

# TPUG Newsletter

Views and News of Toronto Pet Users Group, Inc.

P.O. Box 48565, 3605 Lakeshore Blvd. W., Etobicoke, Ontario, M8W 4Y6

(416) 253-9637

Volume 6, Number 8

Winter 1999/2000

## From the President -

Because it is after the fact, we of the TPUG Board of Directors hope you all had a nice Happy Holiday and we wish only the best for you and your loved ones in the New Year. Here it is the new millennium, the year 2000 and our members, along with many others are still using their PET, VIC-20, C64, C128 and AMIGA computers. Our treasurer George Turek has been doing an excellent job maintaining the club's account books using his PET computer. I have always felt that despite the age of a computer, if it can still do the task at hand, then it is a useful and functional tool which need not be discarded.

TPUG's calendar is off to an early start. In January we begin the year with our Annual General Meeting (AGM), where you the membership get a summation of the board's activity and you are given an opportunity to voice your opinion and ask questions. Changes to the board of directors may also take place there. All members and interested parties are invited but only paid up members may vote. This is *Your Club* come out and get involved. It will be at the Alderwood United Church, 44 Delma Dr., Thursday January 27, 2000 at 8:00 PM.

The show calendar starts off with the Computer Flea Market Sunday February 6 between 10:00 AM and

4:00PM at the Queensway Lions Centre on Lions Court (east of Kipling off of the Queensway). There will be 100 tables set up will all kinds of second hand and some new computer products (mostly MS-DOS machines). Admission is only \$3.00.

Computer Fest 2000 is February 11 - 13, 2000. This one is being held at the Automotive Building in the CNE. Starts at 10:00 AM each day until 9:00 PM Friday and 6:00 PM Saturday and Sunday. This show is a mixture of new and used computer equipment. Admission is about \$9.00 but \$1.00 off coupons are usually available in the newspaper or sometimes from exhibitors (like TPUG).

TPUG's next swapmeet will be Saturday April 8, between 11:00 AM and 3:00 PM at Alderwood United Church, 44 Delma Dr, in Etobicoke. The next Computer Fest 2000 will be April 14 - 16 at the International Centre. TPUG will be at all the above shows.

### Hopefully the Last Word on the Y2K Bug:

The Y2K bug is a left over from the old days of programming with limited memory. To save space the year counting routine adjusted only the last 2 digits of the year and inserted the '19' in front only when printing the date.

.... continued on page 11

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  
and/or their assignees.

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## Member Information

Voice Info (416) 253-9637

Please leave a message

e-mail : [tpug@icomm.ca](mailto:tpug@icomm.ca)

## Membership Rates

Canada ..... \$25  
USA ..... US \$25  
International ..... US \$25

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Webmaster ..... Ian McIntosh

## Newsletter

Editor John Easton (416) 251-1511  
..... [jeaston@idirect.com](mailto:jeaston@idirect.com)

## Meeting Schedule

**Amiga East:** Second Tuesday of the month.

Contact - John Buller (416) 762-8361

7:30 pm at Videolink - 2284 Gerrard Street East, Scarborough.  
phone (416) 690-1690

*TPUG acknowledges the generous support of Videolink's Bruce Richardson*

**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 - Tim Luff (905) 812-5231

or Ernie Chorny(905) 279-2730

## TPUG on the Internet:

<http://www.icomm.ca/tpug>

e-mail: [tpug@icomm.ca](mailto:tpug@icomm.ca)



Well, what do you know? Another deadline, another Newsletter ... and once again I have too much content for the pages. Still no room for our 'inventory' clearout - (if you're looking for something specific, why not enquire - we probably can come close).

I've taken space this issue to pass on pertinent 'guest-editorial' comment from **K.Dale Sidebottom**, editor of LUCKY REPORT (Louisville, KY) plus an update on **Maurice Randall's** efforts towards creating real Web Browser for our favourite machines.

Carefully check out all the dates mentioned in our President's column, this first quarter of the new year looks to be a busy one for activity.

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*Articles, letters, tips, questions, art, etc. are welcome. Send hardcopy or disks "Attn: TPUG Newsletter", or use Internet e-mail.*

*Advertisements are also welcome. Member's small ads are free. Commercial ads are \$50 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 proprietary (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.

INSTANT 1581 DRIVE KIT (Just add a standard PC floppy drive)..... \$49.95  
Includes Upper & lower Shell with logic board & faceplate, a serial cord and power supply box.

POWER SUPPLY ONLY (1581/41-II) ..... \$24.95  
UPPER CASE ONLY ..... \$9.95  
LOWER CASE ONLY ..... \$9.95  
1581 LOGIC BOARD ONLY ..... \$14.95  
SERIAL CABLE ONLY ..... \$8.95

-OPTIONAL:  
1581 JIFFYDOS ROM....add ..... \$32.95  
10% shipping (15% USA)  
Taxes are extra for Ontario and Canada residents (PST/GST)  
Mail cheque or Money order to:  
JP PBM Products By Mail  
Box 60515, Jane/Wilson P/O  
Downsview Ontario, M3L 1B0

Note: Dealers and User Groups Welcome!

**TPUG News**

*Annual General Meeting January 27, 2000, 8p.m. - Alderwood United Church*

*Spring SwapMeet - same location, Saturday, April 8, 11to 3*

**Classified**

**Another member-service!**

**For Sale:**

2 - C64s, 2 - 1541 disk drives, colour monitors, joysticks, printers, and printer interfaces.  
Call Tom Luff (416)503-0753.

**Miscellaneous Commodore Hardware and Software**

is available from :

D.L. Johansen  
Box 912, Troy, MT, 59935

**COMMODORE GAZETTE**

Magazine-on-Disk - \$25.00/year  
Christopher Ryan  
5296 Devonshire Rd.  
Detroit, MI, 48224-3233  
(313) 882-0811 (4thru 10 PM EST)  
<cmdrgazette@webtv.net>  
<http://sony.inergy.com/angelman/>

**Close-Out Sale** (limited quantities) from G&G Electronics manufacturers of 'ham radio/short wave' interfaces for your Commodore computer. (Add \$8.00 for S&H to Canada, all funds are US Dollars)

**SWL** - receive only cartridge for CW and RTTY for C64/128. \$29.95

**AIR-1** - complete interface (send and receive) cartridge for VIC-20, \$39.95 (was \$279)

**Morse Coach** - teaching and testing program for Morse Code in a cartridge for C64/128, \$19.95

Contact Jeff at 8524 Dakota Drive, Gaithersburg, MD 20877.  
phone (301)258-7373  
e-mail <k3dua@erols.com>

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

We are pleased to offer this cartridge regularly \$89.95. For a limited time SAVE \$15 WITH THIS AD. UNTIL June 30/99.

**CURRENT Commodore Club 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 JANE/WILSON P/O		\$74.95

* C= Club Members (-\$5)	- \$
32K RAM add \$19	+\$
subtotal	\$
+7.5% Freight (15% USA)	\$
Subtotal	\$
Ontario Res add 8% PST	+\$
Canada Res add 7% GST	+\$
<b>TOTAL</b>	<b>\$</b>

All Prices Are Cdn. Funds  
20% Exchange On US Funds  
Send \$2 for a catalogue  
on disk (1541 format) (CDN FUNDS)

In the last newsletter I explained some concepts in machine language as well as assembly language. Before you continue, it would be beneficial for you have that article with you for reference. Contact TPUG at the address on the front of this newsletter and for \$3.00, we will send you a copy of the last newsletter or any other TPUG newsletter you ask for. The information in these articles are to pique your interest and I recommend finding other sources (books) on the information, just so you can see where I screwed up, and get more details. A list of books I used as reference sources will be at the end of the article.

### Machine Language/Assembly Language: Part 2

As mentioned in my last article, Machine Language is the language used by the computer's hardware and Assembly Language is used in an Assembler to generate machine code programs. Assembly Language is also easily understood and recognizable by the programmer.

Assembly language uses a mnemonic and the syntax of the addressing mode to represent a specific machine code instruction. The following are some of the more frequently used mnemonics and what they do:

```
LDA STA CMP DEC INC
LDX STX CPX DEX INX
LDY STY CPY DEY INY
```

LDA, STA and CMP affect the accumulator register, while DEC and INC affect memory locations. All the above mnemonics which end with X or Y affect the registers of the same name.(eg. LDX affects the X-register and DEY affects the Y-register)

LDA, LDX, and LDY are all mnemonics which can be used to load the indicated register with a specific value, or the contents of a memory location depending on the addressing mode used and the operand. (Flags affected N,Z)

STA, STX and STY are all mnemonics which store the contents of the indicated register in a memory location specified by the combination of the operand and the addressing mode. (Flags affected - none)

CMP, CPX and CPY compare a specific number or the contents of a memory location to the contents of the register specified in the mnemonic and the result affects the N, C and Z flags in the Processor Status Register. These mnemonics are usually followed by Branch mnemonics. (Flags affected N,C,Z)

INC, INX and INY will increment a specified memory location (INC) or a register (X or Y) by one. This mnemonic does not affect the Carry flag of the processor status register when the contents \$FF roll over to \$00. (Flags affected N,Z)

DEC, DEX and DEY will decrement a specified memory location (DEC) or a register (X or Y) by one. Does not affect the carry flag. (Flags affected N,Z)

BCC, BCS, BEQ, BMI, BNE, BPL, BVC, BVS are all branch mnemonics. (Flags affected -none)

BCC - executes a branch if the carry flag is clear (=0).

BCS - executes a branch if the carry flag is set (=1).

BEQ - executes a branch if the zero flag is set (=1).

BMI - executes a branch if the N flag is set (=1).

BNE - executes a branch if the zero flag is clear (=0).

BPL - executes a branch if the N flag is clear (=0).

BVC - executes a branch if the overflow (V) flag is clear (=0).

BVS - executes a branch if the overflow (V) flag is set (=1).

The branch instruction does not use a memory address as an operand. Branch instructions use Relative addressing mode only, which uses an offset value to direct the jump. It is first necessary to understand that at the time the branch is read the program pointer is pointing at the next memory address immediately following the offset byte. The offset byte is a single byte used to jump the program anywhere between -128 (backwards) to +127 (forwards) memory addresses relative to the first memory address after the offset byte (only when the branch condition is met). CORRECTION: in the last newsletter I said the branch instruction would require 3 bytes, the correction is it would only take 2 bytes. (so I do make mistakes)

A sign number takes the most significant bit (MSB) and assumes it as a negative value. In the above situation the 7th bit is given a negative weight (-2E7 or -128) and all the other bits are added to the negative bit. The operand 203 (11001011 binary) as an offset for a branch operand would be expressed as:  $-128+64+8+2+1 = -53$ :for a jump 53 memory addresses backwards from the memory address just after the branch's operand byte. The offset number is only negative if the 7th bit is set with a one. If the 7th bit is zero the offset will be a positive number or zero. It is

necessary to adjust the offset of a branch whenever you add or delete bytes in the range affecting the branch (-128 to +127 memory addresses). For more information on this subject see the reference material listed at the end of the article or review the article 'Representing Signed Numbers in Binary Arithmetic' by John Buller in the Volume 6, Number 1 TPUG Newsletter (page 6).

Branch instructions read and react to flag conditions but do not alter them. Each branch instruction checks a specific bit, called a flag, in the Processor Status Register (also referred to as the status register or the P register.). Bit 0 is the carry (C) flag which gets set when a number becomes greater than 255. Bit 1 is the zero (Z) flag which gets set when an operation, like compare (CMP), results in a zero. Bit 2 is the Interrupt Disable (I) flag used to allow maskable interrupts when bit 2 is cleared (=0). Bit 3 is the Decimal Mode (D) flag which allows the use of Binary-Coded-Decimals (BCD) when this bit is set. Bit 4, the Break (B) flag is set by the execution of the BRK instruction. Used to end a program or stop a program for debugging. Bit 5 is an unused bit. Bit 6 is the overflow (V) flag used when signed numbers overflow from the 6th bit to the 7th bit. Sign numbers uses the 7th bit to designate whether the number is negative or positive and the overflow flag acts like a carry flag allowing the program to check for unwanted overflow. Bit 7 is the Negative (N) flag which is set (1) when the result of an operation is negative and cleared when the result of an operation is zero.

Other mnemonics are used to set or clear a flag just before operations are done where you need to test the flag for a branch. These mnemonics are CLC, CLD, CLI, CLV, SEC, SED, and SEI. The CL stands for CLear and the SE stands for SEt while the third character represents the flag in the processor status register affected by the mnemonic.

Some other important mnemonics are as follows:

BRK - breaks the execution of a program which can be helpful when trouble shooting. At the end of an operation BRK can be used to stop the program to allow you to check conditions (eg. flags or contents of memory and registers) to confirm whether that part of the program is running correctly. BRK can be used to terminate a program at its natural end to prevent a loop from forming. We can equate that BRK is very much like END command is in basic.

JMP - jumps the execution of a program to another address specified by the operand in conjunction to the addressing mode. This is similar to the GOTO command of basic.

JSR - jumps the execution of a program to a subroutine which must end with the mnemonic RTS. JSR is like the GOSUB command in basic.

RTS - returns execution, from a subroutine to the memory address just after JSR instruction or back to basic, when basic uses a SYSxxxxx command to jump to a ML subroutine. RTS works in ML like the RETURN command does in basic, it sends the program execution from a subroutine in basic back to the mainstream of a basic program just after the GUSUB command.

The following are transfer mnemonics used to transfer the contents of one register (the second letter) into another register (the third letter). (eg. TAX- Transfers content of the A register into the X register)

TAX, TAY, TSX, TXA, TXS, TYA

The S in the mnemonics above stands for the Stack Pointer. The Stack is a temporary storage in RAM where the operating system temporarily stores information needed for executing the program. For example when a JSR (GOSUB) instruction is encountered the next instruction's memory location is pushed onto the stack, via the stack pointer, and when a RTS (RETURN) at the end of a subroutine is encountered that memory address is pulled from the stack and the execution of the program continues from that address. It is possible for us to store information on the stack, keeping in mind that the last information in must be the first information out and no branching should be done while you have your information on the stack. The premise is you must leave this Location the way you found it, don't leave your garbage there.

PHA, PHP, PLA, PLP are the mnemonics that use the stack pointer.

PHA pushes the content of the accumulator onto the stack.

PLA pulls a byte of information off the stack and deposits it in the accumulator.

PHP pushes the contents of the processor status register on to the stack.

PLP pulls a byte of information off the stack and deposits it in the processor status register.

There are still other mnemonics that I have not described but worth investigating. The last one I will mention is the NOP mnemonic, a time waster. It tells the computer to do nothing for a clock cycle. This is used in delay loops and to synchronize the timing of computer operations.

As I said in the last article, each mnemonic may use only a few of the addressing modes and not one addressing mode is used by all the mnemonics.

### The Kernal

The kernal is a collection of subroutines used by the operating system to reduce the need of memory for storage of the operating system's program. This is done by having one routine written and called by the pro-

gram when needed, rather than having the same code written 10 or more times. There are quite a number of kernal routines, too many to go into detail with in this article but well worth looking into. I will address them in another article.

One kernal routine is called CHROUT and can be called at memory address \$FFD2. Its purpose is to send the contents of the A register to the output channel. The output channel is usually the screen unless it was changed by another kernal routine. For our needs the screen is what we will be using.

*Ed. Note ... The rest of this article will be continued in the next issue of TPUG Newsletter.*

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## Yes, Virginia, There Is Going to Be a Commodore Browser!

*K. Dale Sidebottom*

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Once upon a time (actually it was September 20, 1897), a little girl named Virginia O'Hanion wanted to know if there really was a Santa Claus. So seeking an irrefutable source of knowledge, the eight-year old followed her father's advice and sent a letter asking this question of the New York Sun. It was handed to Francis Church, an editorial writer, whose task it became to frame a reply. He responded with one of the most poignant and popular editorials in newspaper history, "Yes, Virginia, There is a Santa Claus!" Even though it happened over hundred years ago, it still speaks to me today. I cannot imagine that little Virginia prayed to prove the reality of the Jolly Elf any more fervently than 64-lovers have sought to confirm the existence of a Commodore browser. Does any child at Christmas pine for presents any more earnestly than we long for the 64's graphical presence on the internet? Okay, so that's a close call, but you get my point. The search for a Commodore browser has reached such fabled glory that it has often been compared to the quest for the Holy Grail!

Perhaps many of you were as devastated as I was when you read the

recent interview published in the July issue of the LUCKY REPORT. Jermaine Swinton asked Maurice Randall, "What program is giving you the toughest time to write?"

Though he mentioned several things, Maurice concluded by saying: "And for future programming, getting a web browser fully functional will be a big job. The user interface is not a problem at all. The big problem is keeping up with all the changing technologies. Overall, it would be a very big project and I'm not sure if the market is there to compensate for the time that would be involved."

Pardon me for being dense, but do you read 'I'm ready to write a browser!' in any of this? When I read it, I thought any hopes we had of ever getting one were gone. Then my union sent me to Lansing, Michigan, for a two-day training session. While I was in town, I decided to give Maurice a call and treat him to a steak dinner. During the meal, he casually mentioned that he had decided to write a Commodore browser. Suddenly, I was forgetting about food and asking questions. Most puzzling to me was what had happened to the 'a browser

is too big a project for too little compensation' position which he had held recently. His answers were enlightening.

He said that this browser would be built in a manner similar to the way that Linux was developed. Linux, which now challenges Microsoft, is one of the most popular operating systems in the world and is basically free to anyone. It started out as a much simpler program, but the source code was made available to all. Any programmer was allowed to alter it at will. Each improvement was then tested by the originators who implemented the best of them in future upgrades. Thus, for little expense, as full-featured operating system for the internet was formed.

Maurice intends to write the core of the browser program and publish the source code. This allows programmers around the globe to 'fiddle' with it as much as they please. Any features may be added by others and then sent to Maurice for testing. If found worthy, they will then be included in future updates. I think you can see that this is a very workable plan. We should all thank Maurice for his unselfishness. This graphic browser, like his cur-

rent PostPrint II project, nets him no profit. He may sell more WHEELS, but a lot of his genius is being given gratis!

When I quizzed him on exactly why he changed his mind, there were four factors that converged to sway him.

(1) GO64! (the German magazine) had offered a sizable reward for anyone who could create a Commodore browser. Several appeared ready to try, but in the end, there were no takers. Maurice decided that if no one else was working on it, it might be time for him to give it a shot!

(2) The development of WHEELS gave the C64/128 the graphic vehicle it needed for a browser to succeed.

(3) The SuperCPU gave the Commodore the edge needed to navigate the internet graphically. Still, a deep conflict stirred within him. He hesitated to write any program that it would likely require a SuperCPU. Yet the healthy sale of WHEELS convinced him that there were enough of them out there to reward these efforts.

(4) Last of all, you can blame me! While working on PostPrint II (which he is writing for my Laser

Lover's Disk), he began to write a neat little utility called SUPER-TEXT that would be able to edit a text file of any size within a 16 MB partition. Todd Elliott calls it 'ZED 128 on steroids!' Maurice realized that, when he completed this utility, he would have a perfect screen editor for an internet browser, so he might as well make one!

Turn the page, and you can read Maurice Randall's official announcement which he sent out over the internet. Below is his picture which I took while visiting with him in Michigan.

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## What is a Browser?

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In the beginning, the internet used text only. This method worked for over 20 years. However, as the internet became more popular, people wanted to see pictures. Advertisers discovered that how a website looked was as important as what it said! Keep in mind that most users were accustomed to a graphical interface like Windows. Soon a graphical interface for the internet was developed. I believe that Netscape was the first company to really capitalize on this, soon to be followed by Microsoft, of course.

Today, it is still possible to 'surf the 'net' using a text-based system which is called a SHELL account. However, the huge majority of people use Netscape's Navigator or

Microsoft's Internet Explorer. These graphical interfaces for the internet are generally referred to as 'browsers.' Why? Think of browsing in a store. The key is that you are looking, rather than just reading.

The important point here is that Internet Service Providers (ISP's) have been abandoning users of SHELL accounts for several reasons. SHELL accounts require greater security to protect the ISP from cyberspace 'raiders.' Also, it is easier to run only one system for graphical users (and more profitable), than to run two! Last, computers with graphical interfaces do more of the work, putting less strain on the ISP's resources.

This is NOT a problem in Louisville, Kentucky. We are fortunate in that the Kentucky School for the Blind is located here. The blind have no need to see pictures. Their machines are able to capture the text through a SHELL account and then 'read' it out loud to the visually handicapped user. Thus, our access to a SHELL account is safe for the foreseeable future.

However, across the rest of the nation, too many Commodore users are being locked out because their ISP's have stopped servicing SHELL accounts. It is sad, but it also underlines the urgent need for a Commodore browser.

*K. Dale Sidebottom*  
<luckykds@iglou.com>

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## Web Browser Announcement

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It's official... I'm acknowledging the fact that a new web browser is in the works for our 64s and 128s. Production on 'The Wave' will continue.

The entire package will be made available as a free download and may also be freely distributed

through any other means as long as it's not for profit.

This announcement is initially aimed at programmers. I'm looking for participation in this project. I can do the whole thing myself, but it will take too long to get the first release ready. So, I'm asking for

assistance from those who have already created code that can be utilized in this project. Here's the stuff I need mainly:

PPP and SLIP source code  
TCP/IP source code  
JPEG decoding source code  
GIF decoding source code

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*Maurice Randall*

---

Email source code  
Newsgroup source code  
ZIP file decoding

The stuff I'm working on that I don't need any help with is the following:

The main user interface which includes the browser screen display, point and click interface, interaction with other applications, etc.

SwiftLink, T232 code  
Modem and dialer code  
HTML interpreter  
Disk drive and printer code  
New printer drivers for hi-res color output

It might not be too far-fetched to include Java and JavaScript.

I'd guess that about 50-60 percent of my work is completed at this point.

The software and hardware requirements are the following:

64 or 128 computer  
A good color monitor. (128 version will be 80 column only)  
Wheels 64 or Wheels 128 operating system  
SuperCPU with at least 4mb SuperRAM (1mb might be OK but will likely slow the system down due to disk caching)  
Large storage devices will be desired (CMD HD,RL)  
SwiftLink or Turbo232 interface  
14.4 or faster modem

With the participation of many good Commodore programmers, the first working version could be made available much sooner than if I handle all the programming by myself.

Programmers: You don't need to know anything about programming in GEOS or Wheels in order to participate. All I need is good, understandable source code in order to make your programming work

usable in this project. I can take care of transferring all the source code into a usable format for programming in the Wheels environment, as well as coordinating it into the main application.

As soon as a working version is ready, it will be made available for downloading. Work on this project will continue, and as more new features are added, new versions will be made available.

This browser package will be designed to be the easiest web browser to configure and use in the whole computing industry. Anyone who uses my software knows that I hate difficult and complicated programs.

This will be a 'free open source' project also. If anybody wants the source code, it will be available for free downloading from my web site as each version is released. This will help potential programmers to better understand how each aspect works and will encourage more and better participation in this project.

If any programmer has already done any of the aforementioned work or you feel you are capable of any of this work and would like to participate, please email me at: arca93@delphi.com ...and I will list you as a participant on that particular aspect of the project.

I've never asked for any outside help in any project I've ever worked on, but I feel this is an important project that could benefit from the expertise of the many excellent programmers we still have today.

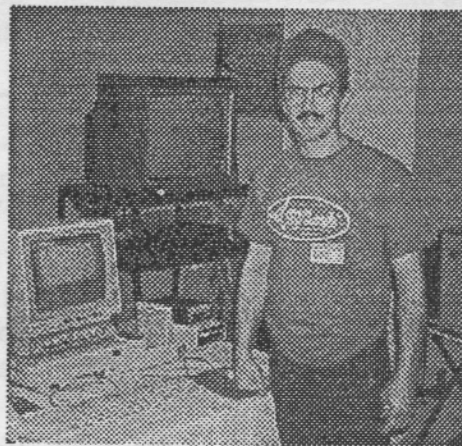
From the beginning of Wheels development, the OS was designed for large projects of this type. The OS isn't very demanding on the CPU and therefore can handle a project such as this, especially with the help of the SCPU. Having a

graphical OS behind the application really eases the pain on programming an application that needs a graphical user interface such as this does. Also, Wheels takes the chore out of programming for the storage devices. From a programmer's AND a user's standpoint, Wheels is a nice environment for a web browser.

There are enough Wheels users, and hopefully enough with SuperCPU's, to make this project worthwhile. If you use Wheels and don't have a SuperCPU, now's the time to get one. Once you've used Wheels at 20mhz, you won't want to go back to 1 or 2mhz. Let's keep CMD in business with this project. Remember when geoFAX first came out? CMD's sales of SwiftLinks boomed. They sold out. They'd assemble another batch and sell those out. They eventually ran out of SwiftLink boards. They then designed their own board and introduced the Turbo232. Let's see if we can keep them busy assembling and supporting SuperCPUs.

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The SCPU II has completed its Maiden Cruise with flying colors.

In an earlier issue [LUCKY REPORT, Feb/Mar'99], I pointed to the stressed-out feeling I often got when using new computer hardware. The SuperCPU for the 128 (which I poetically referred to as the SCPU II) was no exception. In fact, it was a great trial for me.

I discovered that it needed a strong power supply, but mine appeared to be weak. Later I found that I was mistaken. By testing my power supplies with a more accurate voltage tester, I discovered that they were just fine! Something else was wrong.

I learned that they might have less tolerance to electrical problems, so I bought an APC Back-UPS unit. I am glad that I now have one, but it did not correct the problems that I was experiencing with my SuperCPU 128.

Finally, and in desperation, I sent it into CMD for repair. They found that a PLD chip was bad, replaced it for free, and returned it to me after testing it for two weeks to guarantee that there would be no more problems. I have been using my SCPU II for two months now and I haven't had a speck of trouble with

it. Hallelujah!

I recently joined the SCPU mail list in the internet to find out if anyone else was having problems. What I discovered was reassuring ... none of the major topics of discussion were: "How in the heck to I get this \*&%#@ thing to work!" (That's a plus. ;-)

I have tried to research problems with the SCPU II to the best of my ability, and the thing that continues to impress me is that the number of people who did have difficulty were far in the minority. Most users were able to plug them in and just "hit the decks running."

As there does not seem to be any outstanding problem with the SCPU II which has not been resolved, therefore by the (illusionary) powers invested in me by the Worldwide Commodore Community, I move that this superlative peripheral known as the SuperCPU for the 128 be now adopted into the CFFTAA. That is the Commodore's Fine Family of Trusted and Accepted Accessories.

All in favor, raise your right hand.

All opposed, same sign.

Motion passes!!!

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**Model T or LTD?****K. Dale Sidebottom**

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This is an editorial. It contains opinions which will not comfort everyone, but I ask you to give me permission to speak frankly. In return, I promise to print all responsible replies, even though they may disagree with my views. Agreed? Thanks!

Please do not misunderstand me. I am NOT saying that it is wrong to own a Commodore Model T! But in this day and age, almost nobody drives a Model T for daily travel. When you decide to store your Commodore Model T in the garage (or on the top shelf of your closet), what will you buy to replace it? I am simply suggesting that you first consider converting your Model T to a Commodore LTD. Craig Ernster sent me a rare tape of an early *'The Computer Chronicles'*

program. During a recent LUCKY meeting, we were able to view this tape as we tried to guess in what year it was first aired. As best we could tell, it must have been around 1989. It was cool to see interviews with Max Toy, president of Commodore Computers (no joke, that was his name!) and Brian Dougherty, founder of Berkeley Softworks (creators of GEOS). However, I was surprised by the opening remarks of the host, Stewart Cheifet. "I'm playing this new game called TETRIS. The interesting thing about it, it's the first game software sold in the United States written by Russian programmers! But what's really interesting is here's a hot new piece of software. What computer does it come out for first, but Good Ol' 64! This is the

Model T of personal computers, yet people are still buying them. People are still writing software for it. How come?"

His calling our C64 a Model T was not intended as an insult, I hope. In fact, I wrote an article in the April '97 issue of the LUCKY REPORT asking, "Do you own a Model T or an LTD?" Back then, I thought I was being very original. Suddenly, I discover that many others look upon our 8-bitter as a Model T!

This was confirmed again in the cover story written for The New York Times by Jennifer 8. Lee. In her outstanding article, *'Living the 8-Bit Dream in a 32-Bit World,'* she spoke in these terms, "In the realm of digital machines, where today's computer is out of date tomorrow,

there can be great satisfaction in taking a digital Model T out for a spin."

Okay, so we are now aware that LOTS of people think of this computer as a Model T. Is that bad? Only if you are unfamiliar with its history!

The Model T put America on the roads in the same way that the Commodore 64 put American homes into cyberspace. From 1908 to 1927, the Model T outsold its competitors many times over. During this period, Ford produced many variations of the Model T - but though often modified, it never basically changed!

Commodore Business Machines [CBM] did much the same with the C64. For years it dominated the personal computer market, and though it was sometimes modified, it never basically changed. However, the Ford Motor Co. continues to build cars to this day. In recent years, it built a very popular luxury car called the LTD. But we have no such options. CBM isn't going to build us a luxury Commodore. If we want to convert our Model T's into LTD's, then we will have to depend on someone else.

Fortunately for us, a few die-hard fans of the Commodore got together decided and created a company called Creative Micro Designs [CMD]. In fact, one of those Commodore fans recently found himself on the cover of the 'Circuits' section of The New York Times! Way to go, Doug!

These 'fans' (that is, CMD) have for over ten years supported the growth of Commodore with innovative hardware and software. Today, it is their products which enable us to convert our Commodore Model T's into LTD's.

Some of you might think that it would be wiser to move from a Model T to a 'Luxury PC.' If that thought has crossed your mind, you are not the first. However, you may want to rethink that decision in light of current realities.

First of all, that 'Luxury PC' you might yearn for today will ALWAYS BE THERE! It doesn't matter whether you buy it this year, next year, or in five years. There is no hurry... no worry. Whenever you decide that you're ready to shell out the bucks, it will be there. In fact, history shows that the longer you wait, the more 'Bang!' you can get for your buck! (Read 'Boat Anchor'.)

On the other hand, the luxury 'Commodore LTD' you salivated for years ago is available NOW! But who knows for how long? Don't get me wrong. I am not saying that CMD is running out on us. I AM saying that the 'C' in CMD does not stand for 'Charity'. This is what they do to feed their families, folks! If we do not support them, we have NO RIGHT TO GRIPE if they suddenly cease to support us. Fair is fair!

If, then, you decide to join those who have already made this conversion, what accessories will you need? I hope these tips may make your move easier.

First of all, you need an FD-2000. Why? Because the high density 3 1/2" disk is the floppy of choice in today's world of personal computers. In fact, it is the ONLY floppy disk used by most systems today! If we want our Commodores to be able to transfer files back and forth with other platforms, then we need to be able to store and retrieve files from high density floppy disks. The FD-2000 is the ONLY hardware available anywhere in the

world that will allow your Commodore to do this! (Of course, it will also double-duty as a normal 1581 drive.)

The next important item is a hard drive. Remember the funny story about the new user who called a computer tech only to be told, "You are too stupid to own a computer"? Well, if I went into a computer store today and insisted on buying a new computer without a hard drive, that is EXACTLY what the salesperson would be thinking about me, wouldn't it?. Every 'luxury' computer needs a hard drive, and a 'luxury' Commodore is no exception.

Consider as well that a CMD Hard-Drive offers the only way for our Commodores to connect to other SCSI devices, like a CD-ROM drive. SCSI (which stands for Small Computer Systems Interface) allows ANY computer to hook up to ANY SCSI device. In fact, there are two brothers in Germany who have hooked their Commodore up to a SCSI flatbed scanner. To do these things, you must have a SCSI connector, and currently the CMD HardDrive is the only Commodore-compatible device that has it.

The third item you need is 16 megabytes (MB) of RAM. In other words, you need a RAMLink, a SuperCPU, or both! Either will take you to the next level. The RAMLink is the replacement for CBM's REU, only better. It has an independent power source, so it can stay on for as long as you have electricity! (If power is cut off for a short period, a back-up battery is available.) I especially like the way that the RAMLink allows me to go to work in a hurry. It only takes me 5 seconds to boot Wheels. (Of course, I cheat by using a SuperCPU, too). The advantage of the SuperCPU is

simple - SPEED! It runs 20 times faster than the C64 and 10 times faster than the C128. It converts your Commodore's operation into a 'CLICK and BLINK' environment. You just click on the job you want done and then blink. When you open your eyes, your 64's finished and shouting, 'Next!'

I may be exaggerating slightly, but GEOS is especially known for being disk-intensive and S-L-O-W. Try it with a SuperCPU and see if it doesn't become a 'CLICK and BLINK' operating system!

Like the RAMLink, the SuperCPU can hold 16 MB of RAM, but with a difference. Each time you turn your computer off, the memory is erased! Each time you turn your computer on, you will have to reformat and reload your data. Although few programs today know how to access this memory, it will likely be required in highly advanced software in the future, such as JPEG manipulators, CD burners, and Commodore browsers. For this reason, many advanced users feel the need to use the SCPU and RAMLink in combo. Back in January 1999, a fellow editor named Angel Santiago who writes the The Commodore Compendium

wrote in his 'From the Editor column', "I'd like to give another plug to CMD for their SuperCPU and RAMLink enhancers for the Commodore. When I do this newsletter, I don't have to use any of my disk drives, unless I'm using a graphics disk. I just boot up the 64 and I'm ready to go in less time than any other computer that I currently have. My 64 boots up fast! The SuperCPU is little more than a Commodore clone that's 20 times faster with up to 256 times the memory of a C64. The KEY is that it doesn't replace your computer but merely enhances it. Just plug a SuperCPU into the back of your C64/128, and it goes from 'special' to 'spectacular' more quickly and easily than you can connect your TV to your VCR!"

Last, but not least, your Commodore LTD needs an advanced operating system. Very few luxury cars will run on the lowest grade of gas. You need advanced 'fuel' like WHEELS or MP3. Please return with me to that same computer store and that same salesperson, only this time I am going to insist that our computer doesn't need Windows. Again, this salesperson is going to think I'm stupid. It is a graphical

world out there, and we are fortunate to have two great graphical operating systems!

To review, the Commodore LTD requires four things:

- (1) An FD-2000 to read high-density 3 1/2" disks.
- (2) A CMD HardDrive offering vast storage and SCSI access.
- (3) A 16 Mb RAMLink or SuperCPU (the latter's preferred).
- (4) An advanced graphic operating system, Wheels or MP3.

How do you feel? Please write to me and tell me your opinion. Send all replies to LUCKY Editor, P. O. Box 303, New Albany IN 47151-0303, or email me at luckykds@iglou.com.

If it is possible for all of us to agree on ONE THING, may it be this: The Commodore Model T doesn't belong in the closet! [Unless it's a spare.] Remember, whenever you choose to buy a 'Luxury PC,' it will be there. But if you have ever had a desire to upgrade to a Commodore LTD someday, it would be prudent to do it now ... the sooner the better. You will be excited by the greater dimension it will bring to your present system, and you'll quickly learn to love the luxuries!

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... continued from page 1

Since the routine worked so well for a good number of years no one thought about what was going to happen come January 1st, 2000. Now there has been a mass panic to upgrade programs to avoid a crash. So who or what would be affected by this Bug ????

Most people who will be affected are those tied into any date oriented data base, such as banks, utilities and more. These are money related for the most part. But when it comes to money or human safety, CEOs

cannot afford to take any risks because the cost could be in the billions of dollars. Take the banks for an example, every second there is about 10 million dollars in interest alone tied up in electronic transfers (there is likely a whole lot more than that). If the computers crashed New Years Eve for only a couple of minutes there would be a loss of about 1.2 billion dollars in interest alone, never mind the loss of the actual transfer money.

Bottom line, no one in their right mind is going to allow this to hap-

pen. All the banks and other financial institutes as well as all the utilities already have tested for the Y2K bug and have made corrections. All the negative hype is to sell newspapers. At least that is the way I see it. By the time you get this it will already be too late for my opinion to cause any harm. By the way, to the best of my knowledge (which is not very much), the older Commodore computers are not Y2K compliant. I still wish you a Happy Year 00.

Tom Luff

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