii site go down for a while, I noticed a statement "Many personal projects which were put "on hold" this year due to serious real life concerns" were you ill and the main question are you ok now?

Yes, I did duck out of the scene for most of last year. 2006 was a rough year for our family. We discovered that all three of our children have Wilson's disease, which is a genetic problem with the liver. It's a scary thing to discover that your children have something for which there is no cue. With adjusted diet, and medicine they will continue to live long healthy lives. We all had to go through adjustments and many hospital visits while this was gotten under control. Everyone is doing better now.

Q - what can our reader do to help out PETSII.COM

Join the forums and get involved in conversation!

Q - Tell our reader about Qlink and its revival - how is the project going

Quantum Link Reloaded is an amazing project that was headed up by Jim Brain. It is a recreation of the Quantum Link server running in Linux, which is able to communicate with the original Qlink client software to permit multi-user chat, games, and messages.

Quantum Link demonstrates many features we take for granted now with the Internet. It can be used from both VICE emulator, as well as a true 64 with a serial connection.

I know that readers outside the US will have little familiarity with the original Qlink service, but it was a hot item back in the day. In 1990, Quantum Link became America Online, dropping the Commodore service.

Quantum Link Reloaded is a remarkable demonstration of what is possible when several people come together share their piece of the puzzle. I'm proud that Petscii forums was able to become the place where everything could be brought together. <http://www.petscii.com/qlink> for details.

Q - one great project is the "Jeff Ledger's guide to getting your Commodore online." available from the TELBBS link on your website and from here <http://www.petscii.com/telbbs/c64online.pdf> I downloaded another copy as I notice its been updated, the version I am looking at is March 2007 please tell our reader about this resource

This guide is a step-by-step walkthrough for getting the Commodore 64 connected to a TelBBS using a simple serial to PC connection. I've updated it this year to include emulation variations as well. Here's a list of what is in this guide:

CONNECTING TO TELBBS SYSTEMS
CONNECTING TO DIALUP BBSES WITH WINVICE
TELBBSING WITH OLD SCHOOL TERMS FROM WINVICE
CONNECTING WITH HYPERLINK WEB BROWSER

Complete information about Commodore TelBBSing can be found at <http://telbbs.petscii.com>.

Q - What plans do you still have for the PETSII WEBSITE?

I have more Commodore related archives and information on various projects and interfaces which I haven't had time to post yet. As time permits, the site will continue to expand.

Q - Do you have any other plans in the pipeline for Commodore Machines?

In the last couple years, I've found myself inspired by some of the great work in the form of hardware devices that have been created from many directions for our favourite little PC.

I've spent some time Discovering the world of programmable microprocessors, first with the simple PICAXE chip, now with the Propeller chip created by Chip Gracey. (You might remember that name, as he was the one who created ISEPIC, a game cracking device back in the 80's) These inexpensive microcontrollers provide a lot of bang, and in my opinion provide Incredible add-on power for the Commodore.

I released beginners guide last year for interfacing the Commodore 64. It can be downloaded from <http://www.petscii.com/c64interfacing.pdf> Part 2 is currently in the works.

Q - I see you as quite a leading figure in the Commodore Community would you like to comment

I'm flattered, but I really don't see myself as anything more than a Commodore activist with a big mouth. <grin> Our community is privileged to have some real magicians in our ranks. I'm always impressed with the caliber of people I'm able to rub shoulders with at the expos and shows.

Q - What's next for Commodore, when will the limit of the machine be reached

Every time I suspect we've found the limits, it seems that I glance up and see miles to go.

Q - I notice Commodore gaming have released a "gaming machine" basically a Fast pc in a custom case would you like to comment.

I'm truly saddened by what I see is the exploitation of the Commodore name.

Nothing about these new PCs resembles the innovation produced by the Commodore Business Machines of years gone by. If the new Commodore wanted to hold up the standard, they should be creating new technology and innovation instead of knock off hardware that already exists.

I suspect the Commodore name was purchased for the use of name recognition reasons alone. At least I have some comfort in knowing that a Google search produces top links to the proud heritage that is and once was Commodore.

Q - If you had 1 million pounds what would you do with it?

Hmm.. Let's see, that's around \$1.9 million US dollars at current currency rates. I think the first thing I would do is buy the Commodore brand from it's current owners with an offer they couldn't refuse, sell one dollar shares of Commodore stock to the current community users, permitting them unlimited use of the trademark and name for non-commercial C= projects and software with the purchase of a single share of Commodore.

Commodore should be returned to the people who truly love her. A quarter million would be spent on the biggest computing museum anyone has ever seen, complete with hands-on labs, meeting rooms, and, educational resources.

Q - and finally is there any question you would like to have been asked

I've probably expanded your file size by double already with the length of my answers. You've done a good job interviewing!

Q- Jeff thanks for your time

My pleasure.

Commodore Scene VGA Adaptor update

The C=VGA adaptor Update

www.commodorescene.org.uk LATEST UPDATE - 26th February 2007

Hi everybody, updates to the C=VGA page (and all the other pages here too for that matter) have not been foremost on my job list recently :-)

I am still in the throws of sorting out the mess of all the refunds from orders relating to Maurice. Unfortunately I am only one person and as I am having to do extra work to refund people I have had to put all thoughts of Commodore related matters to the back of my mind

So, whats happening with the C=VGA ? Well, after a spell of not being able to contact Neil about the project I have finally managed to have a chat with him and simply put, he no longer can continue his work as his time and expertise are needed

elsewhere - BUT - that is not the end of the C=VGA. This is what I have planned, in May I am in Florida on a family holiday, I will be collecting all my Commodore stuff from Neil and any stuff relating to the C=VGA and bringing back to the UK with me. Between now and then I am having talks with two or three people to see if it is viable to continue the project and get it finished this year.

If nobody is willing to finish off this project then it will be cancelled and all money will be refunded to those who contributed over the years. On a personal note, to see this project fail would be a huge blow as I have spent a lot of time and a huge amount of money and hardware on it. Also, if this fails I will have the added hassle of refunding the money, most of which has been spent on purchasing components, software and all the other bits and pieces that go into such a project.

So, by the end of May 2007 we will know one way or the other if the C=VGA will be completed or terminated. Here's hoping !

Note : I have just tried to send everyone on the email list an updated note but the list is corrupt (yet again), I can't be bothered to rebuild it for a fifth time so all future news will be made here unless I can find a recent working email database.

UPDATE - 28th November 2005

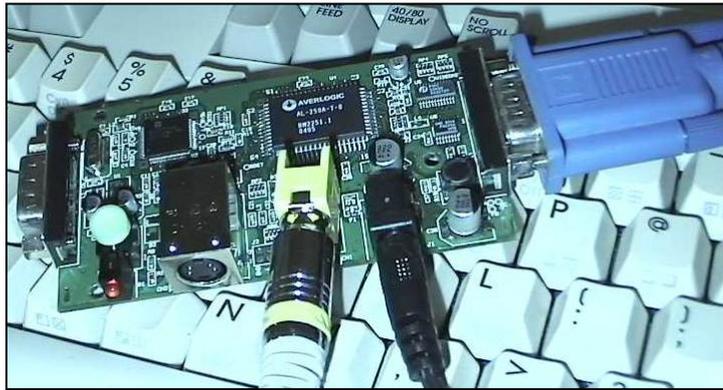
Recently a few very good questions were asked about the output resolutions. I thought you'd like to read what was said :

1) What native resolution will the VGA-screen run in? 640x480x60Hz fixed for NTSC, 768x576x50Hz fixed for PAL. This is a limitation of the VGA signal

generating chip used. Output looks great on LCD's [CRTs flicker a bit but look good otherwise]

2) How can you make the picture crisp when the PAL-output of the 64 is already so bad?

The picture is crisp because the output is a 1:1 reproduction of the NTSC/PAL signal (minus some pixels on the top/bottom/left/right).



3) Did you check that Interlaced pictures don't cause lines?

I've had this behaviour with various digitizing-systems (mostly DV) before, and from what I gathered it boils

down to this:
The standard viewable PAL-

signal has 625 lines, and the c64 only provides 624 (312 rasterlinesx2 halfpictures). So apparently the Framebase corrector tries to "fix" this and moves half of the interlaced picture up a little bit. This leads to very ugly lines that only show with interlaced pictures, especially IFLI! The NTSC/PAL-to-VGA routine is built into a hardware chip... It looks pretty good. Not studio-good, but good for home/game use.

4) It WILL use the much better Y/C signal as a basis for the conversion and not FBAS, right?

Yes.

5) Doesn't 100% smooth scrolling require some sort of weird not-quite-up-to-spec refresh rate most VGAs cannot do? Like 49 Hz or sth? Will there be problems with devices that aren't as flexible with timings as CRTs or TFTs like e.g. a beamer or a Plasma-TV?

The chip uses 50hz to my knowledge. I've watched several PAL and NTSC scrolling demos, there is no noticable tearing or artifacts that I can see, at all.

UPDATE - 19th November 2005

As the testing of the 80 column mode of the C128 is soon to begin I thought it would be nice to share our thoughts with you all. Test test the C=VGA to its limits it was decided to use the ultimate demo - The VDC Experience - because this demo is so specific in not only the type of c128 you use but also the type of monitor you have, it will be VERY demanding. Not many people in the UK have seen this demo and I doubt ANYBODY in the USA will have ever seen it at all. To give you an idea, you need a German C128 with 64k VDC ram and a 1084 monitor, nothing else will do.

UPDATE - 24th October 2005

From Neil ~ "The CNC is finally up and running today, I'm running some boards on it now. I've been learning my CAM program, which is 1006 pages long.... I also had to buy a CNC control program to run the machine, which was \$160, with its own 500+ page manual. Also I had to modify a script to get my schematic program to convert its format to my machine. I finally got it tweaked enough to try some boards, I'll try to have some pictures to you tonight, if I have time.

Now I should be able to prototype the latest version of the C=VGA board and try it all out. I wouldn't say it's ready to CNC it yet, but very soon... I'll keep you posted on the progress anyway."

UPDATE - 3rd September 2005

Here is the abridged version of the latest e-mail from Neil :-

I'm still here, I assure you I have been making progress lately.... I've just been very busy at work, working overtime, plus going to school....

Having 20 or so minutes every night doesn't really work for engineering stuff, by the time you drag everything out, you're throwing everything back into a box.... (I've moved again, but I won't bother you with that). Working on weekends doesn't help either... We will be having Labor Day this Monday, so I'll get a lot accomplished then. I've gotten most of the problems out of the way, #1 being the fabrication part... I bought a CNC mill about a month ago (see picture to right).

It's a full CNC mill, accurate down to 0.0005" on the finished part (0.00127 centimeters).. it will do aluminum, steel, plastic, brass/bronze, stainless steel, titanium, etc... anything a fullsize can do. I'll be using it for the front and back connector panel on the boxes (see picture to left). All the square holes will be machined into rectangular plates... I'll be buying the material anodized, and then engraving the text into the anodization...

The circuit boards will also be milled (my last stopping point was so that I could get the CNC working to make my next prototype board). I will be using 0.012" end mills, along with carbide drills to make the design... (then a 60 degree spade cutter to score the boards, you break them apart after being milled) the parts will be surface mounted to save cost (labor and component costs) using a hand pick-and-place machine, that I have access to, a Dima FP600.

A quick throw through a reflow oven (also in the same building with that machine) will produce a professional quality board. This will save me from having to manually solder 100+ boards (which I would never have time for :) This way, I should be able to do 100 boards in an 8-hour day, and be done.

I have the SAA7110 talking to the microcontroller (I had to write some I2c routines from scratch), I just have to assemble my new prototype board to see if I can look at video...

Right now I am waiting on a replacement defective stepper motor for the CNC, which I will need before making a prototype board. I'm also currently installing a digital readout system (which reads the XYZ position and spindle RPM and displays it on my computer) in case the stepper motors lose "count"... I'm also replacing the power supply with one I found

on Ebay... My lab power supply is only 3 amps, not enough for smooth operation. I recieved a 10,000 RPM kit this week which allows me to spin the motor fast enough to do boards. I'm also rigging up a vacuum system with a Hepa filter to keep the fiberglass dust down.

I'll hopefully give you another update once my motor is in and I machine a board or two ~ Neil

All those people who have pre-ordered to kick start this project will be pleased to know that we are now discussing what we can do to your C=VGA's to make them extra special. Rest assured that nobody will have a C=VGA like yours ! We'll keep it a surprise for now ~ Allan

UPDATE - 27th August 2005

Okay then , this is where we are at the moment : The only working prototype that we have at the moment has be undergoing lengthy programming to align the NTSC 40 column signal, this was difficult and took a VERY LONG time but it is now complete.

Suprisingly, when the signal was adapted to try out the PAL 40 column it worked first time !! To prove it worked as intended Neil tested a PAL c64 with a 19" LCD screen running the extremely beautiful but yet very graphically demanding Deus Ex Machina demo* - and it worked superbly. So there we have it, at the moment the 40 columns side of things is working fine so we now have to get working on the 80 column mode. I'll keep you all posted. Oh, I've also updated the questions and answers below.

* If you want to see this demo for yourself you can download the d64 images from here - 1 - 2 - please note that this is a PAL demo only and will not display correctly on an NTSC machine, that is, until the C=VGA is ready :-)

From Neil - "As mentioned before there is a 50hz flicker that is noticable on CRT monitors.... It does however look GREAT on my 19" Dell LCD at work :) No flickering at all, since there are no phosphors to dim between scans.... "

" I've been using "Deus Ex Machina" for testing, it truly looks beautiful on all of the displays I've tested it with. The scrolling/animation is PERFECTLY smooth, no tearing or artifacts.... The C64 'interlacing' trick of alternating pixel colors to increase the pallette works just as good as on my 1702 C= monitor. The colors on the LCD look more vivid than the 1702, which could be a good or bad thing... I haven't tried to tweak the colors yet, but it shouldn't be hard to do. "

" Now I just have to complete my new prototype, It's built, but I need to change some things around and start the firmware... I only have an hour or two every day after work for personal projects, using my works' facilities and test equipment.... but again, the prototype stage shouldn't take long at all.... the design work has already been done. "

Most of all - please, please remember folks, this project is being done in Neil's 'spare time' so that is why it is taking so long, be patient, we ARE getting there and I guarantee it will be worth the wait. Pre orders are no longer being taken - any further cost will be funded by myself or the developer .Please e-mail Commodore Scene magazine Any technical queries will be forwarded onto Neil for him to answer.

If you want to be put on the mailing list for the C=VGA then contact here to add your name. If your name should be listed please email me with your details. NOTE : The final price of the C=VGA is not decided yet. Pre-ordering is now on hold and no further money will be accepted until we can get the first few units dispatched and tested.

Some questions answered :

Will work with the Amiga 1200 ?

- We've had this question a few times and the honest answer is we just don't know enough about the Amigas audio/video outputs to say yes or no ! When the first units are ready for testing I will be handing out some to a couple of Amiga guys who will be testing various platforms for me. The Mk2 C=VGA will work with a wider variety of older computers and we'll try to make sure the Amiga is one of them if it doesn't work with the Mk1.

Will it work in c128 / 80 column mode ?

- Yes. The C=VGA will work in c64/40 column mode, c128/40 column mode & c128/80 column mode.

- All colours will be supported unlike older adapters where 80 column mode was in B/W.

How much will it cost ?

- Estimates for the basic device are US\$35~40, UK£24~30 and 40~45 Euros.

Can I pre-order ?

- No, pre ordering is now suspended.

Will it be PAL compatible ?

- Yes, the device will be PAL and NTSC compatible.

Will it be available in my country ?

- Yes. Worldwide distribution is already in place via the Commodore Scene Importing Service and we have a USA distributor too.

There are already video converters available, why not use one of those ?

- Have you tried one ? I have and believe me they are awful. No converter ever made supports RGB 80 columns in full colour. This device is being made specifically for all the Commodore outputs.

Will it be blurred like older adapters ?

- No, it will be crystal clear and flicker free in ALL modes.

What will the final build quality be like ?

- The final device will be fully enclosed and very tidy. The developer takes great pride in all his projects and his other devices are of the highest build quality.

Will there be a VGA pass-thru port ?

- Yes.

How will the unit be powered ?

- Not sure just yet, we are working on several options but a good option would be to use a currently

available source such a Commodore peripheral so that a simple 'piggy back' plug could be used.

Can I use any size monitor ?

- Probably yes but until the prototype is running it is hard to say what the quality of output will be. A 14"/15" monitor would be about the size we currently have so that should look okay. The prototype has been play tested on a 19" Dell LCD monitor and gave superb results. Problems during testing mean that older CRT monitor probably won't work well but most LCD's should be fine.

Will I be able to use my laptops monitor ?

- If your laptop allows VGA 'in' then I don't see any reason why not.

Will it have a scan doubler ?

- This device IS a scan doubler, it also has some nifty DSP (digital signal processing) functions to improve smoothness and flicker.

What will it look like ?

- It will be professionally finished off in a nice box with a pretty logo on it.

What happens if it doesn't work with my monitor ?

- We hope the finished device will be 'firmware upgradable' so if any 'tweaking' is required it can be updated easily in situ by the user.

Will I need a specific monitor type ?

- No. Any monitor with an (S)VGA input can be used, including TFT's ! Probably best to steer clear of older CRT monitors.

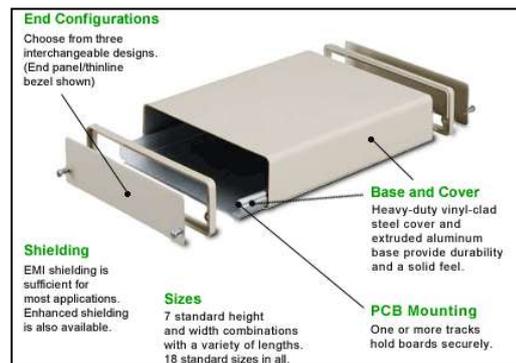
Will it do anything else ?

- Well the developer has been working overtime on this and he predicts many enhancements such as 'hot keys' for mutiple computer switching, mouse control and loads of other ideas. All these extra features will cost more so for the time being the first units will be simple Commodore video & sound in/out converters.

What about the sound ?

- Sound is taken from the c64's audio/video port and output through a stereo jack port

For more information visit www.commodorescene.org.u



Happy Birthday, System 3!

By Boris Kretzinger

The legendary publisher was founded in 1982 by Mark Cale and Emerson Best. They began with games for the Atari 800, on which they debuted with "Colony 7". Their first major breakthrough, however, was on the Commodore 64 with International Karate and the Last Ninja series.

Today, those classics are supposed to rock the market once more: with Epix titles licensed, System 3 is going to revive California Games, Impossible Mission and last but not least: The Last Ninja. Cale, still head of System 3, wants to stick to the old game play and only adapt the controlling - a necessity with Nintendo's Wii console in crosshair for the remakes.

"You gotta keep the game play mechanics the same or else it ceases to be the original game and you're only using the game brand to sell games. [...] The way the controllers work and the whole idea of it actually works a lot better than if it's done on the PS3 or 360", says Cale.

"What we're doing is we're incorporating the original gameplay and mechanics and bringing the gameplay up to date ..." Let's wonder, how California Games can be played with a nunchuck ... Skating ... Surfing ... BMX ... this promises to be interesting. We'll wait and see.

But let's take a look back on their greatest hits and introduce this with a last quote from Mark Cale: "It's hard to believe that we've been here for 25 years. We've seen a lot of changes in the industry and lots of people, systems and ideas come and go. One thing has stayed though - great games will always stand the test of time." Amen!

DEATH STAR INTERCEPTOR

1984 publishes System 3 their first Commodore 64 game. Without the Star Wars title licensed, the force isn't with them. Death Star is nothing extraordinary.

INTERNATIONAL KARATE

In 1986 International Karate rocks them all: in the US alone (on all platforms) they sell over 1.5 million copies. The game stays for three months on the number one billboard position.

IK+

IK+ was released in 1987 throughout Europe and becomes a bestseller, too. By the way: according to Capcom, this game is the inspiration for their famous "Street Fighter 2" ...

BANGKOK KNIGHTS

Martial Arts Movies continue to be successful and there is no reason for Cale & Co not to follow this path. Bangkok Knights features huge sprites, digisound, a hot numbers girl and music by Rob Hubbard, who couldn't resist to implement a small musical homage to Rocky IV ... do you know where?

THE LAST NINJA

In 1987 the first title of the series appears. Technical outstanding and hard to complete, this game breaks all records: the c64 version sells over 750.000 times, all in all and around the world System 3 brings out far more than 2 million copies. This game has to be the most copied game of all time! Ben Daglish contributed an astonishing soundtrack, which is even today very respected.

THE LAST NINJA II

The second part follows in 1988. The game sells out everywhere on its day of release. Altogether they sell over 1.2 million copies world wide.

DOMINATOR

Dominator is a reminiscence to their beginning on the Commodore 64: the shoot'em up genre. Technically great, but hell to play (through), the title can't hop above other average titles. Graphically nice to look at, the music is dark and melancholic. Today, this game can only be recommended to hardcore shoot'em up freaks. There are better titles out there.

MYTH

Myth - History in the making also comes out in 1989. Interesting: the Famicom version of this title comes out as "Conan" in the US. In Great Britain, the game comes along in a special Commodore Amiga 500 package. Despite that, it sells about 400.000 times world wide. Maybe interesting for collectors: there is a cartridge version around.

TUSKER

Tusker looks a bit like an unlicensed Indiana Jones title. It isn't a bad game at all, but gets often neglected when looking back on System 3. Too bad that they decided to do it in 2D instead of the isometric perspective they did for Last Ninja. Perhaps this is one reason for the game not being a smash hit.

VENDETTA

In Spring 1990 Vendetta looks and plays like The Last Ninja. At the end of every level, the player has to drive with a car to the next location. A nice game, even the intro looks good, but as for the music: the game doesn't have a top score.

FLIMBO'S QUEST

Cute is the first thing that comes into one's mind when looking at Flimbo's Quest. And this is indeed a children's game - the first from System 3. Why they did it? Hell, who knows. The only thing that could be of some interest is, that Commodore (GB) packaged it with every Commodore 64 GS.

THE LAST NINJA III

1991 - at last - the third part of The Last Ninja comes out and, for once more, sets high standards. The "Your Commodore" magazine rates this title 100%, and, though a bit too high, they clearly underline the extraordinary position of this game. By the way: Last Ninja IV could be out this year - though not for our Commodore.

TURBO CHARGE

Turbo Charge also appears in 1991. Very hot Intro, average story. The ones who drove from level to level in Vendetta might have a kind of dejavu: we're playing the further developed engine of that racing part. For me, this is one of the nicest games from System 3. And a tip for all those of you, who don't want to play through Last Ninja again - either because they don't want to or they simply cannot do so. There is a cartridge version of this game, too, but who has ever seen it? Not only friends of "Outrun" will have fun with this title. Everything seems to be right here, but just go and try it out yourselves!

Commodore BBS list

I would like to formally announce the "resurrection" of the C64/128 Bulletin Board List. This list had been released monthly years ago, but it has not been updated since October 2003. I've decided to take it upon myself to bring this list back to life. I'm keeping the same basic format as the old list, but I'm including all known dial-up AND Telnet boards (the old list was for dial-up only). Anyway... I hope some of you will find this useful... :-)

The ASCII text version of the list can be found here:
<http://hometown.aol.com/cottonwoodbbs/cbm-bbs-list.txt>

The PETSCII text version of the list can be found Here : <http://hometown.aol.com/cottonwoodbbs/cbm-bbs-list.seq>
 -Andrew

COMMODORE FREE Full Text version and email reprinted with Permission of Andrew

Commodore 64/128 Bulletin Board List - 25 March 2007

This is a list of all known ACTIVE Commodore Bulletin Board Systems operated on GENUINE or EMULATED Commodore 64 or 128 computers, sorted by dial-up/Telnet and BBS name. The list is published at least once per month with no set schedule. The latest copy is always available at: <http://hometown.aol.com/cottonwoodbbs/cbm-bbs-list.txt> (normally within minutes of arriving at the servers).

Certain items are abbreviated and those abbreviations can be found near the end of this document. Readers are encouraged to upload this list to any BBS or Web Site and to notify me at: wiskow@verizon.net, of any additions, changes, corrections or recommendations.

If you would like to receive a copy of this list each time it is published, send an email message to me at: wiskow@verizon.net with a subject line of "Please add my name to the Genuine C64/C128 BBS List Mail Notification List". If you wish to keep the list updated in any publication or online service, feel free to do so. Search strings are provided at the end of this document.

The PETSCII version of this list can be found at: <http://hometown.aol.com/cottonwoodbbs/cbm-bbs-list.seq>, and will be updated shortly after this list is posted (normally within minutes after this appears in the newsgroups).

Jeff Ledger maintains a clickable list of Telnet-accessible BBS's at <http://telbbs.petscii.com>.

NOTICE: To be included in the latest update, submissions need to be received by the 25th of the preceding month for the next months update. Any submissions not received by this cutoff date will be held for inclusion in the next update.

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DIAL-UP:

=====

Telephone Number +1-909-350-9987
 Location Fontana, California, U.S.A.
 BBS Name Master's Kingdom

BBS Software..... Color V8
 BBS Platform/Hardware C128-64, CHD 4GB, RL
 System Operator Name Charles Gutman
 (shifty_butch@hotmail.com)
 System Operator Handle ... Ramswell
 Maximum Modem Speed 28.8K BPS
 WWW Presence
<http://www.8bitprodserv.spaces.live.com>
 Open Status Verified 25 Mar 2007
 Comments Open 8PM-8AM (Pacific Time), 7 days a week
 Official BBS for 8-Bit Designs.

Telephone Number +1-503-325-2905
 Location Astoria, Oregon, U.S.A.
 BBS Name THE VILLAGE
 BBS Software..... Centipede
 BBS Platform/Hardware C128, CHD 4GB, SC128
 System Operator Name Sensei David O.E. Mohr
 (lordronin@vcsweb.com)
 System Operator Handle ... Lord Ronin (ID#1)
 Amiga Sysop Scott Farley (#16)
 (revelation_16@hotmail.com)
 Maximum Modem Speed 28.8K BPS
 Open Status Verified Temporarily Down - Will re-open soon!
 Comments Official BBS for the Amiga Commodore

public User's Group #0447. Open to the
 24 hours/7 days. Play-By-E-Mail
 Games are welcome and currently running.
 Over 2,000 files and over 90 Online Games. Official BBS for
 SceneWorld Disk Mag.

TELNET:

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Telnet Address 8bitjunkyard.dyndns.org:6400
 Location Annapolis, Maryland, U.S.A.
 BBS Name The 8-bit Junkyard
 BBS Software..... Color V8.1
 BBS Platform/Hardware C64-EMU
 System Operator Name Jason Putnam
 System Operator Handle ... Jp!
 WWW Presence
<http://mysite.verizon.net/putnaja1>
 Open Status Verified 25 Mar 2007

Telnet Address antidote.hopto.org
 Location Sweden
 BBS Name The Antidote
 BBS Software..... C*Base v3.3
 BBS Platform/Hardware C128
 System Operator Name Unknown
 System Operator Handle ... Taper/TRIAD
 WWW Presence None
 Open Status Verified 25 Mar 2007

Telnet Address cottonwood.servebbs.com
 Location Moreno Valley, California, U.S.A.
 BBS Name Cottonwood
 BBS Software..... AA128
 BBS Platform/Hardware C128
 System Operator Name Andrew Wiskow
 (wiskow@verizon.net)
 System Operator Handle ... Balzabaar
 WWW Presence
<http://hometown.aol.com/cottonwoodbbs>
 Open Status Verified Will open with new Telnet setup during the week of 9 Apr 2007.

Telnet Address
 bbs.excalibursstone.com:6400
 Location Unknown
 BBS Name Excalibur's Stone
 BBS Software..... DMBBS v5.3
 BBS Platform/Hardware C128
 System Operator Name Unknown
 System Operator Handle ... Excalibur
 WWW Presence None
 Open Status Verified 25 Mar 2007

Telnet Address the-hidden.hopto.org
 Location Unknown
 BBS Name The Hidden
 BBS Software..... Unknown
 BBS Platform/Hardware Unknown
 System Operator Name Unknown
 System Operator Handle ... Unknown
 WWW Presence None
 Open Status Verified 25 Mar 2007

Telnet Address innercirclebbs.com
 Location Unknown
 BBS Name Inner Circle
 BBS Software..... Centipede
 BBS Platform/Hardware C128, CHD 4GB, RL, SC128
 System Operator Name Unknown
 System Operator Handle ... Eddie
 WWW Presence None
 Open Status Verified 25 Mar 2007

Telnet Address bbs.jammingsignal.com
 Location Toronto, Ontario, Canada
 BBS Name Jamming Signal
 BBS Software..... EBBS 64 v3.3
 BBS Platform/Hardware C64
 System Operator Name Leif Bloomquist
 System Operator Handle ... Schema
 WWW Presence
 http://www.jammingsignal.com
 Open Status Verified 25 Mar 2007

Telnet Address
 lostcavernsbbs.dyndns.org:6001
 Location Macomb, Michigan, U.S.A.
 BBS Name Lost Caverns
 BBS Software..... Centipede
 BBS Platform/Hardware C128
 System Operator Name Unknown
 System Operator Handle ... Mo
 WWW Presence None
 Open Status Verified 25 Mar 2007
 Comments An additional port is available
 at lostcavernsbbs.dyndns.org:6002

Telnet Address madworld.bounceme.net
 Location West Philidelphia, Pennsylvania, U.S.A.
 BBS Name Mad World
 BBS Software..... Centipede
 BBS Platform/Hardware C128, CHD 2.1GB, RL
 System Operator Name Unknown
 System Operator Handle ... Cyberjank
 WWW Presence None
 Open Status Verified 25 Mar 2007

Telnet Address bbs.pipesup.ca:6400
 Location Unknown
 BBS Name Realms of Mystery
 BBS Software..... C*Base v3.x
 BBS Platform/Hardware C64
 System Operator Name Unknown
 System Operator Handle ... Mystery
 WWW Presence None
 Open Status Verified 25 Mar 2007

Telnet Address retrogradebbs.com
 Location Boardman, Ohio, U.S.A.
 BBS Name Retrograde
 BBS Software..... Color V8
 BBS Platform/Hardware C64-EMU
 System Operator Name Dave Hartman
 (mm@retrogradebbs.com)
 System Operator Handle ... Metal Mage
 WWW Presence
 http://www.retrogradebbs.com
 Open Status Verified 25 Mar 2007

Telnet Address rkbbs.net
 Location Unknown
 BBS Name Riktronics
 BBS Software..... Image v1.2
 BBS Platform/Hardware C64
 System Operator Name Unknown
 System Operator Handle ... J.Rotten
 WWW Presence None
 Open Status Verified 25 Mar 2007

Telnet Address bbs.petscii.com:6400
 Location Orrville, Ohio, U.S.A.
 BBS Name Temporal Vortex
 BBS Software..... TVBBS (Custom Software)
 BBS Platform/Hardware C64
 System Operator Name Jeff Ledger
 (jeffledger@gmail.com)
 System Operator Handle ... Jeff Ledger
 WWW Presence http://www.petscii.com/
 Open Status Verified 25 Mar 2007

Telnet Address dannyboy2.dyndns.org
 Location Unknown
 BBS Name Unknown
 BBS Software..... Color V8
 BBS Platform/Hardware C64-EMU
 System Operator Name Unknown
 System Operator Handle ... DSLMAN
 WWW Presence None
 Open Status Verified 25 Mar 2007

Telnet Address wizbbs.dyndns.org
 Location Unknown
 BBS Name Wizard's Realm
 BBS Software..... Color V8
 BBS Platform/Hardware C128-64, LtK
 System Operator Name Ray
 System Operator Handle ... WizardNJ
 WWW Presence None
 Open Status Verified 25 Mar 2007

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Abbreviations:
 AA128.....All American BBS 128 v12.1b
 BPS.....Bits Per Second
 C64.....Commodore 64, 64C or SX 64
 C64-EMU.....Emulated C64
 C128.....Commodore 128 or 128D
 C128-64.....Commodore 128 or 128D operated in 64
 Mode
 CBM.....Commodore Business Machines
 CHD.....CMD Hard Drive
 CMD.....Creative Micro Designs
 Color V8....Color 64 Version 8
 Color V8.1..Color 64 Version 8.1
 GB.....Gigabyte
 K.....Thousand or Kilobyte Depending on How
 Used
 LtK.....Lieutenant Kernal Hard Drive
 RL.....CMD RAMLink
 SC128.....SuperCPU 128

"Bits and Pieces II: Return of the Byte"

By Luke Lynde

Hello, here is Luke Lynde again. This time around I will give you a look back into the past, when computers became a part of my life, and the knowledge I have (or have not) gained along the way. The dates may be a little incorrect sometimes, for this was a fair while ago – but the information I provide is to the best of my poor memory :)

It was 1987 and I was in Year 8 in High School. My first computer was an Amstrad CPC 464 - before then I had owned nothing except for maybe a Nintendo Game and Watch, or some basic Space Invaders handheld. The first game I played on it was called 3D Grand Prix. I recently played this again on an Amstrad CPC Emulator named Caprice, I got a Shiver when I came across it again. Memories...

I don't remember having this long, because maybe 6 months later I had an Amstrad CPC 6128 which came with a disk drive, instead of cassette. Disks were very expensive for the Amstrad back then. I had a copy of Tasword for the Amstrad 6128, it looked much like Geos on the Commodore 128. Anyway, I am sure there was a lot of competition and similarities (not coincidences though) from rival 8-bit software producers. I have never owned a Commodore 128 though, or any other C= brand apart from C64 and Amiga 500.

It was some time in 1988 that I noticed a magazine in the newsagents called Zzap!64. I got a copy, and just by looking at the screenshots, it was clear that the Commodore 64 was a much superior computer. The 4mhz processing power of the Amstrad seemed somewhat wasted, in comparison. After looking at this magazine, I knew I had to get a Commodore 64, and I did. 1988 was the beginning of my long association with Commodore 64.

At the back of issues of Zzap!64 there were advertisements for people who swapped games. I contacted one person called Powerdual/DAAS who live less than 10km from me. DAAS stands for Doug Anthony All Stars, they were a Comedy Act on Australian TV at the time. I never met this person, but later he invited me to a train station on the premise of assaulting me, over some computer scandal (my lips are sealed). He was my first contact, and gave me the software needed to start swapping with more people.

Even back in 1988 there were a lot of people leaving the scene for the Amiga, or other reasons. MAD (Mad Aussie Dealers) had their HQ in Brisbane, where I live, although the leader Jaguar - promised the world and offered nothing on many occasions. Much like another scener I was talking to on my mobile phone last year... He knew how to code, but by 1989 or so he apparently had enough. He did try to charge me money for a contact demo, though :(Once while talking to him on the phone, he banged his head against the wall and knocked himself out. He called back later to tell me what had happened... ?!?

1988 was the year of just starting to understand the Commodore 64. 1989-1991 however, was a big time, especially for swapping amongst the scene. Groups I can remember trading with in Australia include: Ikon Visual, Chrome, Nova, TIS (maybe it

was TIC), QCF (Queensland Copy Federation). I was involved in some wars with groups as well, but I am not going to talk about that (once more, my lips are sealed). Forgiveness is divine?

I had made some good friendships also through swapping with so many different people. My contact list was usually around 30, so I was no mega swapper. Every day, packs were arriving in the mail on real floppy 5.25" disks. Not the 3.5" of today, that aren't really "floppy" at all :) Keeping my contacts always around 30, meant constantly dropping some. It was always my perception, that the Australian scene was considered a bit lame, by the Europeans - and some times, with good reason.

It was in 1991 that I bought an Amiga 500, selling my Commodore 64 and around 1000 disks for a small fortune. However, I did not like the Amiga scene at all - and was drawn back to the Commodore 64 in 1992, the year after I finished High School and started working. I knew the C64 was the computer for me... From 1992 until 1998 I was probably active only half of the time, but always had a Commodore 64 around to hack around with, and play games on.

From 1999-2002/3 I had no Commodore 64 gear, and at that time - I did not imagine myself getting interested in the C64 again. Through emulation and the PC I rediscovered the C64 scene again - and joined People of Liberty around 2004. All my articles released for People of Liberty are under my handle of IQ-Dna, in the Scene World disk magazine. It wasn't until early 2005 that I started on real C64 hardware again, purchased through the Ebay Internet Auction Site.

All my articles for Scene World were done, when I was just using Emulation. When I finally decided to go real c64 again, the magazine just died. A bit of a kick in the teeth, but these things happen I guess. Anyway, since then I have been enjoying being a C64 user in real time :) Nothing beats it! Sure, Emulation offers a better image display and other nuances, but the real experience can only be found by using the real thing...

Anyway it has been about 3 or so years back into the Commodore 64 again, and no regrets. I now have 6 keyboards, 2 1541-II disk drives, numerous books, power supplies, and lots of leads and other stuff. I also collect consoles like Atari, Nintendo 64, Sega, Playstation 1, etc. I have quite a lot of stuff! Recently I picked up two Pentium One computers and an Apple Power PC - for free! One of the Pentium 1's I turned into a DOS Platform for Star Commander and CCS64, other 8-bit emulators, and PC Dos Games. I have lots of computer hardware filling up a large cupboard!

Anyway, that is my story. A lot of people like to hide behind a handle and group name, sure if that's the way some sections of the C64 civilisation operate. I like to communicate sometimes on a more human level. After all, I find it more interesting to hear about stories like the one I have told you today, then to go deep into some meaningless arguments about who ripped which piece of code from where, etc. Not that there is anything wrong with that :)

Catch you later!

Activision on the C64

By Luke Lynde

Luke Lynde on the keys... Your Commodore 64 is also a super Atari 2600 console built in?! Well, not exactly - but you would be surprised. Read on and find out...

It was sort of in an obscure way that I came to discover how addictive and playable Activision games are on the Commodore 64, in particular the titles from the early 80's. I regularly use an Atari 2600 Emulator called "Z26", so I guess this led me on a search for some of the Commodore 64 versions of the popular Atari 2600 games. As far as Atari 2600 is concerned, Activision was the major software house by a mile, for the now primitive console.

The conversions to the Commodore 64, to my surprise, I found are even better. With exception however, there are probably a few stinkers I am not aware of. In a way, I suppose that the Commodore 64 conversions -are what the coders wanted them to be like on the Atari 2600, at least I am sure.

From games I have played from Activision, and what I have read - they are a software house that from very early on, put upmost dedication in the structure and implementation of computer games. Simple code was what existed back then, for it happened in a less technical time. Commodore 64 is lucky, because the best versions of the early Activision titles are only to be found on this machine. The C64! The [4] Games I will talk about today - River Raid, Hero, Beam Rider, and Pitfall - are instant classics that retain a unique design and gameplay that remains unsurpassed to this day.

These games have themes in common. The graphics and sound are all in simple detail, but are effective and well suited to the relevant game. As the level/stage increases - the difficulty increases by gradual (not too steep) degrees. You really want to get to the next level, so the addictiveness takes hold of you. They are all extremely playable, and are most of all, fun.

[1] River Raid

Pilot your plane through the canyons, over the water, destroying anything in your path. This is a basic vertically scrolling shooting game, where you must navigate your plane through enemy territory - which consists of planes, helicopters, ships, tanks, and balloons. Fuel cells can be flown over to replenish your fuel supplies. Careful navigation is required so you don't hit the sides of the canyon.

From the Option Select screen, there are 8 game variations - where you travel from bridge to bridge. You can increase and decrease the speed of your plane, but you can not stop the scrolling - so it takes some art to become good at this game. Be careful to avoid anything that gets in your way, by either shooting at it or navigating your way around it. The graphics and sound effects are basic and simple, but the conceptual adaptation and playability rank in the high echelons of gaming nirvana.

[2] H.E.R.O.

You are a man with a helicopter attached to himself, and a laser at your disposal. This game consists of screen after screen of caverns, which you

must guide your man through - with the objective of each level: to rescue the trapped miner. Well something like that, I don't have any manuals for these games reviewed today. The graphics are quite nice, and the sounds are also suitable for this type of game. The higher the level you reach, the more screens a cavern will consist of. You have bombs at your disposal to blow up walls, and the enemies consist of spiders, butterflies (?!), some green hands coming out of the walls (?!), and instant death touch walls. This game appears very simple and straightforward, but you always are under the urge to get further and further in the game - where it obviously gets a little more complex. At the end of each level when you rescue a miner, a bonus is provided for bombs that you did not use. You will need a steady hand for this game.

[3] Beam Rider

Beam Rider is a retro fashioned shoot em up, very reminiscent of the early 1980's. The playing area consists of a vertical grid, with your ship at the bottom - and your enemies moving down on the grid towards your ship, in an effort to annihilate your very existence completely. An alien UFO type inspired game. Each sector (level) comprises of 15 aliens to destroy and it is a game of dodge and kill for immediate success.

Your ship at the bottom of the screen has 4 positions on the grid to move between, and as the levels progress you will have other nuisances to avoid or kill to make things just that little bit harder. The playing area is a blue grid on a black background. At the end of each sector, a mothership appears across the top of the screen. Killing this with one of your three mega shots, gains you an extra life. This game is a combination of accuracy, intuition, and avoidance. Play it and you will see what I mean. A great game, that would look good if it was reworked today to a more modern format.

[4] Pitfall

Pitfall would have to be one of the single most popular computer games of all time. I mean, it is so well known, and secondly - so tied up with the Atari craze, beyond rational comprehension. This was "the" Atari game, when released. You are presented with screen upon screen of a forest scene, which involves small changes to each screen - using the same data - making this game look a lot bigger than it actually is.

You have to swing on ropes, jump logs and scorpions, step on crocodile heads (crikey!), collect money, and traverse lakes of water that appear and disappear. The point of this game is beyond me, I did have the instructions a long time ago. However, it is a good game, a seminal classic even. As far as this game goes, and all the others I have reviewed here - also play the Atari 2600 versions if you can, for they also retain a similar addictive gameplay.

Well there you have it. Activision is ruling on C64. There is more to a game than excellent graphics and sound. A prime example would be Tetris. This is gameplay here at its purest form. Take a trip down Memory lane, and play them again sometime. See you!

The Commodore 64 Book

- new website online -

The new-look website for The Commodore 64 Book is now online. New features include author diaries, a list of the games being reviewed and an FAQ. Pre-ordering will make sure the book is printed, so order now!

The Story So Far...

April 2nd 2007

Deep into the research, revising the history segments for the start of each chapter. Apparently Commodore tried more than once to stop producing the C64... The total is over 85,000 words now, including review quotes and scores from Commodore User.

March 27th 2007

More publicity for the book! A very short segment on the latest Retrogaming Radio show from Shane R Monroe, about 2:54 into the 3+ hours. Shane was rather cheeky and asked for a review copy, so I'll have to sort something out in the future. More rewrites/research being done - I'm rapidly approaching 83,000 words. The tricky part is finding all the names of people involved in a game. Gamebase has coding and music credits for most games, but it is a laborious task to load up every game and check title/loading screens...

March 26th 2007

With family around for the weekend, I have less time to work on the book than I would have liked. But I did take the opportunity to quiz my older brother Chris about games he felt should be on the list. More rewrites and more covers found, so Sunday was not completely wasted.

March 19th 2007

Time to tidy up the text files and add in the new entries from yesterday. I also want to send off a couple of chapters to Andrew so he can get cracking on building the layouts. Fortunately I've managed to find some people to help me with the search for covers, so I may be able to put off the struggle to get to the rest of my games.

March 18th 2007

Scanned the board that accompanies the game Tank Attack, and the final file (created by joining four separate scans together) is 17Mb! The other thing is that raiding the cupboard meant I found a few games that should definitely be in the book... so those entries will be added in soon. Trying to keep this diary and my MySpace blog up to date as much as I can from now on.

March 17th 2007

Got down to the business of scanning the boxes, and also found a couple of rare games to scan for various websites. The only problem was, I didn't find all the boxes I was expecting to, which means some of them are stuck in the built-in cupboard at the back of my room - which is behind a huge pile of Commodore equipment. Got the new issue of gamesTM today, and there was the short interview I did with Retro editor Ashley Day by e-mail. Hopefully that will bring in some more pre-orders.

March 16th 2007

Spent the afternoon searching through cupboards for game boxes to scan. One idea I've had to spruce up the layouts is using more sprites and game objects on the pages; we'll have to see if this is possible (and easy to do). Over 80 pre-orders now.

February 21st 2007

After a couple of late nights, I finally took the plunge and worked out what to chop and change. Now I have 229 games in the list. I think I'm right in saying that at this point every game has at least a start of a review on its page, and there are now 64,000 words in total. That's a drop from this morning's high point of nearly 70,000, but things are in much better shape now. And I'm off to play Uridium for the Retroleague...

February 16th 2007

It's been a good week. I've been hammering out more words, doing a few edits to earlier reviews and generally pressing on at full speed. I calculated that my typing speed had reached over 30 words a minute during a couple of long sessions at the keyboard! Of course a lot of this is rough work, and more detail needs to be added and checked - review scores, anecdotes, trivia and facts. The only problem is... I have too many games. At last count I'd got a list of 254 games spread over the 25 years. By the time you get things like the chapter headings and the introduction, I need to reduce that by at least 20. Wish me luck.

February 5th 2007

The pre-order page went live today. So it was time to start publicising the book a little more widely. There are a couple of mock-ups available as PDF's, but hopefully a larger selection will be online during the forthcoming week. Fortunately I managed to grab a bit of time to work up a few more reviews (this time from 1987) and collect together the screenshots and covers for 1982. Oh, and to reply to Andrew Rollings' "humorous" thread on World of Spectrum... Pre-order total so far: 20!

February 3rd 2007

Thought I would have a count-up and see how much has been written so far. With the 1985 chapter virtually complete and good starts on some of the others, I now have a total of 26,000 words.

January 2007

With the first copies of the Spectrum book reaching eager readers, the C64 version is revived. The most laborious task so far was organising all the game files for taking screenshots. During the month the holding page goes online, and I put the link into my signature on various gaming forums.

April 2006:

Holidays, other events and a lack of time mean little progress on the book.

March 2006:

Many hours of reading websites, checking lists and going through the Gamebase collection lead to an early list of games to feature in the book. It's not meant to be a definitive list of the best games, more a collection of significant titles, games I was particularly fond of, and some of the most famous. Splitting the list into years gives the structure of the book, and the first few reviews are drafted as a template.

December 2005:

After reading about the forthcoming Spectrum book, I contacted Andrew Rollings with the idea of doing a Commodore equivalent. Preliminary discussions are mainly about using a similar layout and design process, and starting on a list of games.

<http://c64goldenyears.com/>

Interview with Johan (Shocktrooper)

The SixtyFour Originals DataBase

Q - Hello would you like to tell our reader about yourself

The name's Johan, I'm from the Netherlands. Better known amongst c64 enthusiasts as Shocktrooper. I'm currently the administrator of the Lemon64 forum and run a private non-commercial website www.sfodb.com. I'm married and have one kid.

Q - You say on the website you started collecting games for the c64 in 2001 would you like to comment about this

In the mid-nineties, when I quit on my c64, I had about a dozen original games. When I moved out of my parents' house, they all got canned. In 1998, when I started working for serious money, I got retro-enthusiastic pretty fast, and wanted to get my old stuff back again. That's where it started.

Q - I see you are quite a perfectionist in the persuite for the complete game/cover/instructions

Like I mention on the website, I have one big question; is the game I have complete or not? The resource now is that at least I publish what I have. However, this isn't what I set sfodb up for. I'll comment more on that in the next question.

Q - So your website <http://www.sfodb.com/> what is the main goal you hope to achieve

I hope it will become a collector's resource. I'm working on a client that will allow people to keep track of their collections online and offline, and this should result in more accurate data. For example if four people mention that Archon comes with a registration card, and two people don't have that, it's fairly safe to assume two people miss their registration card.

Q - Has anyone complained that the items of art are copyright and asked for there removal

Not yet. I hope to keep it that way :-)

Q - Some of the title have scans of the cover complete with measurements! and scans of the instructions even scans of the original tapes do you think you are overdoing it

No. Sometimes I think the level of detail isn't high enough yet, but if I push it any further I know it'll start working against the total amount of data entered. The thing is, people sell what they have. There are at Least 6 or 7 versions of Winter Games available. If someone has a boxed Winter Games with no instructions, and a loose instruction sheet, how easy is it to just throw the two together and sell it as a complete game? At the same time I realize very well that for most people this amount of detail seems Overdone. I've heard that before :-)

Q - What resolution are the items scanned in

300 dpi, 90% jpg quality. On the site I can only offer 800 pixel versions as space and bandwidth are not free unfortunately :-)

Q - Could our reader help by sending in scans if so what is the criteria

Once I get the whole updated package together they will be able to. For Now the site is a display of my personal collection.

Q - How much time do you think has been spent on the site

On the site; not much. It took me some 10 hours to program all the code, and an update takes about an hour. The offline client has a lot more work in it; probably some 100 hours total now.

Q - You must have a real life :-) what do you do for a living

I'm a win32 programmer/web developer/system analyst. Professionally I do Visual Foxpro, ASP & MS SQL development.

Q - all these games are for the Commodore 64 do you think you may start a site for other commodore machines

I personally won't. There are too many c64 games to collect and many of them are too expensive as it is.

Q - What Commodore machines do you own and use and more importantly Why

I have a setup of a classic breadbin with a 1541-II, and a c128d that I don't use anymore. I own about 5 c64's with an equal amount of disk drives. Some are broken, the ones that aren't I'm known to give away to people who are after something. I still use my c64 to watch demo's mainly. I never really play games on it unless I have an afternoon to waste :-)

I've also gone into programming on the c64, and released one small thing so far which can be found on csdb. Very occasionally I'm working on an rpg, but that won't be much before I retire I think.

Q -These sites usually generate questions like "why bother with the project" would you like to comment

You have to do something with your spare time :-)

Q - Personally I feel we should preserve as much Commodore history as possible I have a young son and would love him to gain the same enjoyment I had from Commodore machines

Same here. My son has a few favourites already. Thomas the Tank Engine, Endless and a few others.

Q - Why is Commodore so special?

It's the one thing I keep coming back to, no matter how often I try to do something else, so it has to have some magic in it :-)

Q - If I gave you 1 million pounds what would you do

Get a bigger house with climate control for my games, host all my scans in 300 dpi and donate lots of cash to various c64 projects to keep everything on the road. Hobbies cost lots of money I've already learned, and everyone can use a little extra sometimes.

> Q - is there any question you wished I had asked you and why

You didn't ask me why I collect dupes of the same game as well, as it Would certainly add to the "mad" image people already have of me :-) And you also didn't ask me if I enjoyed the interview, but it could be because you're afraid of the answer hahaha.. :-)

Johan <http://www.sfodb.com/>

Interview with Cadaver (Lasse Öörni)

Programmer, Graphics Artist, Musician Of covert bitops <http://covertbitops.c64.org/>



Q. Please introduce yourself to our readers?

I'm a 28 year old guy from northern Finland, with an interest in computers and metal music. As for "serious" stuff, right now I'm wrapping up my computer science studies in the university.

Q. who are covert bitops?

It's a two-man (well, Yehar hasn't been very active for some time, but anyway) C64 group dedicated to making C64 games, music and tools. The tools are mainly of the crossdevelopment sort, running on PC, but there are also a couple of C64 musiceditors. In addition, the covertbitops site has a sort of educational mission with intermediate/advanced level "rants" on C64 game programming. Anyone is welcome to write guest C64 programming rants, btw.

Q. Where did the inspiration for the Metal Warrior series come from?



It originates from an Amiga game (also called Metal Warrior) which I wrote as I was quite young, 15 years old. I had just started playing guitar, mainly metal music, and inspired by C64/Amiga sideview

action-adventure games, cyberpunk movies and such, wanted to create my own cyberpunk adventure with a metal guitarist as a protagonist.

The C64 Metal Warrior, not originally planned as a series, was then an opportunity to revisit this stuff with a slightly more "grown up" mindset. Some characters and places remain but most stuff was new.

Q. Did you write all the story/plot yourself?

Yes, except that for MW4, I came up with the idea of the "Agents of Metal" -organization together with a French musician Lionel Gendre (also known as Malekith or Agent M), who also did music for the game.

Q. Did you like the "Trilogy" special edition put together by Simon Quernhorst?

It was a nice opportunity for people to get actual packaging and media. Of course I personally don't hold the first three games in as good regard as when they were made, considering what I've learned since of programming and game design.

Q. Do you have any plans to continue the series, or put together a new game?

With that in mind that MW4 is the final game, I implemented a lot of freedom in how the story can turn out. So I can't know who of the characters lived and who died when you played the game, and therefore continuing it would be hard.

But yes, I have plans to make at least one C64 game. I've talked about it on the Lemon64 forum at least, the codename is "Hessian" and I guess if it comes out some day, it won't be that far from the MW games, as the sideview scrolling action-adventure is still my favourite genre to write in.

Q. BOFH - Servers Under Siege was a nice game too, what inspired it?

The idea of a computer admin as protagonist came when I was performing my civilian service (instead of serving in the military) as a network admin/helpdesk guy. The building in which I worked was modelled as the play area, and then from movies like Die Hard came the idea of terrorists and bombs and lots of shooting happening there. This game btw. was originally written on the PC, so it was also about the challenge of downconverting the game to a much more limited platform.

Q. Can you tell our reader about some of the other games on the covert bitops website?

Advanced Action Movie Simulator is a crap game written for the 2001 Crap Game Compo. It is supposed to make fun of the multi-level movie licenses popularized by Ocean.

Escape From New York is a crap game written for the 1999 Crap Game Compo respectively. It's my tribute to both the movie and to the buggy/sluggish gameplay of some C64 games, like Cobra.

Then there are also a refinished & modified version of the original Amiga Metal Warrior and a Game Boy Advance version of MW4, which runs most of the original C64 game code under a very coarse "emulation".

Q. All the games and utilities on the site are free to download, was this always the case?

Yes.



Q. Why don't you charge for the games and utilities?

The games would get pirated anyway, and then I'd just feel bad, so to me it makes more sense to maximize the potential playerbase by offering them free as default. As for the tools, there are comparable (or better) free utilities available, and trying to charge for them would simply reduce userbase and make me look ridiculous.

I also kind of want to make the point that if you're going to charge for your C64 games, please try to make them the highest quality you can, comparable with commercial past titles. Of course making games as a hobby or part-time job isn't quite the same as getting paid to work on them full-time, but on the other hand people back then never had as good tools as we have now. Plus many commercial games were made in a rush of a few weeks or months, we have the luxury of spending as much time as we want (and can).

Q. Covert BitOps Loadersystem can you explain this system, to our reader?

It's a quite flexible disk fastloader system for people to embed & use in their own assembly language programs, games for example. In the demoscene, there are also faster, more specialized solutions available (like Krill's loaders, or DreamLoad) but they usually also take more memory.

Q. What do you like to do most - code, write games or make music?

Isn't coding and making games the same? :) I guess I like coding most, trying to optimize some routine even faster for example. I always like to start C64 game projects from the technical things - like the scroll routine, sprite multiplexing, but of course once the technical side works well enough then it has to take back seat compared to actual gameplay, story etc. design decisions.

But in the final stages of the project the technical side may return to haunt you once again, for example you're running out of disk space or memory, or the things you've added have made the game too slow. Then it's back to technical optimizing...

Q. What are your favourite C64 games?

Green Beret and Gunship have received the most playtime, and I guess they are my all-time favourites. Though one keeps finding good C64 games regularly, there are so many of them.

Q. What started you programming?

The C64's manuals as well as articles & type-in programs in Finnish computer magazines.

Q. Given unlimited time, what would you develop for the C64?

Even unlimited time wouldn't help fundamental limitations like processor speed or memory. But I guess I'd make an action/adventure game with very many disksides of data, if I wouldn't get bored first.

Q. What in your opinion is the best application/Demo or game for the Commodore 64

If the idea is to pick just one, it's kind of hard to answer, so I'll leave this one out.

Q. Do you prefer to use emulators or the real machine?

Emulators are good for fast testing and yes, I use them most of the time, so I guess I prefer them. Real machines get used for final testing of own programs, or specialized gaming-marathons. Of course you can't beat the real thing, but the convenience of emulators is amazing.

Q. Have programmers now come to a full stop so to speak with regards to new ways of pushing the machine to its limits?

Don't know, ask the democoders. :) But in terms of game development, one tends to notice that there are interesting solutions from the whole C64 era, some early games actually do some quite clever things. Nowadays you can better take inspiration from several other platforms too, though.

Q. Can you explain to our reader about Cross development and its advantages and disadvantages, related to designing applications for the Commodore system

Mostly, it makes developing faster and less painful. You get much faster compile times, you can use mouse instead of your last almost-broken joystick to pixel graphics, you can automatize the build process (for example using a makefile) and if you need some little utilities to transform your data, making them in some modern high level language can be easier and faster than using C64 assembly or Basic, and if they are commandline utilities, you can easily integrate them with the rest of the build process.

What you've got to watch out for is making music/sound – SID emulation is not quite there, so test on a real machine or a HardSID card, and coding fastloaders - always test on real disk drives.

Also some people maintain that using a C64 assembler or monitor is more convenient for testing small changes, see for yourself.

Q. Do you have any advice for would be Commodore programmers, should for example they learn basic then move onto Machine code or just jump in and learn machine code straight off

C64 Basic as a language is quite worthless in my opinion, but in the beginning it can be convenient to

explore the graphics & sound capabilities using it first.

Of course, in the end all the good stuff happens in C64 assembly language, but it can still be quite intimidating at first, so I'd also recommend experience in modern high level languages like C++ or Java for getting used to algorithms etc. And the final thing: expect a lot of work and sweat in any case!

Q. Do you think anyone could program or does it take a certain type of lets say elite brain?

I wouldn't like to use the word "elite" but I guess it may take a certain kind of problem solving ability or a way of thinking that is hard to teach beyond the basics.

Q. I started to look at Goattracker that supports output to the HardSID soundcard or CatWeasel MK3. can you explain to our user why this music system is preferable to there current tracker?

It's quite possible that a musician has already found a better editor, at least from a personal preference viewpoint, but I guess it's worth trying out if one wants relative ease of use and tracker-style editing, relatively low player rastertime usage (between 16-20 lines maximum, usually) and relatively low player memory footprint.

Q. Can you provide some information on covert bitops None Commodore projects?

Anything non-Commodore related on the site isn't really Covert Bitops stuff, but included for the convenience of not having to create another homepage, or because it's required for the Commodore-related stuff, like the Blasphemous Multimedia Engine (BME) library, which is a set of oldschool routines that aids the graphical crossdevelopment tools like the sprite/background editors.

Q. Do you think there is still the same following for the Commodore 64 today as there was say 5 years ago?

Can't comment on the general "following", but at least the activity of producing demos, games & disk magazines is certainly diminishing. Of course it's up to everyone to decide in which ways and how much they want to be active. And there are always positive surprises, like the games produced as a result of the Game Over(view) Freestyle Jam.

Q. There is a hatred of Commodore Scener's (programmers and developers) to what is termed "lamers" or "lame users" can you explain the term

"lamer" and why the general hatred to these users

I don't know if it's healthy to discuss these things, and in the past it no doubt meant different things, but nowadays and as my personal opinion I'd say "lameness" mostly manifests as the laziness to do your own research. It's then in some way understandable why persons who have been active a long time on the C64 and having done their own Research, find this laziness irritating and may (myself included) lash out in some pretty uncivilized ways.

Q. Do you ever think that "lamers" would be welcome to say Coding parties, maybe even just as voters?

I actually seldom visit parties, but I guess it's much easier (or maybe because your social survival-instinct compels you) to be welcoming in the physical world as opposed to the cyberspace.

Q. If you were given 1 million pounds what would you do with the money?

I don't think that's really interesting to the readers, but I guess having a very nicely equipped home recording studio wouldn't hurt.

Q. How were you introduced to Commodore?

I remember playing Pitfall 2 in 1985 at a friend before my family got our own machine about a half year later.

Q. What question would you like to have been asked?

I think everything was mostly well covered, so none.

Q. Have you read Commodore Free and if so how did you rate the magazine?

Yes, I can admit to skimming some of the issues. I'd say some more proofreading wouldn't hurt, as well as more confidence in the editorials. Otherwise it seems a fairly nice magazine.

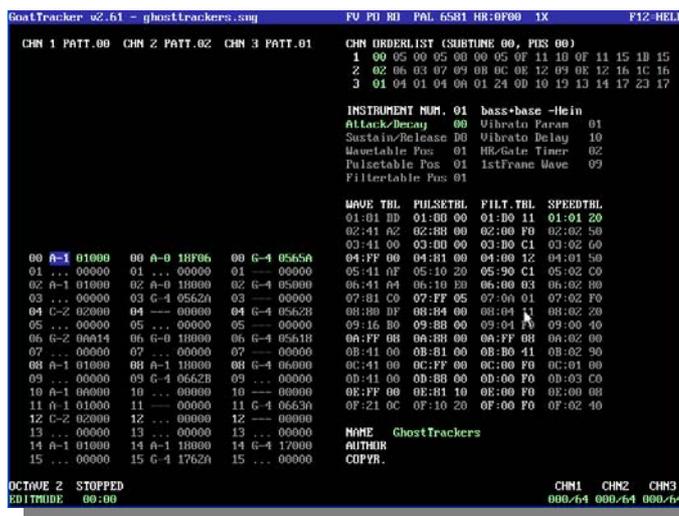
Q. Do you think there is a market for an updated Commodore 64/128 system?

Not really. I think the greatest strength is the standard to which we've used to. I know people program for example demos using the DTV's enhanced features, but with the C64 user base being limited as it is, I don't think any further division would create significant activity.

Lasse Öörni Thank you for your time, i appreciate your comments

Thanks for the interview; it was a pleasure to answer.

<http://covertbitops.c64.org/>



Commodore 64 Mark 2 and a bit

A dream and my vision of a Commodore future

By Commodore Free

I had a dream, nothing unusual about dreaming we all do that; but this was a Commodore related dream; and in this dream I thought about Commodore making a come back. Somehow in the dream I was assigned the title of "product development manager of Commodore" after all it's my dream so I could be assigned whatever I wanted couldn't I..

In the dream Commodore had assigned me the task of bringing back the "commodore 64" not in its old version but in some new and redesigned format, something that would sell to the masses in 2007 and beyond. I was given a large budget and then asked "NOT to spend it all because some will be for marketing the machine";

of course in a dream anything is possible so my first thought was to contact Jeri Ellsworth and find out how Commodore could license or utilise the DTV components and all the hard work Jeri had been doing for the C-one and the DTV, I also wanted Jeri to work on Commodore, as a full time employee.

Jeri and myself met and talked, I managed to convince Jeri that Commodore were back and back this time to stay; next Solicitors were called to check over paperwork and eventually documents were signed, then resigned amended copied, faxed lost signed resigned; ok you get the idea.

I Convinced Commodore and Jeri to use FPGA logic in the new Commodore 64; and so the design finally started to take shape, at least in the virtual world. That shape was a laptop design, we have already seen the amazing picco 64, and I suggested to Commodore that we should contact the designer Jason and offered him a job with myself and Jeri here at Commodore.

We worked through the night looking at various off the shelf components of good quality; searching websites for hardware we could utilise with minimal changes and more important, something we could utilise at little cost into the new Commodore laptop. After all why should we start reinventing the wheel when someone already had a good wheel design they were selling.

We all decided that a quick way to extend the design was to purchase CMD from Maurice Randel of www.cmdrkey.com Maurice bought the rights to the CMD product range and is producing the hardware in his spare time. We approached Maurice and asked for a price for everything CMD related including software and hardware Maurice recited a figure and we all fell over in shock, after some talks and showing that we really did have cash Maurice agreed a more reasonable amount. We paid up Maurice and looked at our inventory of stock. Of course the Commodore directors were a little unhappy as money

was quickly dwindling and we had nothing but a pile of chips and some paper to show for our efforts; oh and the four or five Commodore 64 purchased from e-bay we had been testing various applications on, well ok we were playing games but isn't that a form of testing?

Commodore business suits entered demanding that we give them a progress report; and were expecting a full redesigned machine in less than 3 weeks time we decided to produce a mobile of some pigs flying to take to the presentation and hang above the door.

In true Commodore style we collectively made up a prototype from wood, and managed to bluff through a presentation. The Commodore suits of course being business men and not hardware or even computer buffs were impressed with the bluffing; and of course were happy there money was being spent wisely, good job this is all a dream I was worried I may be sacked on the spot, or even worse I may wake up.

We concentrated our efforts mainly on trying to make money, because we had spent nearly everything Commodore had supplied and really had nothing but a presentation to show for our efforts. We were now in the process of saving and said that CMD products could be produced "as is" to start recouping our spending, also to promote Commodore back to the masses and ease some of the tension about CMD products.

I contacted Jens Schofield about manufacturing CMD products and we sat and talked about the CMD design; we mentioned new ways to manufacture the products and toyed around with various mock designs on paper. Times have changed since CMD manufactured items; Jens looked over the designs and thought for a moment. I suggested something rather radical "we use less components and more Programmable logic" I said, Jens looked at me and said "go on"; right that way I said if bugs were found we could offer Free upgrades and fixes, maybe even user groups could find fixes for us and offer downloads.

The positive point here is that using fewer components is cheaper to manufacture; produces less errors; and also reduces the size of the devices, and because we already had the software we had nothing more to do that recode for the programmable chips, the machines could be ready in days I said. Basically everyone wins, Commodore us and the customers, with better designs more stable designs and above all else cheaper designs;

I suggested we need to get the products out as soon as possible. I thought about all the users still needing these devices and the small market that was dwindling away because people couldn't obtain this hardware, or had become disillusioned with Commodore and Cmd as companies. The faster we act and the more market we can generate. If these devices become more common programmers will

enhance there software to utilise this hardware we thought.

Weeks passed, so much for the couple of days; testing seemed to take forever and with all 4 of us working 24 hour days mistakes were becoming common; we needed more staff but had no money to recruit them. Commodore were also beginning to put more pressure on us to reveal projects, we fended them off with more "smoke and mirrors" and eventually, days later than planned; we had created the following items renamed for mass production to the Commodore market.

Commodore Hardware products

Hard disk drive
3.5 Floppy disk drive
Ram link device upgraded with MMC card reader
Super Cpu 128

The products moved to marketing for promotion, and the usual design aesthetics and small changes that marketing department had us do was really minimal, for once the whole company could see the goal and needed the products in the shops as soon as possible. The small changes were mainly, due to the reduced part list and more streamline design, new logos and manuals needed to be produced.

Also with the number of items mass produced we were able to reduce the cost by two thirds and quickly set the products for sale on the Commodore website. Commodore users who purchased the designs said they worked with 100% compatibility of the old CMD products; and this in turn generated more interest and more sales, how many Commodore users are there in the world, it seems everyone wants one of these devices

I kept an eye on the products and was open to suggestions from fellow users, tweaks and suggestions were put onto a "wish list" along with more ideas. We also produced "circuit only" versions for building these devices into Commodore custom tower cases; this was one of the many suggestions but also something we planned on doing from the start.

We used the Commodore Gaming case as our test system and devised a special power supplies so real "commodore machines" could be transferred into these custom cases, the marketing team created more literature and the items were placed on the website, Commodore was reuniting the old hardware with new ways and new hardware, again Commodore were innovating products.

I suggested we contact all paper magazines and clubs to announce the new products, and suggested a loyalty scheme were users coming back to commodore could gain 5% discount on products if purchased from the website.

Our marketing team contacted online Commodore hardware suppliers and discounts on quantity were offered to keep these loyal Commodore supporters "sweet" and on our sides. The feedback seemed positive from all suppliers, we made special points of offering to "buy up designs" or work with other hardware producers to mass produce devices, this way small entrepreneurial developers could have there hardware mass produced and not need to worry to much about implementing designs .

Other products I thought we needed were adaptors to use other joysticks like the play-sation stick, also products using memory cards for storage, as we had started with the new ramlink design. I also wanted the IDE 64 system; every stone was left unturned every hardware developer contacted we worked looking to try and incorporated the products were applicable into the old CMD product line and bring after years to a more up to date design.

Sales and press coverage was good for a system that is supposedly dead, as ever the Commodore brand never dies true it may sleep for a while but never dies.

I was asked by various press representatives of our progress and "what now" questions, I said we were working with Jens on something like the C=one design, a brand new machine, for Commodore gamers, we said the machine would be a "games console" mainly but also have the ability to act as a computer with its own operating system and versions of BASIC; ready to utilise with nothing more to purchase, the system would look something like and Amiga 1200 with an internal Cd rom Hard disk and memory card readers; the design would also have Usb and Firewire connectors as standard; we hoped to price the machine at £300.

We had created such a buz and at our next meeting realised we still didn't have a machine to sell to users, suggestions for this new machine were

C64 and Commodore 128 compatibility at the hardware level to ensure 100% software and hardware would run on the machines, this was thought to be possible via FPGA chips so we now had to work on the new machine design

We devised 2 main designs; the Amiga 1200 style as described above and also
A commodore laptop

15" lcd monitor
Custom Commodore keyboard
Floppy disk drive
Cd rom
Usb
Firewire
External Monitor points

I awoke to the alarm clock, jumped out of bed and looked for my Commodore official workware I then realised I was still in my bed and this was all a dream,

I thought to myself "would I buy some or all of these products", and thought about if the Commodore brand could really comeback, many people find the IBM compatible machine is to complex for everyday work so why shouldn't the machine comeback stranger things have happened.

After reviewing the Dream I got my thoughts together, dressed and had breakfast, then set out to my standard job

Wonder if I will have the same dream again in the future

The TND User Tool Disk

Compiled by Richard Bayliss

I thought I write a little something about the TND User Tool disk. Basically this is a compilation of many public domain tools that I seem to have made use with in the past. I still even use those today as well. All programs on the disk were done by various members of various demo scene groups.

The whole idea of creating this tools disk is to share it with everybody and also give you some general information on how those programs can be used. As well as the user tool disk, I have also included another disk with various stuff to support the tools, such as the Turbo Assembler and the DMC music editor.



The tools on this disk are all public domain, just like the compilation and you are very welcome to copy the disk to all of your friends and contacts. Anyway here is what we have on the disk, and some background information about the programs.

Turbo Assembler V7.0+ (Angels version)

This wasn't really the version of the Turbo Assembler that I used to use. I used to use version V5.3 which was a version given away to the public domain by Case/The Ancient Temple. However this is a programming tool for writing your own assembly code. There is already an assembly programming feature in Commodore Free as someone else has took the role, but I have included a .D64 with various sources I made to create various programs, like the Goldfish demo, 2 scroll intro demo and the Missile Blaster game. Also to accompany the assembler, we have the Turbo Assembler commands. So you will know how to assemble, load a file etc. Hope it helps :o)

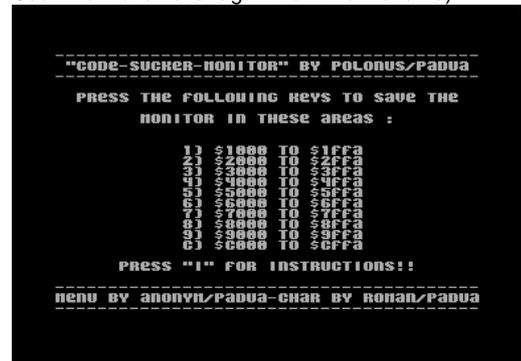


Code Suck Monitor (Padua)

Another handy old tool here. This program is also a programming tool and is also good for ripping code (Which I don't recommend) as well. The Code Suck Monitor is probably based on the Action Replay Machine code monitor. Most demo/game programmers on the C64 probably used a machine code monitor as well as an assembler. So if you don't own an Action Replay cartridge, here is a handy hint for you, to use this tool.

Because you may wish to use Turbo Assembler as well as this M/C monitor, do not chose \$8000 - \$C000 as the address for the monitor or anywhere where code & data overlaps the M/C monitor, itself. However, if you would prefer to try programming with a M/C monitor instead (Which is slightly more difficult) then that is entirely up to you.

The Code Suck Monitor also have some instructions to help you get started. Simply chose the note. If you do chose the note then you'll have to load the Code Suck Monitor all over again from the menu. :o)



DMC V4.0 (Graffity)

For short, DMC stands for Demo Music Creator. This is a tool which I like to use a lot and it is very easy to handle, compared to DMC V5.0. To be able to get the hang of the DMC V4.0, I have included some example tunes in the source files disk, so you can get started. However there seem to be some instructions missing in this music editor (Unlike DMC V2.0, which had instructions in with the editor). Here are the commands:

General:

INST/DEL: Insert/Delete positions

Left arrow: Main menu

Up arrow: Read data from cursor position

@: Write data from cursor position

F1: Play music from the start

F3: Pause/stop playing music

F5: Continue playing music (When paused)

F7: Fast Forward music (When playing)

Shift + F5: Record played notes (When in live play mode)

Shift + F7: Enter live play mode

Track Editor:

Shift + +(and value): Transpose up

Shift + - :(and value): Transpose down

Shift + Return: Enter sequence/notes editor

Sector/Notes editor:

CBM+D: Set duration
 CBM+G: Set glide value
 CBM+S: Set instrument
 CBM+V: Set volume of channel
 CBM+X: Set switch effect
 = : Set end of note
 £: Place gate on current sound (Depends on how the sound is set, use £ to stop the sound playing in current sector)

Keys Q-P, 1-0: Make notes
 < >: Change octave of all notes from cursor position.

Synthesizer:
 Shift + +: Select next instrument
 Shift + -: Select previous instrument
 Shift +1 - 7: Select octave
 Keys Q-P, 1-0: Play notes
 Shift + Return: Exit sequence/notes editor and return to the track editor

Instruments / waveform editor:
 Shift + +/-: Select next/previous instrument.
 Shift + Return: (Edit waveform / Exit waveform editor)
 Spacebar: Test instrument
 (Use back arrow twice to exit)

Filter editor:
 Shift +/-: Chose filter to edit.
 (Use Back arrow twice to exit)



If you need to learn to create instruments, etc. Check out the Music Scene feature on my web site at <http://www.redesign.sk/tnd64>.

All Round Re-locator (The Syndrom/TIA)
 This is a music re-locator that can relocate tunes that have been composed in either an old version of the JCH player (JCH Player V4), DMC V2.0, DMC V3.0, DMC V4.0 or DMC V5.0. Tunes can be relocated from their current position to a newer position in C64 memory. This tool was handy for me to relocate my tunes for my game projects, so that I could have one tune at \$1000-\$1fff and another from \$9000-\$9fff, etc. Depending on how many tunes I wanted to use for the games/demos.

Font Editor V1.3 (Faces)
 This is yet another tool I used to use to draw my own character set graphics for my own productions. The editor allows you to draw character sets of various sizes, which are 1x1, 1x2, 2x1, 2x2, 2x3, 2x4, 3x2, 4x2, and 3x3. This font editor also has music playing in the background.

I need not give you any help on how to use this old tool, as the help file is already in this very nice tool.

We hope you have fun drawing your char sets with this tool.



Sprite Editor V1.2 (Faces)
 Yet another graphics drawing program, that allows you to create you own hi resolution or multicoloured sprites for your own games or demo productions. I often used this program a lot, because it is very easy to handle. You could even save your own sprites from one range to another, which helps me even more, to save separate sprites.

This tool also have instructions to help you on your way to making your own game/demo sprites, with its handy functions, so I need not give you any help for this tool.



Amica Paint V1.5 (Oliver Stiller)
 This is a painting program which I also used a lot to paint stuff. This tool consists of a wide range of options to help you draw, pixel and enhance your pictures, such as bending, rotating and other options, which don't exist in many C64 painting programs. You can also use an amiga mouse instead of a joystick if you needed to. There is a later version of Amica Paint available at <http://www.lemon64.com> in the applications section. I did not bother adding that version to the disk because of the other files that supports the utility.



Picture Splitter V2 (Plush)

This is a very handy utility to help you split your picture into three different files, or even swap colours. You can load various images on to this program. Those can be Amiga Paint, Koala paint and a few others. Splitting a picture is simple. All you need to do is chose the memory locations to place your bitmap file, video RAM and screen colour RAM.

Here is how to do this for intro pics :o) The way I do it is quite simple. I place the bitmap at hex \$2000, the video RAM at \$4000 and the colour RAM at \$4400, especially when it comes to coding picture demos. However, if you wanted to turn your picture into a Vidcom painter picture, simply set bitmap at \$6000, colour RAM at \$5800 and screen RAM at \$5c00.

Other options in the picture splitter is a routine that will allow you to swap colours with a different colour, simply by using keys 0-9 and a-f and return to perform swap.

There are also some options that wall allow you to lighten or darken your picture to how you'd like it. Nice

Visiomizer V6.3 (Magnus Lind)

Here, we have a handy utility by the author of the Exomizer. However this is probably one of the *best* char packers available for the C64. The concept is like many other packers, except that you can change load addresses for linking something to your intro/demo (say your own game or another demo part).

The concept of this program is to compress single files that range from \$0800-\$ffff (probably lower than \$0800). The program asks you to enter your filename details (The file that is on your disk which you want to pack). Then it asks for \$01 value. I always use \$37 as the \$01 value, so I would recommend that you do that as well with your programs. The packer also asks for Jump address? Well it may vary. It depends on the program.

Actually let's help you out a bit using this packer (If you have an action replay cartridge or reset cartridge with m/c monitor). Download a SEUCK game from my web site. Run the game. Freeze/reset to M/C monitor and enter S "(name of game),8,0801,FFFF. When done load the Visiomizer and enter as follows:

```
Loadname: game
Savename: game+
$01      : 37
JMP$     :4245
Loadback $: 0801
Leastgain: $08
Maxspce: $0c
```

Insert your disk for packing and the program will work with the packing process. Now when prompted to save the file, press spacebar to save. After save, reset C64 and load the directory and you will notice that the game has been packed. The next step will be to test the depacker. So load game+ and then enter SYS2049 and the game will depack and run. If the game is fine, well done you done it correct. Else if parts of the game messed up. You may have gone wrong somewhere. Remember that for all SEUCK games, the jump address is \$4245.

Sledgehammer II (Cross)

This is yet another packer, but this time it has a built in linker. The main purpose of using this tool is to grab all data and code and link it all into one main file. You can link up to 252 blocks of data, but the problem is that the load addresses must differ and be in order, else the packer will overwrite existing data causing the packed program to bomb. Anyway, you can even pack one single unpacked file. So yet again, let's try it out.

First of all download a SEUCK game from the TND web site. This time we will save it in two separate files :o)). Load the game and enter the M/C monitor and then do as follows for the first file. S "GAME1",8,0801,A000 then for the second file S "GAME2",8,A000,FFFF. Load up Sledgehammer II from the menu and exit the intro with spacebar and then insert the disk which you saved both SEUCK game files from.

Enter the depack text option and clear the screen then select depack effect as nothing (No depack text and effect is more helpful for slightly bigger compression for when it comes to using a cruncher.) Now enter the Sledgehammer.

Insert the disk with the two game files and press spacebar to start. Now highlight both files and press return. You will then see a 1 or 2 appear (These are the files that have been selected and will load in that kind of order). Once done, use Spacebar to enter the Sledgehammer II packer and fill in the following:

```
SAVENAME: GAME+
JMP TO   : $4245
$01 VALUE: $37
```

When done, the loading and packing commences. Once packed, press spacebar to save the packed file to disk. The file will then save. Reset the C64, load and run the packed file. You will get a black screen and will have to wait a short while for the depack to finish, then your game should come on.

Super Zipper V8 (Oneway)

This is probably a modified version of the 4-Code Zipper classic packer. Unlike Sledgehammer II and Visomizer. This tool is a simple char packer that is compatible with different hardware/software fast loaders. Entering information for packing of data is purely the same as with Sledgehammer II and Visiomizer, but it does not pack as good as Visiomizer, although still usable.

The Cruncher AB V3.0 (Oneway)

Here is something to accompany the Visiomizer packer. A damn good cruncher. You can chose a type of flashy border (for depack effect) if you wanted to, but it is not mandatory. In fact, you're better off without an effect if you don't want it. Anyway instructions about the effect to chose is simple. Spacebar will test the effect.

You also have a choice of three different crunching methods which are simply the following:

1. 202 Block fast crunch (Extra RAM)
2. 111 Block fast crunch
3. 202 Block slow crunch

If you chose option 1 on this cruncher, you will need to have 256K RAM installed on to your C64. In the past, to increase RAM for home microcomputers there used to be cartridges known as RAM

Expansion Packs. You'll get a fast 2-pass crunch which will take a maximum time limit between 10-15 minutes (Depending on how much memory is to be crunched down to size).

If you chose option 2 for this cruncher. You wont need to have 256K extra RAM. You can use BASIC kernal load or any other hardware/software fast load. However your program size is limited to 111 blocks. Any higher and the cruncher will crash.

If you chose option 3 for this cruncher. You wont need to have 256K extra RAM. You will need to have a lot of patience. Why is this? Well it is because (depending on your program size) the crunching time may take up to 2-3 hours, which means you need to sit back and relax or go to sleep for the time limit :o).

The cruncher uses its own software loader. Anyway. Say you packed a program using the Visiomizer, and want to crunch your program even further to get a smaller amount of memory. Use \$0801 as the jump address. It wont fail if you get it right.

Exploding Faces Cruncher (Epic)

This is a version of the Exploding Cruncher, originally created by faces. However this version has high speed loader, and faster compression. Unlike the Cruncher AB, this program allows you to compress your programs in a one-pass mode.

Dir Master V8.4 (Hitmen)

This is a perfect C64 tool if you want to enhance and manage your own directories on disk. For example you can edit tracks/sectors, load addresses and even disguise some of your programs inside the directory. With Dir Master V8.4 you can create your own directory stamps, to give the directory art.

Be very careful if you do this because if you do, loading a directory from disk for listing will take a longer time. It depends on the size of your directory. There's a help file to get you started with this handy tool. All you need to do is use '*' to enter the help screen.

Well those are all the tools on this disk. We hope you will find those to be really handy. But before I go, I want to help you out a bit on finding out how to convert an SYS address to a hex address for usage on a packer+cruncher.

In a M/C monitor i.e. Action Replay cartridge, use the following.



To find the following SYS addresses displayed in BASIC into hexadecimal:

2049:
N 2049

2061:
N 2061
Result = \$080D

20480:
N 20480
Result = \$5000

49152:
N 49152

That's it. You may find various useful information about C64 machine code from

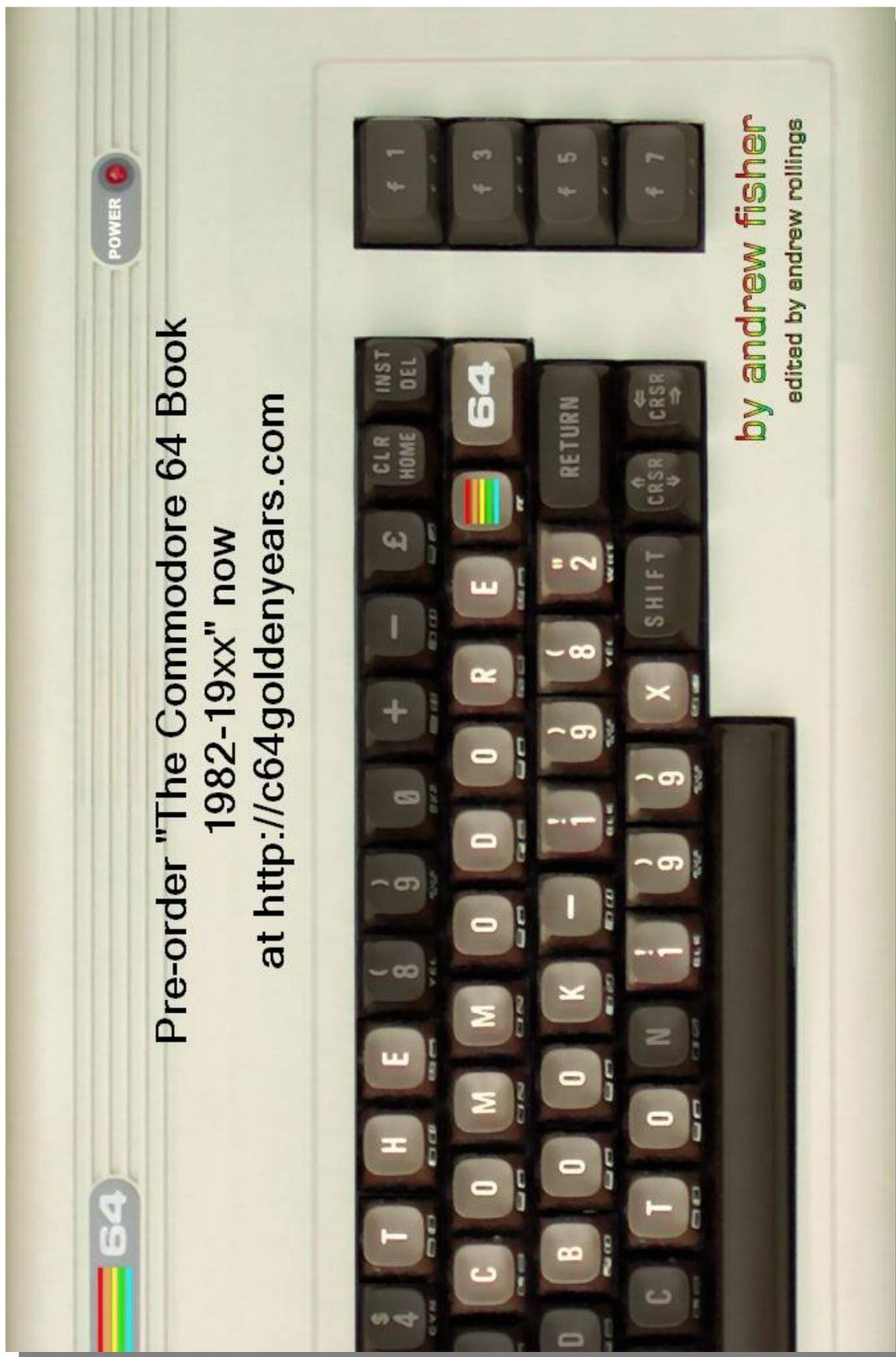
<http://project64.c64.org>

Commodore Free

Richard Thanks for your efforts on this, everyone else you should be able to download this disk image from the Commodore Scene website by the time you read this text

I am hoping to expand the utilities section of the site with other tools and utilities for users to download

The End



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at <http://c64goldenyears.com>

by andrew fisher
edited by andrew rollings



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