TPUG Newsletter

Views and News of Toronto Pet Users Group, Inc.

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Volume 5, Number 4 **Winter 1994**

From the President -

Dear TPUG Friends:

Earlier this year, many Commodore users were distressed by the liquidation proceedings initiated by Commodore Business Machines. The Commodore organization was put up for sale and several potential buyers expressed interest. At the beginning of December, the situation has not been resolved although it does appear that Creative Equipment International (CEI) of Florida will be the likely purchasers.

TPUG understands that CEI intend to carry on in the computer business, making and marketing the AMIGA and CD32 lines and reportedly planning to continue with research and development for the next generation of AMIGA computers.

This is heartening news especially to AMIGA users as they should see new computers and a resurgence of third party hardware development along with new software.

For the C64/C128 users, the Commodore situation is not so important as Commodore discontinued support for these computers several years ago (however there is a concern about availability of replacement mechanical and electronic components).

C64/C128 owners have turned to companies such as Creative Micro Design (CMD) for excellent add-on hardware and to user groups such as TPUG for software, problem solving and computer education.

TPUG intends to continue providing these services for all "Commodore" computers and for the expected new products from the successful purchasers of the assets of Commodore Business Machines.

One sad development resulting from the uncertainty surrounding Commodore, is that the annual Commodore/World of AMIGA show held in Toronto will not take place in 1994. This show provided a wonderful opportunity for users, hardware/software developers and retailers, and for Commodore themselves, to get together and transact knowledge, business and comradeship. It is hoped that a World of AMIGA show will be held in 1995.

One of the last innovative products (along with the Ram Expansion Unit) that Commodore put on the market for C64/C128 users was the 1581 disk drive. This product with it's massive storage capacity (equivalent to 5.2 1541 type drives) provides the C64/C128 user with a modern, fast drive that uses readily available 3 1/2" disks.

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For users of all Commodore Computers :

- * PET/CBM
- * SuperPet
  - * B-128
- * VIC 20
- * Commodore 64
  - * PLUS-4
  - * C-16
- * Commodore C 128
- * AMIGA
- PC/MS-DOS

* Registered products of Commodore Business Machines, International

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Please leave a message

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Canada $25
USA ..... US $25
International ..... US $30

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BBS 2 SysOp .... George Skinner
CRS SysOp .....Dug Rodger

Newsletter

Editor John Easton (416) 251-1511

Meeting Schedule

C-128: First Tuesday of the month.
Contact - Dug Rodger (416) 588-9071
or Ernie Chorny (905) 278-2730
Amiga Central: Second Tuesday of the month.
Contact - George Cripps (416) 255-1436
C-64: Fourth Tuesday of the month.
Contact - Wilf Meissner - (416) 789-4335
All of the above meetings commence at 7:30 p.m. in the York Public Library, 1745 Eglinton Ave. W. (just east of Dufferin), in the Auditorium or Story Hour Room.

Westside and Amiga West: Third Thursday of the month 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 2nd 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 - Ernie Chorny - (905) 279-2730
or George Cripps (416) 255-1436

TPUG BBS — PunterNet Node 2

(905) 273-6300 (8N1)
24 hours a day, 7 days a week

TPUG BBS - 2 — FidoNet

(416) 733-4880 (8N1)
24 hours a day, 7 days a week

Canada Remote Systems (CRS)

TPUG conference via "J 74"
TPUG contact is TPUG SYSOP

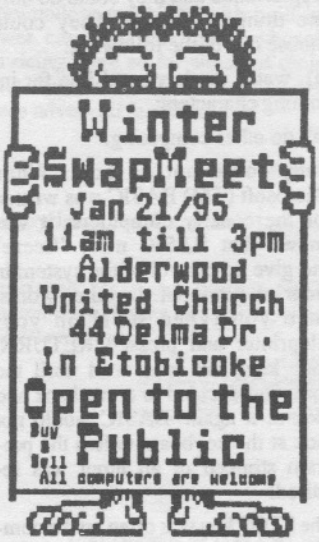
Tpug Newsletter is published quarterly by the Toronto Pet Users Group Inc. (TPUG). TPUG is a volunteer non-profit corporation dedicated to the service and support of owners and users of Commodore computers.

Articles, letters, tips, questions, art, etc. are welcome. Send hardcopy or disks "Attn: TPUG Newsletter", or use our BBS's, PCPN or CRS.
Advertisements are also welcome. Member's small ads are free. Commercial ads are $200 per page with a $25 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 insists 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.

TPUG always has a complete update of current FISH and AMICUS Disks in the Library



TPUG News

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TPUG was able to obtain 100 of these drives from Commodore for sale to our members. The price is a bargain (compared to prices for refurbished drives in the U.S.) as the drives are new and complete with power supply, serial cable, manual and demo disk. Further more, all the drives have been tested to ensure file reading/writing and partition functions.

Elsewhere in this issue is our "AD" for these drives and other material obtained from Commodore -- please refer to it and take advantage of the special pricing to obtain a quality high capacity disk drive that will enhance your system.

If you have friends who would like one of these drives they can obtain one for the price shown plus a TPUG membership. This total price is still less than buying from mail order houses.

GET ONE IN TIME FOR CHRISTMAS!

And speaking of Christmas, TPUG wishes you and your family a Happy Holiday Season.

Ernie Chorny,
President.

Don't forget the Annual General Meeting, January 17th and the Winter Swap Meet, January 21, 1995

J.P. PBM Products by Mail has just become the new Canadian dealer for LMS Super Snapshot Cartridge V5.22

We are pleased to offer this cartridge regularly $89.95. For a limited time SAVE $15 WITH THIS AD. UNTIL MARCH 31/95. **CURRENT TPUG MEMBERS SAVE $5 MORE** off the regular price before freight and taxes.

Mail Cheque/M.O. to:	SSv5.22 Cartridge	$89.95
JP PBM Products by Mail	save $15 now	- $15.00
BOX 60515 N. SHERIDAN MALL P/O		$74.95
DOWNSVIEW, ONTARIO	* TPUG Members (-$5)	-$_____
CANADA M3L 1B0	* 32K RAM add $19	+$_____
	subtotal	$_____
	7.5% Freight	$_____
All Prices Are Cdn Funds	Subtotal	$_____
15% Exchange On Us Funds	Ontario Res add 8% PST	+$_____
Send $2 for a catalogue	Canada Res add 7% GST	+$_____
on disk (64 format)	(CDN FUNDS) **TOTAL**	$_____

IT JUST HAPPENED

Jim Butterfield

I'm often asked about two features of Commodore machines. The first is the non-standard code, Commodore ASCII. Why did Commodore choose it? The second is the STOP key. Why doesn't it work during user input? Oddly enough, the answer to these two is related, and it is intertwined with the way these personal computers grew in the early days.

Back in the renaissance days of 1975 and 1976, personal computers were mostly home brew. You'd buy a mess of chips and would spend long hours attaching them to a circuit board. Sometimes you'd design your own system, and sometimes you'd buy a kit. Even with a kit, you'd customize your machine, often based on what was available and cheap in your neighborhood. Some hackers soldered their connections, others used an almost forgotten construction technique called "wire wrap". Back in those early days, each computer was unique, reflecting the style, pocketbook, and construction skills of its owner.

One of the biggest problems -- technical, financial, and practical -- was how to attach input/output to the computer. Keyboards could be found, although they were generally a collection of "uncoded" switches, so that the hobbyist had to figure out hardware and software methods to connect them. Output was more of a problem. Video displays were not common, and the logic and circuitry needed to allow character display on a CRT was not standardized. Many of the early "kludge" displays had barely enough logic to display a range of 64 characters. This would allow upper case alphabetics, numbers, punctuation, but no lower case.

"Rich" users would find a way to obtain a teleprinter. Suitable scrounging might turn up a Teletype (TM) model 32 or 35, which used ASCII code, upper case only. These terminals were also used by business for "time-sharing" where a number of users submitted their work to a central computer from their terminals. Again, these devices had no lower case, only capitals, and they shaped our concept of the nature of a computer terminal.

Now comes the first Commodore machine, the PET 2001, with its tiny keyboard and built-in cassette deck. The only alphabetic characters that seemed to be on these machines were upper case (capital letters), a carryover from teleprinter machines and early BASIC concepts. The competing machines of that generation -- the Apple][and the TRS-80 model 1 -- had only upper case letters.

In fact, Commodore was ahead of its competition in that it did have lower case in the first machine. These lower case characters were not visible unless you know to POKE 59468, 14, at which time many of the shifted graphics characters would change to lower case alphabetics. Thus, the heart graphic would change to lower case (not upper case) S.

Now, at that time, the character set used by Commodore was mostly true ASCII. An upper case A, for example, was code 64 -- correct ASCII. This is still true of Commodore machines in graphics mode.

But users started to get into word processing, and it didn't seem natural to use the SHIFT key to get lower case. You expect to press the SHIFT key for upper case. In their next model, Commodore conceded the point by flipping upper case with lower -- in text mode only of course. As a consequence, compatibility with ASCII was greatly reduced.

That's how we lost it, and that's why we need to translate characters when sending to a modem or to a non-Commodore printer. Commodore was more or less pushed into it during the evolution of their machines. Did they have any alternatives? Yes, but none of them seemed good. They could have completely switched around the character set, graphics and all, but we would have lost compatibility with early machines. They could have converted the graphics set so that in the graphics mode, you would have only lower case alphabetics, but that would look terrible on graphic screens. They could have ended up with the clumsy system on other computers whereby you cannot write a program unless you put the SHIFT Lock down.

The important point is this: Commodore was not engaged in some sneaky plot to invent their own character set. They just ended up being maneuvered into that position.

What about the STOP key. Why doesn't it work during a user input? Again, it goes back to the teleprinter machines of the early computers. The pioneer microcomputers were often hooked up to a teleprinter or other serial device. ("Serial", here, means something like the RS-232 interface -- not the Commodore serial bus.) They were so constructed and programmed that they could do only one thing at a time. They could choose one of the following:

(a) watch the keyboard line for incoming characters;

(b) do other computing.

They could not do both. When Microsoft (TM) BASIC was written for these early computers, it was known that BASIC must "freeze" and give up control of the system in order to get input. In other words, once you typed RUN on your teleprinter and pressed RETURN, your keyboard was dead until the computer decided to come back and look at it again. BASIC would not look at the keyboard unless the program stopped or an input was required.

The STOP key was often on the computer itself, not on the keyboard. The

program to check this key was implemented as part of BASIC. As your BASIC program was running, the interpreter would check the STOP key at frequent intervals and stop the program if the key were found pressed.

When BASIC executed an INPUT statement, it would suspend operation. The computer needed all the time available to watch the keyboard, and BASIC execution would be "frozen" until the desired input had been received. Naturally, BASIC wouldn't be checking the STOP key during this time.

In early days, only the Commodore computer left the keyboard "alive" while BASIC was running. It did that with a clever system, still used, called "interrupts", which allows BASIC and the keyboard to run virtually at the same time. So -- on Commodore machines only -- it would have been possible to watch the STOP key, even during input. But Commodore purchased their BASIC, which had been written for the "standard" machines of the day. So, BASIC didn't know of this advanced feature, and the STOP key did not work during input.

Funny, isn't it? It's as if the early Commodore machines with built-in lower case and interrupt keyboard servicing were so far ahead of their time that they were hampered by these advanced features.

Jim Butterfield

... copyright - Jim Butterfield

Reprinted from the August 1992 Commodore Users of Bartlesville (CUB) newsletter.

CUB
c/o Harold McCollum
1920 Santa Fe
Bartlesville, OK 74003

1581 Graphic by Tom Luff >>

128 VIDEO UPGRADE

With the stock 128's 16K Video Display Chip limiting the color bitmap image to 640x200 pixels, expanding the display resolution seemed like a good idea. And with the 64K VDC RAM Upgrade Daughter Board from SSI (still only $49.95), it turned out to be just that.

Following the clear instructions that come with the upgrade kit, I opened the 128's case, removed the 16K VDC chip, inserted the small "daughter" board with the 64K RAM into the VDC socket, then reinserted the old VDC chip into a socket on the daughter board. It wasn't difficult, but it was a it tricky. If you feel uncomfortable with the idea of doing it yourself, any technician would do it for you -- for a fee, of course.

When the 128 is turned on after this upgrade, it acts as if it had only 16K of video RAM; in order to access that extra RAM, specific software is required, such as I Paint from Voyager Mindtools.

This is a powerful paint program which produces an amazing 640x400 interlaced color display on the upgraded 128. Interlacing is the same technique used on the Amiga's 400-line display, with the same noticeable flicker.

Another package for the upgraded 128 is Basic 8 from Free Spirit, which includes a graphics programming language, a run-time library, a calc program, a paint program, plus other utilities and programs. Free Spirit also offers Spectrum 128, a paint program; also Sketchpad 128, a drawing program; and now News Maker 128, a DTP program, all utilizing the additional Video RAM.

[Free Spirit recently sold all programs and rights to Software Support. TC-Cubed editor]

Masterpaint is another paint program, offered by SilvaSoft, that works in the 8x2 color-cell mode. SilvaSoft also has an animated graphics adventure program called Maidstone Quest.

Ante Up is a graphics conversion program that works with Basic 8, GEOS, and most other graphics programs.

SSI has two disk copy programs that support the 64K upgrade: Fastrac 128 and Maverick.

There you have it; a number of programs that work with the expanded VDC RAM on your 128 and there may be even more! I have a couple of them that I'm trying to work on, and may get others -- like Ante Up.

Reprinted from the November 1993 "DataLine 64" newsletter.

CRASH-64 User's Group
P.O. Box 241
Salem, OR 97308-0241

Tom's World

Tom Luff

During the seasons of fine weather it is not unusual to see garage sales on every block. Items sold at the sales are usually items the seller has replaced with more sophisticated equipment or items that no longer hold any interest. Therefore it should not surprise us that the 8 bit computers are being sold for such low prices. One of the pitfalls of buying someone else's equipment is not knowing what sort of condition they are in. It is advisable to request a demonstration or if that is not possible at least try to talk to the person who was using the equipment. Even after all that, when you get it home it still may not work, or perform the way it should.

I met a gentleman at one of these sales who had bought a C64 and a 1541 disk drive. Later, when he got home and tried the system, he found he had trouble with the drive. He called and asked if I could take a look at it.

The first thing I do with a new drive is to clean the head. A dirty head can prevent the drive from reading the disk (the head can pick up a lot of dirt just sitting around doing nothing in the basement or garage). With the head clean, use a test program to check head alignment. A program like DRIVELINE found on LOADSTAR, issue #109, will do fine.

DRIVELINE, like all such programs, requires a reference disk. In this case a reference disk is any disk where the tracks are located at a precise distance from the centre, most any commercial disk would fit the bill, including the original LOADSTAR disk. DRIVELINE allows you to move up and down the tracks, as well as the half tracks. Pressing "A" causes the program to do an auto test and report. The head is moved from track 18 to track 14 and then to track 17.5, where it will do 50 read tests, then the head will move to track 21 and back to track 17.5 and do another 50 read tests(this checks play in the head movement,in 2 direction as well as checking alignment). When finished, the screen will display a report showing the number of read errors on the upper and lower tracks, followed by an error percentage. The screen also indicates what is an acceptable value.

LOADSTAR recommends getting a second opinion. To this end I decided to use a program I bought last fall and never got around to using. The program, from FREE SPIRIT SOFTWARE INC., is called "1541/1571 DRIVE ALIGNMENT" and is still available from SOFTWARE SUPPORT INTERNATIONAL.

FREE SPIRIT's program works basically the same way as LOADSTAR's. However, FREE SPIRIT's does not have an auto check/report feature. It does have speed check and head bump tests. The program also has instructions for all 3 tests through help screens. Its reference disk is referred to as the "calibration disk" found on the back side of the disk. Along with the disk there is a small booklet which describes how to remove the case and get access to the stepper motor.

To align a drive with either program running, loosen screws to stepper motor (not too loose),turn stepper motor (very small turns) until there is no, or very few, error messages. Then step the head up and down the tracks as before. Repeat this procedure until the head can be moved up and down the tracks several times without having to re-adjust the motor. Tighten motor screws and for peace of mind use the other program to verify the alignment.

That is the way it should have gone, but after thinking I had aligned it correctly 3 times, there was still a problem. It appears I had done the alignment correctly, but what was happening was the disk was not being held properly by the hub. Each time the disk moved it would appear to be out of alignment again. The drive's latch was a turn latch rather then a pop latch. This type is known to have problems with a press pin coming loose. Once the latch was fixed ,the hub would now hold the disk correctly, allowing me to align the drive one last time.

This may seem to be a long way to get a message across, but it does serve the purpose. Far too often we look only at the small picture, when we should keep the large picture in mind. In my case I was looking at the heart of the drive, when all I needed to do was to look more closely at a problem that I had already seen.

GEOS Applications: What's Out There?

- (c) 1993 by Mozart -

Released to the public domain provided it is distributed complete and unchanged. Neither Mozart or Vision are liable or responsible for damages incurred by unauthorized versions. Part 3 of a continuing series.

I have been asked many times by interested users: 'Now that I have GEOS up and running, what can I do with it?' Well, the answer to that can be put simply - LOTS! You have just entered the wonderful world of GEOS and there are enough things to do out there to keep you going for many years. I myself have lots of things on the go and hope to live long enough to pursue all of them!

Definition time again: just what IS a GEOS application program? BASIC has 6 filetypes: DEL, SEQ, PRG, USR, REL and CBM. To BASIC, all GEOS files are type USR, but the GEOS system supports 15 filetypes. An application can be defined as an independent program that allows a user to create, change, display, and save data. Normal applications are stand alone programs having their own data formats that refuse to relate to anything else. The abundance of

C64 word processors, HiRes graphics editors, SEQ file editors and music systems simply don't talk to each other. If you find a great piece of music written using MusicStudio and you want to play it as a SID file, you must write a conversion program and THAT needs intimate knowledge of the formats involved. This information is normally not readily available.

GEOS is NOT like that! You can put geoPaint scraps in a geoWrite document. You can reconvert using Paint-Drivers into a geoPaint page for detailed editing. geoWrite files are standard input for geoPublish and geo-Programmer! geoPaint scraps can be used in geoFile and geoPublish. You have at your beck and call a complete system where applications, while independent of each other, can input as data each other's files. This article is meant to be an overview of the major applications found in GEOS. Hundreds of smaller but no less useful applications abound - you just have to find them!

geoPaint
The most famous of C64 programs! It allows you to create and manipulate in color HiRes graphics images using a basic palette of 32 patterns and 32 types of brushes. You can create overlay effects using special constraining and measurement tools. Adding text or working on the pixel level is easy. You can stretch an image to different proportions and input/output graphics scraps as well as complete geoPaint documents. Because of the hardware constraints of the C64, color is restricted to the boundaries of 8x8 pixel groups called cards, limiting the color resolution in each card to one paint color and one canvas color. This may not be a limitation if the graphics artist places their colors carefully - as in the Lobster pic created as a demo by Berkeley Softworks. Color bleeding can also be a problem, but this too can be used to create spectacular special effects. The maximum size of a geo-Paint file is an 8 1/2 by 11 inch page.

geoWrite
The second most famous of all C64 programs! A professional style word processor, it opens the world of fonts, styles, and point-size to the C64. You can create and modify headers and footers. You can add pagination and the date/time to your work. A search and replace function exists. You can import geoWrite text and geoPaint graphics from other files as scraps. Moving or copying large blocks of text is easy! Formatting can be done using the ruler. Set up right and left margins and paragraph indentation. Tab stops and decimal tabs can be used and you have control over line spacing. Getting hardcopy is a snap! With the choice of printer drivers that GEOS offers, it should be easy to find one that exactly or closely matches your printer. Now with the new High Quality drivers from CMD plus their Letter Quality system, printer output can equal MAC or IBM quality! A geoPaint file can hold up to 62 pages.

geoSpell
The last of the famous trinity of GEOS applications! geoSpell contains a dictionary of over 35,000 words all in one 96K data file on ONE 1541 disk! Check for misspelled words in any version of geoWrite; search for words; create and alter personal dictionaries; delete, change and search for words in personal dictionaries - this is all possible. Your personal dictionary can be used alongside the geoDictionary during the spell-check process - but only one! I have two personal dictionaries: one for musical terms and one containing names, slang, or general abbreviations. Page breaks should be put in after every geoWrite page as geoSpell checks your document on a page by page basis. If you forget, geoSpell will overflow its buffer and ignore that part of the document. All in all though, a very useful application!

geoPublish
Desktop publishing for the C64! A huge and complicated program, it is better to purchase it outright and get the manual. Create the text in geo-Write and the graphics using geoPaint - then open a geoPublish document. Master Pages mode is used to create anything you need to have duplicated on all pages. Page Layout and Page Graphics modes are the file import modes. In addition to one or two Master Pages, a geoPublish document consists of up to 16 pages. If your document is longer, pagination can be resumed in the next file.

geoFile
The GEOS answer to database needs. You can store, recall, manipulate and analyse all kinds of information! Do you know that most composers of Classical music died on Fridays? Maybe there IS something about Fridays after all! This program stores and organizes information in 'forms' that you design any way you want right on the screen. One 'master form' contains all the information in your file, but you can also create up to 15 'sub-layouts' that view subsets of that information in various ways. The information stored is limited in size only by your disk

medium. geoFile is fully compatible with geoWrite, geoPaint, geoMerge and geoCalc.

geoProgrammer
This is definitely the most professional assembler I've ever seen! Consisting of three separate programs: geoAssemble, geoLinker and geo-Debugger, this system mimics the Unix based assembler that Berkeley Softworks used to develop GEOS software. Complete GEOS constants, macros, routines and memory map included as geoWrite files are an invaluable aid to the aspiring GEOS programmer. This manual is even thicker than the GEOS2 manual and is a must have if you wish to create your own GEOS applications.

geoBasic
Develop GEOS applications from BASIC. You also get a menu editor and a bitmap utility. Edit dialog boxes and define icons ... edit sprites! Includes geoBasic debugger for when

things do not compute!

geoCalc
The GEOS spreadsheet. Many cells and lots of complex calculations will keep you happy for a long time! I've never had occasion to use it.

TextGrabber
Import text from other C64 word processors. EasyScript, SpeedScript, PaperClip, and WordWriter can all be safely converted along with three generic formats. Use #3 for conversion of normal C64 SEQ files to geoWrite.

GraphicsGrabber
Import graphics from PrintMaster, PrintShop, and NewsRoom. Can output scraps or geoPaint documents.

A MOBILE 64 WITH DISK DRIVE

This article is being composed in a moving vehicle as my wife drives along route 70 just east of Albaline, Kansas. That's right! A 64 WITH WHEELS ON IT! This wondrous feat is made possible by a gadget called a Power Inverter. The inverter changes the vehicle's 12 volts DC into 120 volt AC and seems to be sufficiently filtered so that the screen is clean and clear.

No, the inverter did not cost several hundred dollars; it was $79.99 (it's now ten bucks cheaper) plus shipping and is available from a mail order catalogue house called Damark. It is Item #B-4950-214026, 'DC to AC Power Converter'. For more information and a catalogue, call 1-800-729-9000.

This unit is capable of 140 watts of continuous power output. The 64 power supply draws 40 watts and the 1581 power supply draws 30 watts, which is only 50% of the available output. If you have a different configuration of equipment, check the power draw of your equipment.

Ohm's Law, simply stated for our needs, tells us that volts times amps equals watts. For example, 120 volts at 0.25 amps = 30 watts. Just total up the watts drawn by each device plugged in to find the total circuit draw.The system as I have it connected is as follows: my older style round cased 64 with a Warp Speed fast load cartridge, a 1581 disk drive (more on this later), the 12 v DC to 120 v AC converter, a 9 inch color TV that operated on 12 v DC, and the necessary connecting cables.

The 1581 drive was chosen for its compact size and extreme versatility and capacity. One of those 3-inch disks will hold about five of the 5-inch single sided disks. By using partitions, the full capacity of the 3-inch disk is fully utilized.

The monitor is a 9-inch color Zenith TV which operates on 12 v DC. The only challenge to the entire setup is the actual typing. The volume of "typos" tends to run high because the keyboard is moving around slightly with the swaying of the vehicle, which in this case is a Dodge Carivan.

So what purpose does this mobile operation serve? I plan to retire at the end of December 92 and we plan to do a good bit of travelling. I do love to keep a travel log and this is not always convenient to do while travelling. I have taken the 64 with us on camping trips and into motels where 120 volt power would not be available. We do like to camp and this is part of the reason for the 12 volt TV.

This set up has saved me approximately $1,800.00 and the problem of switching to IBM format laptop system. Some folks call that an "upgrade". I have had the privilege of using some IBM stuff and I must say that, in its earlier versions, it is no upgrade at all. I do like the Commodore operating system. If one uses a fast load cartridge, the C= is just as quick to load as any IBM system that I have used. To be honest, I have only used an IBM with version 3.3 of MS-DOS. That system is now in the 5.2 and higher revisions and the 386/486 33 MHz systems will knock your socks off with their speed ... and price.

I have had this system running now for about 2 hours and so far no problems have surfaced. I am quite delighted. 3,000 miles later, I am still delighted.

There are a couple of things which one will need if they are to duplicate this mobile 64 system. They are available at K-Mart or practically any auto parts store.

A Y-connector for the cigarette lighter socket, and a 10 foot extension cord for the cigarette lighter power socket (we need to keep the disk drive away from the monitor).

The signal cord from the computer to the monitor should be totally shielded and shielded connectors used rather than the TV/Game switch and flat 300 ohm antenna wire. If not, there will be considerable interference from the vehicle's ignition system induced and the screen will be hard to read. But, by using the shielded connectors, the video is excellent.

Pick up an adaptor from Radio Shack that will connect the RCA video output from the 64 to a "cable TV type" connection. The Radio Shack part number is 278-255 ("Adaptor, Male F to Female Phono Plug"). It sells for $1.29.

I am using the TV laying on its back so a right angle F connector is handy too: the Radio Shack part number is 278-221 and is also $1.29.Technical information on the Power Converter is available from DOC-TECH International Corporation, P.O. Box 7944, Amarillo, Texas 79114-7944. If I can give you more information, send me your questions along with a self addressed, stamped envelope and I will rattle on for hours.

MOBILE 64 & 1541, PART 2
In a previous article I told about how I put wheels on my C64, using it in a moving vehicle. I have put at least 6,000 miles on my computer and

1581 disk drive and have had no problems at all, but a great deal of pleasure. It is a wonderful time saver to be able to use the computer while riding in a car! Since then, I have gathered a good deal more information along these lines.

There is an Amateur Radio club in Pennsylvania which has designed 12 v DC power supplies for both the C64 and the 1541 disk drive (not the 1541-II). The 1541 has the power supply built right into the disk drive itself; the 1541-II has a separate power supply.

The unit which this club offers is a plug-in unit which requires no modification to the 64. This is nice and provides the ability to use the C64 on either 12 v DC or 120 v AC power.

On the newer C64s there is a resistor which should be added to the clock circuit. This is a simple job or your favourite TV repairman could do the job for you very easily. Their power supply is available in either a kit form or fully assembled and tested.

Instructions for converting the 1541 disk drive to 12 v DC operation is well described and a schematic is provided. The change incorporates a switch so that the drive can be used either on 12 v DC or 120 v AC power. The club will provide the needed parts in a kit form (1 resistor and a switch).

This same Amateur Radio club also has information and a kit which will enable the C64 to be used as a controller in "Packet Radio". They offer manuals, a relay kit, decoder kit, repeater controller, and the two 12 v DC power supplied discussed above. All of these items can also be obtained as assembled and tested units.

For complete information send 52 cents on a self addressed stamped envelope to:

Crawford Amateur Radio Society
P.O. Box 653
Meadville, PA 16335

Bob Petersmark
P.O. Box 1
Rodney, MI 49342

Both parts reprinted from the February 1993 issue of the Lane County Commodore User Group newsletter.

WHAT'S THE POINTZ*

(Or, Making Sense of Type Sizes)

A point is a unit of measure (1/72"). The point size of a font (a full set of letters, numbers, punctuation, and special characters) is the measurement of the height of the letters from the top of the highest character to the bottom of the descenders plus any space needed to make the type legible when it is used single spaced.

Since a point is 1/72", then a line of 12 point type is 12/72", or 1/6" high. This allows 66 lines from top to bottom on a standard 8 1/2" x 11" page. This works out nicely with dot matrix printers calibrated vertically in 1/72" increments. (C= 1515, 1525, Tandy 1101, and a few others are 1/69".)

Dot matrix printers have built-in fonts (also known as native fonts) that are used for non-graphic printing. Older printers may have only one font, but even inexpensive printers manufactured in the last five years have multiple fonts. They can produce 12-point type called Pica at 10 characters per inch (CPI). 10-point type called Elite at 12 CPI. 7 point is called condensed at 17 CPI. Inexpensive printers usually keep the 1/6" vertical line spacing, so although the font is smaller, it is actually 12 point with the printing smaller and closer horizontally. This is why when discussing native fonts on dot matrix printers it is customary to refer to CPI instead of point size.

Horizontal measurements of type sizes is also figured in points. For some reason the manufacturers of dot matrix printers ignored this fact when they designed their printers. Most printers are simply designed to print at 10 CPI with 8 dots per character (except for some Commodore and other odd ball printers that use 60 dots per inch). Commodore tried to remedy the situation with the 1526 and the 802 which at 72 dots per inch, printed one dot per point. However, by then, the situation was so confused with the firmly entrenched Epson standard of 80 dots per inch that the 72 DPI printers were a commercial disaster.

To confuse matters more, all current printers can print in high resolution mode meaning that they can index less then a full point vertically and less than 1/80" horizontally. But this is not the fix for the non standard horizontal indexing because there is no reasonable denominator between 1/72" (the size of a point) and the 1/80", the printer standard. The simple solution is to ignore the horizontal points and use the built in native fonts as is, or using proportional graphic fonts as in GEOS, Word Writer, etc., call the 1/80" divisions pixels and be done with it.

With the increasing demand for high resolution output and camera ready masters for desktop publishing, computerists have abandoned the use of native fonts for all but rudimentary tasks and have turned to outline graphics and solid graphic fonts like those used in Geos, Word Writer, and Newsroom. The big advantage of graphics fonts is that they are scaleable (can be blown up or reduced in size). Output font sizes of 600 points are not uncommon.

* Original article, "Meeting 64/128 Users Through The Mail" by Fred Knerr.Reference material by Phil Anderson.

Reprinted from article by Mike Todd in September 1994 issue of Input Output published by the Arizona Commodore Users Group.

TO THE MEMBERS:

Notice is hereby given that the 1994 Annual General Meeting of the members of TPUG (Toronto Pet Users Group Inc.) will be held in York Public Library Main Branch, downstairs, 1745 Eglinton Avenue West, York, on Tuesday January 17th, 1995 at 7:30 pm sharp for the purpose of :

1. receiving the Report of the Directors, including the financial statement for the year ending June 30, 1994, and the final financial statements for the years ending June 30, 1991, June 30, 1992, and June 30, 1993,
2. election of directors,
3. consideration of motions affecting the Bylaws, and
4. transacting such business as may properly come before the meeting.

Normally elected directors' terms expire at the second Annual General Meeting after their election.

The following directors' terms continue for another year:

Al Farquharson
Tom Luff
Ian McIntosh
Dug Rodger

The following have been nominated for election to the Board of Directors :

Carl Bannenberg
Ernie Chorny
John Easton
Paul Kreppenhofer
George Skinner
George Turek

Others may be nominated at the meeting or by proxy. You may vote for as many candidates as there are vacancies.

Under the current bylaws, the maximum number of directors is 12 and the number of vacancies is expected to be 8 - 6 for 2 year terms and 2 for 1 year terms.

The new executive will be chosen by the new Board, traditionally at a special Board Meeting immediately after or during a recess of the Annual General Meeting.

You must have a current membership on the date of the meeting to vote at it or any adjournment thereof. Renewals will be accepted at the start of the meeting.

You are entitled and encouraged to vote either in person or by proxy.

If you are unable to attend in person and wish to vote, you must sign, date, and return the instrument of proxy below (or a copy of it) to TPUG's mailing address at least one week before the meeting, or to the Secretary before the start of the meeting. You may optionally attach voting instructions to the proxy form.

NOTE: The following 'notice of motion' has been received by your exectuive. This motion will be voted upon at the Annual General Meeting.

1.That the annual membership fee for those who are not residents of Canada or the USA be reduced from US$30 to US$25.
2.That the maximum number of directors be reduced from 12 to 10.
3.That (with reference to note 2) the Board of Directors quorum be reduced from 5 to 4.

By Order of the Board of Directors, TPUG

(signed)

Ernie Chorny
November 10th, 1994

PROXY

The undersigned, being a current member of TPUG (Toronto Pet Users Group Inc.), hereby appoints _____ as proxy to vote for the undersigned at the Annual General Meeting on January 17th, 1995 and at any adjournments thereof.

Dated_____, 1994 Voting Instructions

Signed_____

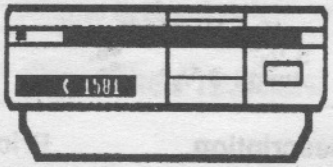
Name (print)_____

Member Number_____

This instrument of proxy is only valid if it or a copy is signed and dated and either mailed to TPUG's business address and received at least one week before the meeting, or given to the Secretary before the start of the meeting.

For Sale From TPUG

(Your Membership Dollars At Work)



New Commodore 1581

Floppy Disk Drives

Members.....$70.00

(complete with power supply,manual,demo disk,& cable)

Non-Members add membership fee

as per Disk Order Form,found on the rear panel of News Letter

5.25" Blank Disks (DSDD)

KAO brand,box of 10.....$4.00 (limit of 80 disks)

Bulk disks,pkg. of 50...$16.00 (no labels or sleeves) (limit of 80 disks)

3.5" Blank Disks (DSDD)

KAO or similar 10 disks .$5.00 each (no labels) (limit of 80 disks)

Amiga Mouse Pads..$2.00

PageSetter.....$5.00 (desk top pub. for the Amiga)

Commodore 1581 CP/M disk ver3.0 $13.50

128 Tutorial & Demo Disk $5.00

Quantities are limited - Sales restricted to Members

Please add 10% for shipping and handling-Ont. add PST

All prices listed in Canadian funds

TPUG Toronto Pet Users Group, Inc. Order Form

5334 Yonge Street, Box #116 Willowdale, Ontario M2N 6M2 (416) 253-9637

Membership Prices

Canada $25. USA US$25.

International US$30.

Disk Prices

Members		Non-Members	
5 1/4"	$3.	5 1/4"	$6.
Amiga 3 1/2"	$4.	Amiga 3 1/2"	$8.

	Disk Number / Code	Disk Name / Description	Price
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Attach additional sheets if necessary.

Prices subject to change without notice.

Add Postage And Handling

Canada & USA	1 to 5 disks $1.00
	over 5 disks $2.00
Overseas	1 to 5 disks . . . . . US$2.00
	over 5 disks . . . . . US$3.00

Sub-Total

Provincial Sales Tax - Ontario residents add 8% - We do not charge GST

Membership / Membership Renewal

Total (USA and International orders please pay in US$.

PLEASE PRINT ALL INFORMATION

Name

Address

City/Town/PO

Province/State

Country

Postal/Zip Code

Home Phone

Business Phone

TPUG Membership #

DISK FORMAT ❑ 1541/1571/4040 ❑ PET 8050 ❑ Amiga ❑ CP/M ❑ MS-DOS

PAID BY ❑ Cash (Do not mail cash)

❑ Cheque (Payable to *TPUG Inc.*)

❑ Money Order (Payable to *TPUG Inc.*)

❑ MasterCard Card #

❑ VISA Credit Card Expiry Date

TPUG is not liable for any damages that may result either directly, or indirectly, from the use of the software on these disks. Most of these products are Public Domain or Shareware, and ownership cannot be assumed.

SIGNATURE

91/12/23

(If joining or renewing, please include a list of your equipment and special interests.)