TPUG Newsletter

Views and News of Toronto Pet Users Group
c/o John Easton, 258 Lake Promenade, Etobicoke, Ontario, M8W 1B3 phone (416) 251-1511

Fall — 2016

From your President

Almost 32 years ago Commodore unveiled the last of their great 8-bit computers the Commodore 128. It was the computer that tried to be everything and was mostly rather successful at it.

It sported a MOS 8502 CPU partnered with a familiar VIC-II video chip running CBM Basic updated to version 7 in familiar 40 column mode. That was only the beginning though. The 128 also had a MOS 8563 video chip allowing it to output a crystal clear 80 column mode through an RGBI signal.

What else? That's right it was also completely Commodore 64 compatible! Okay, there were a small handful of titles that didn't work quite right but they don't count. Due to the 64's popularity there wasn't a whole lot of native 128 software written though. A double-edged sword to be sure.

If two computers in one wasn't enough for you, the Commodore 128 had a third mode that most users probably never even saw. The 128 also came loaded with a Zilog Z80A CPU that allowed it to run the CP/M operating system. CP/M had a vast software library particularly in the business application space. Unfortunately CP/M was already in the twilight of its life by the time the 128 was released.

World of Commodore 2016

Why do I bring up the 128 you may be wondering? Well, this year TPUG has a very special guest coming to the **World of Commodore on December 3**. **Bil Herd**, the primary hardware designer of the 128 (among others like the Plus/4 and 16) will be joining us. As most of you probably know, Bil is a wonderful storyteller and I'm sure he'll be sharing lots of stories about his days at Commodore!

World of Commodore will once again be held at the Admiral Inn at Erin Mills Parkway and the QEW in Mississauga. **The show is a full weekend this year running both Saturday and Sunday**. Come out and get reacquainted with old friends and perhaps even make some new ones that share our common, albeit, quirky interest in those wonderful computers made by the one and only Commodore.

Ian Colquhoun

Member Information

Website: **www.tpug.ca**
e-mail: **info@tpug.ca**

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$15 per year
else, with e-mailed Newsletter,
$10 per year

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Newsletter

Editor John Easton (416) 251-1511
jeaston@rogers.com

Meeting Schedule

Westside and Amiga West: Third Thursday of the month (except summer) at Alderwood United Church, 44 Delma Drive. Delma Drive is just west of and parallel to Browns Line, south of the Queen Elizabeth Highway, north of Horner Avenue. From the west, exit QEW at Evans Avenue, east on Evans to next stoplight, south on Gair to Delma Drive. From the north or east, follow signs from QEW or Hwy. 427 to Browns Line, exit right to Evans Avenue, turn south on Gair (first stoplight) to Delma.

Contact - **Leif Bloomquist** (416) 737-2328 leif@schemafactor.com
or **Ernie Chorny** (905) 279-2730 chorny@bell.net

From your Editor ...

Well now, and hasn't it been a busy summer? At least for me … you see, my wife now has a new heart valve, we lost a daughter to Mesothelioma (30 years teaching Phys-Ed in a gymnasium coated in Asbestos) and, on the way to last month's TPUG meeting to open the doors, my car was totalled by a spinning-on-wet-pavement and coming-in-the-opposite-direction, 65 Buick … all steel and built like a tank. *"But, other than **that** Mrs. Lincoln, how was the play?"*

Welcome back to our intrepid readers … and read on. This issue combines reports of club members' local activities with information on the up-coming World of Commodore and the up-coming AGM.

With regret, I must report that with THIS issue we've run out of one favoured topic, **Joe's World**. You see, `way back when', Joe Quittner was in the habit of turning up at monthly TPUG meetings with photocopies of neat new programs he'd devised for use on his favoured C=64. Now that he's well into his nineties, he's admittedly been forced to curtail his travels and his creativity. Thanks so much Joe for your valued contributions.

And, thanks again to Tristan Miller (our new-found reporter from Germany) … Commodore Code Golf … a fascinating concept. But, this time we have at least a picture to accompany the logic.

And, Bil (no, Spell Checker, it's real). Herd … we look foreword to hearing what you and the World of Commodore have in common.

Your Obedient Servant
John

TPUG Newsletter is meant to be published somewhat twice yearly by the Toronto Pet Users Group (TPUG). TPUG is a volunteer non-profit club dedicated to the service and support of owners and users of Commodore computers.
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Advertisements are also welcome. Member's small ads are free. Commercial ads are $100 per page with a $10 minimum.

Notice to new owners of SuperPet and CBM 8296 machines

TPUG has copies of the Waterloo LANGUAGE DISKS (3 in 4040 format) as supplied with the SuperPet on original purchase.

TPUG has the EXECUDESK disk (8050 format) as supplied with the CBM 8296 on original purchase.

These disks are an integral part of the operating systems of the above machines and since Commodore insisted on referring owners of these machines to TPUG for service, we have added these somewhat proprietory (and also virtually unobtainable) disks to our library - all part of the TPUG mandate of service to our members.

We also will attempt to search out copies of original program disks to replace corrupted disks. In this category you will find such programs as VISICALC, WordPro, and PaperClip.

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Note: Dealers and User Groups Welcome

TPUG AGM

Take notice that the **Annual General Meeting** of TPUG will be held in conjunction with the regular February 16th 2017 meeting, only earlier—7:00 p.m. This is your opportunity to discuss club issues and to contribute to the organization as desired.

Typical items covered at an Annual Meeting are, but not limited to: quorum, minutes of the previous meeting, reports on activities within the club, new business, nominations of officers and election of officers.

If you are unable to attend, and wish your proxy vote counted, please ensure that your assigned proxy is in the hands of the Board prior to the meeting. E-mail to the vice-president, *jeaston@rogers.com* will be considered a legitimate means of submitting a proxy to the Board.

Typical Proxy Voting Format

This will allow …….. to vote on my behalf on all matters at the Annual Meeting of TPUG held 18 February 2016.

Name …….. TPUG Member # ……..

Signature …… Date ……..……..

This year, the candidates for 2-year renewal as director are:

Leif Bloomquist
Greg Van Laere
Steve Gray
Tom Luff
Joe Palumbo
Tom Williams

Come prepared to volunteer and join the list, but at least … vote

JP. PBM Products by Mail is the NEW Manufacturer of Super Snapshot Cartridge V5.22 - NOW SHIPPING

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Joe's World ... 31 Simple Sound

```
0 rem" simple sound by Joe Quittner
1 poke55,100:poke56,25:clr:rem protect 6500+
2 print cH(14)cH(144):rem black upper
case/lower case
10 def fna(i)=i-256*fnb(i)
11 def fnb(i)=int(i/256)
12 def fnc(i)=peek(i)+256*peek(i+1)
13 def fnf(i)=int(.5+i/.060959458)
14 def fnpw(i)=int(.5+i*40.95)
15 def fnr0(i)=int(.5+i)
16 def fnr2(i)=.01*int(.5+100*i)
20 if fnc(1020)=0 then
poke1020,100:poke101,25:poke6500,0
21 poke 56296,15:rem max volume
22 poke 54277,0:poke 54278,240:rem set
at,de,su,re
30 for i=820to1019:read a:if a>255 then 100
31 poke i,a:next:stop
40 data 230,251, 208,2, 230,252, 96:rem in-
crement 251/2
41 data 162,0, 165,251, 197,253, 208,8,
165,252, 197,254, 208,2, 162,101, 96
100 print"            M E N U :
101 print" 1. Type new sound data
102 print" 2. Save all to disk
103 print" 3. Load all from disk
104 print" 4. Show data of all sounds
105 print" 5. Play
106 print" WHICH? ":gosub 997:print
g$:g=val(g$):if g<1 or g>5 then 101
200 on g goto 1000,2000,3000,5000,6000
997 poke 204,0:get g$:if g$="" then 997
998 if peek(207)then 998
999 poke 204,1:return
1000 rem" Type new sound data:
1010 m=fnc(1020)+1:input" ID of
sound(s)":;id$:rem " Identity
1011 k=len(id$):for i=1 to k:poke
m,asc(mid$(id$,i,1)):m=m+1:next:poke m,1
1012 te=128:input" Tempo (0-
255;128=normal)";te:m=m+1:poke m,te
1013 input: Frequency (0-3995
Hz)";f:f=fnf(f)
1014 m=m+1:poke m,fna(f):m=m+1:poke m,
fnb(f)
1020 input" Length of time of sound (0-255
jiffies)";t:m=m+1:poke m,t
1021 print" Another note? ";:gosub997:print
g$:if g$="y"then1013
1030 m=m+1:poke m,0:m=m+1:poke m,255:print
m:poke1020,fna(m):poke1021,fnb(m):goto 100
2000 rem"   Save all to disk
2010 f$="simple sound.d":input" FILENAME or
RETURN";f$:m=6500
2011 close8:open8.8,8,"@0:+f$+",s,w
2020 a=peek(m):a$=cH(a):print#8,a$;:if a=255
then close8:print m-1:goto100
2021 m=m+1:goto2020
3000 rem"   Load all from disk
3010 f$="simple sound.d:input" FILENAME or
RETURN";f$:m=6500
3011 close8:open8,8,8,"@0:"+f$+",s,r
3020 get#8,g$:g=asc(g$+cH(0)):poke m,g:if
st=0 then m=m+1:goto3020
3021 close8:m=m-1:print
m:poke1020,fna(m):poke1021,fnb(m):goto100
4000 rem"   Printer on? Printers differ;
this works for the one I use
4010 p=0:print" Printer on? ";gosub997:print
g$:if g$<>"y"then return
4011 p=1:close5:close7:open5,4,5:open7,4,7
4020 for
i=1to5:print#5,cH(27)cH(108)cH(5):rem" Left
margin=5
4021
print#5,cH(27),cH(81),cH(77):next:return:rem
" Right margin=77
5000 rem"   Show data of all sounds
5010 m=6500:h$="":gosub4000
5011 for i=m to m+80:a=peek(i):if a=1
then5013
5012 h$=h$+cH(a):next:stop
5013 print" This ID is "h$;:m=m+3:if p then
print#7,"The ID is "h$;
5014 m=i+1:a=peek(m):a$=mid$(stR$(a),2):
print "Tempo="+a$: if p then print#7,
"Tempo="+a$
5015 m=m+1:a=fnc(m)*.060959458:a=fnr0(a)
5016 print a"Hz,";:if p then print#7,a"Hz,";
5017 m=m+2:a=peek(m):print a "Jifies
5018 if p then print#7,a"Jiffies
5019 if peek(m+2)=255 then gosub997:goto100
5020 if peek(m+1)=0 then 5030
5021 goto 5015
5030 print:if p then print#7
5031 m=m+1:h$="":goto 5011
6000 rem"    PLAY
6002 input" Which ID";id$:k=len(id$):for i=1
to k
6003 a$=mid$(id$,i,1):a=asc(a$):poke
678+i,a:next:poke 679+i,1
6004 poke 251,100:poke 252,25:poke
253,255:poke 254,159
6005 data 162,0, 160,1, 177,251, 201,255,
208,3, 162,101, 96:rem 255?
6006 data 217,166,2, 240,20, 32,52,3,
32,59,3, 224,101, 208,1, 96
6007 data 160,0, 177,251, 208,239,
76,76,3:rem next zero?
6008 data 200, 177,251, 201,1, 208,8,
185,166,2, 201,1. 208,1, 96
6009 data 24, 144,213
6010 sys 844:if peek(781)=101 then print" ID
not found":gosub 997:goto 100
6020 m=fnc(251)+peek(782)+1:te=peek(m)
6021 m=m+1:a=peek(m):poke54272,a:m=m+1:
a=peek(m):poke 54273,a:rem frequency
6022 m=m+1:t=peek(m):t=t*te/128
```

```
6023 t0=ti:poke 54276,33
6024 if ti<(t0+t)then 6024:rem time
6025 poke 54276,32:a=peek(m+1):if a=0 or
a=255 then goto 100
6026 goto 6021
6999 data 999
```

Joe Quittner, TPUG, June 17,2010

Solutions to Commodore code golf ... page 6

```
1)
a=aS("c")-aS("a"):fOi=atoaS("H")stEa:?i:nE

2)
0 for i=84+5to127.
3?chr$(i);:next
6rem "!#%&'*,-/<>@abdgjklmpqsuvw

3)
3a=44-33:a$="emspX!pmmfI
4?cH(aS(mI(a$,a,a/a))-a/a);:a=a-a/a:ifagO4

4)
1s=56/8
2?sP7);
3?"?"::
4s=s-+1
5ifsgO2
6?-8^6;
7?sP1):
       8
```

TPUG member Bryan Pope poses with Levar Burton (Commander Geordi La Forge on Star Trek: The Next Generation) at London Comic Con 2016, wearing his World of Commodore 2015 T-Shirt.

Commodore Code Golf

Tristan Miller https://logological.org/

Code golf is a programming game in which the object is to write the shortest possible program that performs a particular task. A code golf challenge may impose additional restrictions on the source code, such as requiring or prohibiting the use of certain characters.

If you programmed a Commodore machine in the '70s or '80s, you're probably a natural code golfer. Programmers of that era, hobbyist and professional alike, had to contend with small memory sizes and slow BASIC interpreters, so there was a tremendous advantage in squeezing every last extraneous byte out of a program.

An example code golf challenge is as follows: Write a program whose listing fits into an n×n square of characters. That is, the source code must be exactly n lines long, and each line must consist of exactly n characters. Each of the n lines and each of the n columns must contain at least one space character and one non-space character. When run, the program should print an n×n square of characters corresponding to the "negative" of the source listing. That is, for each space character in the listing, the program should print a non-space character, and vice versa. (The choice of non-space characters is irrelevant.)

Below is one possible solution to the challenge, using Commodore BASIC 2.0 in a 9×9 square. (Of course, this solution relies heavily on BASIC keyword abbreviations, and on the fact that the BASIC full-screen editor ignores leading and trailing spaces. The listing no longer fulfills the requirements of the challenge when output with the LIST command. But of course, exploiting such quirks is part of what makes code golf so much fun!)

```
0dA8,7,6
1dA5,4, 3
2dA2,1 ,0
3rEs: rem
4?sP s)::
5:? "*";:
6p =8---s
7 ?sPp):?
 8ifsgO3:
```

When run, the program prints the following negative:

```
        *
       *
      *
     *
    *
   *
  *
 *
*
```

So, think you're ready to try your hand at some Commodore BASIC code golf? Below are four challenges, in increasing order of difficulty. Sample solutions appear elsewhere in this issue.

1) Write the shortest possible program that prints all the even numbers from 2 to 200. Restriction: The listing itself may not contain any numbers (so you'll probably have to use direct mode). (Par: 42 characters.)

2) Write the shortest possible program that outputs all printable PETSCII characters, and only those characters, between CHR$(32) and CHR$(127) that don't appear in the program's listing. (Par: 63 characters.)

3) Write the shortest possible program that prints the text "Hello World". Restriction: The listing may not contain the characters 'h', 'l', 'w', 'd', 'H', 'L', 'W', 'D', '2', or '7'. The restriction should be understood as also applying to the PETSCII graphics characters corresponding to 'H', 'L', 'W', and 'D' in the unshifted character set. (Par: 66 characters.)

4) Write a square program that prints its own "negative", as described in the example above, but do so using an 8×8 or smaller square.

Solutions to Commodore code golf on page 5

Tristan Miller
Free Software developer, ferret herder, logologist

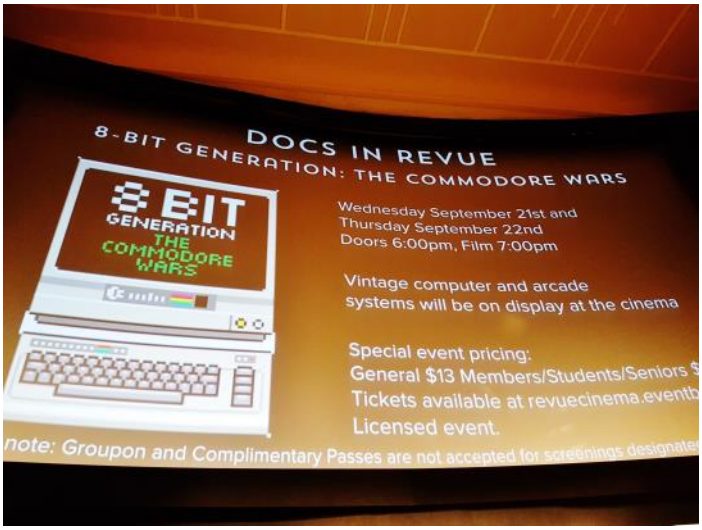
https://logological.org/

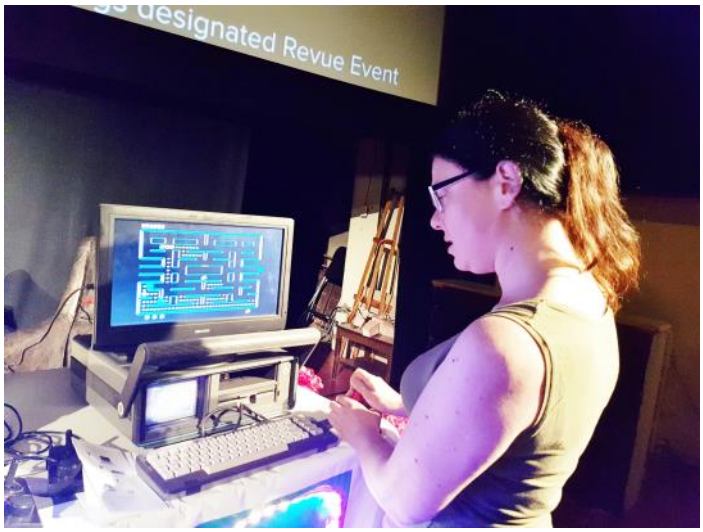
Movie Night With TPUG

Did you hear about it? "Growing The 8 Bit Generation" was a successful Kickstarter campaign to document the early history of Commodore. Rebranded as "Growing The 8 Bit Generation – The Commodore Wars", a two night showing was held at Revue Cinema, a beautiful community-run cinema build in 1912, in Toronto and TPUG was invited to participate.

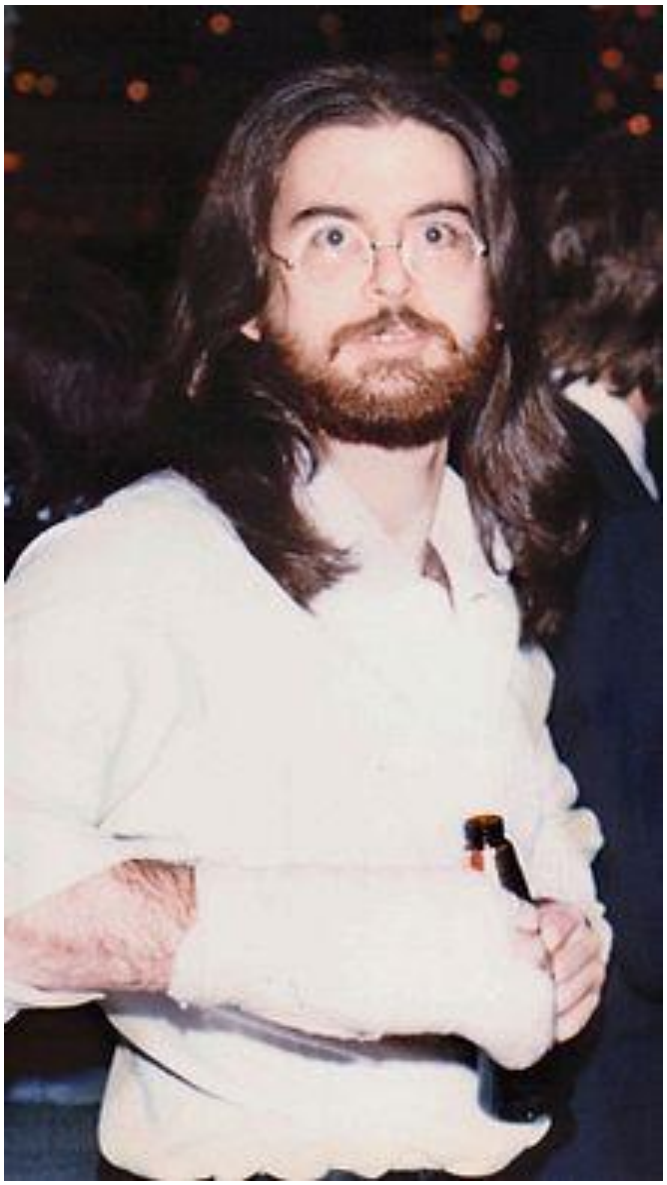
On September 21 and 22, 64's, 128D's and a Multiple Classic Computer were on display to show movie goers exactly what was created in those heady days. Tom Luff, Leif Bloomquist, Mike Stein and Ennio Cellucci presented various games from back in the day and the couple dozen audience members each night got the opportunity to play classics like Choplifter and Frogger. One audience member who came out brought a box of floppy disks with software he had written, including a virtual drum kit! Many recounted childhood memories while learning more details about Commodore history. The crowd was also surprised to find new hardware being created today, such as the SD2IEC card.

Thanks to the volunteers as well as to Eric Veillette of Revue Cinema and Kyle Greenberg of Bond Influence file distribution, a fun, fascinating and enlightening evening was had by all!





About Bil Herd



Bil Herd—Christmas party 1985

Bil Herd is a long time electronics hobbyist, engineer, and entrepreneur. Bil was self taught in an age before the Internet which required large amounts of research and study from every source (still has over 800 books) he could find and became licensed as a TV and CB repairman at the age of 17. By the age of 24 Bil had risen to the position of Senior Hardware Design Engineer at Commodore Business Machines, the creators of the most popular computer ever made, the Commodore 64. During his time at CBM, Bil designed the Commodore C128 and was lead engineer on the Plus4/264/116/C16 series of computers and did the initial architecture for the Commodore LCD machine which sadly did not see production.

Bil has also served in the Army National Guard where he was decorated for Meritorious Service, and has also worked in a Trauma Center and Ambulance/Rescue squads where he held the ranks of Captain and President. This website hopes to capture some of the stories and experience of many years of Electronics, Technology and maybe even some EMS in a way that may relate and entertain.

Need some extreme engineering? Catch Herd and his band of cohorts at www.mercury-cg.com and the upcoming website featuring new designs centered around FPGA and educational kits at www.Herdware.com Please feel free to register here to receive email updates and general retro-news.

For those that knew Bil Herd in the old days you may notice that Mother Nature has played a little joke on him with regard to hair style as seen in the video. I didn't always have short hair as seen by the thumbs below:

For more of Bil's antics, check out :

http://homepage.hispeed.ch/commodore/c128_story.html

Bil Herd (right) and chip designer Dave DiOrio

Circa 1983

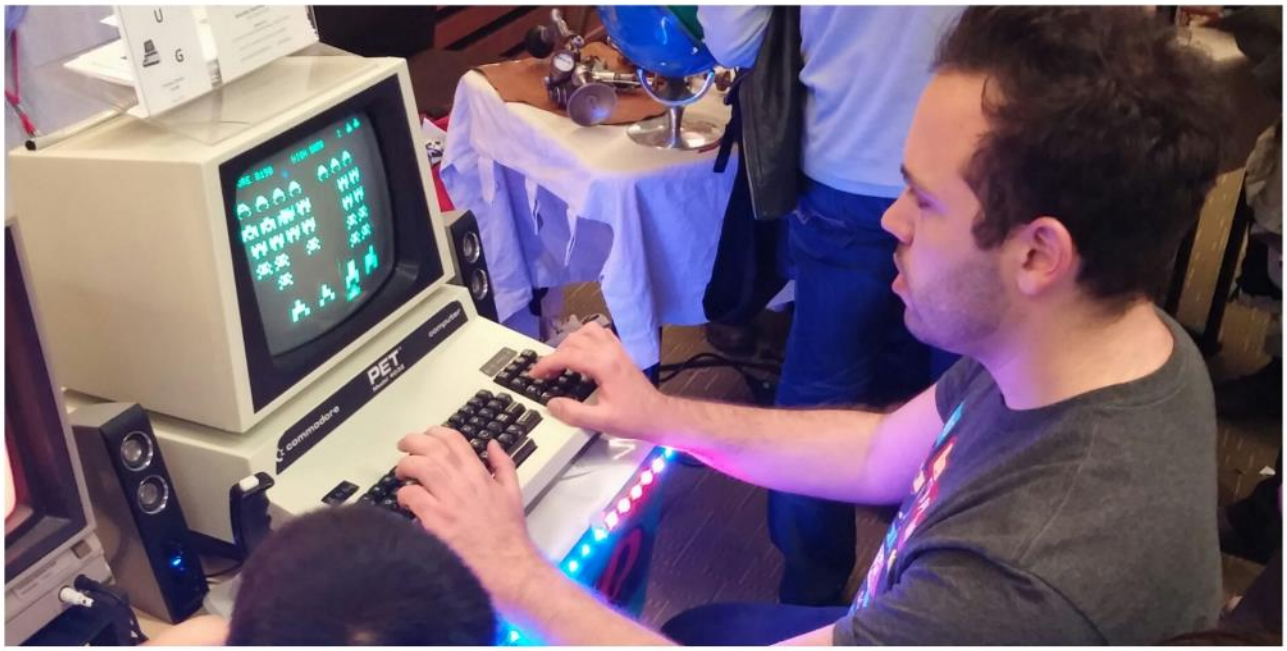
Bil Herd (right) speaks to Jack Tramiel at the 25th Anniversary of the Commodore 64 at the Computer Museum in 2007

Nostalgia

This is Jonathan Moneta, who clearly enjoyed playing games on a PET as a kid...and rediscovered them as an adult at TPUG's Booth at Maker Faire 2014!

It's also amusing to note that it's the same game in both photos - Space Invaders!

Photo Credit: Daniel Moneta



From the Net

Hi everyone,

I was successful in my search for some PETSCII movies and have put several up on Centronian BBS.

Currently showing are:

Alien Terror
Drunk Eddie 1 & 2
TMNT episode 1
Tetrisized
Snowball

The BBS currently runs at 1200 baud (I'm working on a 2400 baud upgrade, tcpser issues...), but that's actually a good thing for watching old PETSCII movies. Most were made for 1200 baud, or max 2400 baud, so they play nicely. On faster BBSes they just fly past.

Anyway, please give the BBS a call and check them out! I'll be changing them up every so often, so there will be new things to watch in the future. You can telnet from a C= machine, use CGTERM, or use the terminal on the website:

centronian.servebeer.com 6400

Enjoy!
Kevin Casteels

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Meeting Summaries

Steve Gray

Apr 2016
Topic: Video Party

This month we kicked back and watched some Commodore or Commodore-related videos. Our meeting was held in the Church lounge room instead of our normal room. This room was quite tall and we were able to project the videos onto one of the large walls. It kinda felt like a real movie theatre.

Videos were interrupted when Tom called us all out to the parking lot where he was selling some of his vintage gear at low-low bargain prices!

I managed to pick up some keyboards and some nice quality video cables. Also seen were strange video cameras, project kits, stacks of disks,

and even a remote-controlled car.

Back to the room, we continued to watch movies, while groups discussed vintage projects.

Here is a link to the videos:
https://www.youtube.com/playlist?list=P ... bfilUeeUlx

May 2016
Topic: Other Vintage Computers

This month was it was "bring your non-Commodore retro computer". Many of us are into other vintage computer systems and this was our chance to show off some of our other treasures. There was quite the variety on display: Atari 800, TI-99/4A, Coco 1, Coco 3, a Wyse Terminal, a breadboarded Apple thing, Osborne, Sinclair, and even a BBC Model B courtesy of yours truly. Several systems had modern card storage solutions for loading software. We even had a unique 1960's era calculator with crt display. A couple members also brought in their NON-"NON-Commodore" machines to get diagnosed. TOM once again had some equipment and books to sell off. It was quite an interesting meeting with some good memories being shared.

Next month it's "repair night", so gather up your dead or dying Commodore stuff. Usually there are members who bring in diagnostic carts/tools, and soldering irons etc. See you then!

Jun 2016
Topic: Repair Night

This month was the annual "Repair Night". There was a variety of equipment brought in, including an OSI C4P in an old IBM PC case which was bought from a second-hand store for $10! Inside were various boards including a rare "TOSIE Hacker" board and third-party D&N memory and disk controller card. Sadly the machine had no keyboard and there seemed to be three or four power supplies.... very strange. Also seen was an SX-64 that needed a drive repair, and a Colecovision or two. Walter brought his eprom eraser and I brought my eprom programmer to try to burn some eproms for Tom L, but unfortunately we could not get the drivers installed on Walter's laptop.

Mike S and I were trying to get my PEDISK-II clone floppy drive controller for the PET working. Mike's board was working great with his 8" half-height drive. My board used a ribbon cable, which turned out to be wired incorrectly and sadly could not be fixed. Also on display was Leif's Oric Keyboard interface using an arduino to interface via USB to a laptop - very cool.

Well, that's it for this June. As a reminder, we take a two-month hiatus so we can finally enjoy the good weather. See everyone again in September! Enjoy the summer!

Sept 2016
Topic: VCF-MW Show Report

This month Josh B showed pictures and videos from the Vintage Computer Festival - Midwest 2016 Show. Josh and others had a booth for

the 40th Anniversary of the COSMAC ELF microcomputer trainer as featured in Popular Electronic, Aug 1976. Their booth had a

hands-on building of a kit that was auctioned off at the end of the show. Many ELF variations were shown. Also in the pictures

was Joey's booth with his usual Commodore faire, pics of Jim Brain's new prototype memory display panel and lots of other goodies.

Leif had a very cool "3D Mouse" for his non-commodore laptop. And, as usual, once the main presentation was finished we broke into groups and discussed the various projects we're working on. See you next month!

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— Fall 2016 —