TPUG Newsletter

Views and News of Toronto Pet Users Group, Inc.

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Volume 6, Number 7 Fall 1999

From the President -

Some Things You Cannot Fight

Since before 1990 TPUG has had a steady decline of Commodore products and people. As new technology evolves, old technology must take a back seat. In any industry you must compete with the new ways and eventually adopt them or improve on them. Case in point, TPUG started out as a PET computer club and eventually included VIC-20, C64, C128 and all the Amigas. Even though there are competitive Amigas out there and are still being produced by GATEWAY, their numbers are few compared to the other platform - MS DOS machines or as I usually say the BILL GATES Platform or Money pit.

With the progress of technology, 3 types of people have become evident. Type 1 are people who will always upgrade to something bigger and faster as it comes out, just to stay ahead of the next person. Type 2 are those who embrace the newest technology while still hanging on to and using the old technology for nostalgia. Type 3 people are those who are referred to as Die Hards. They see little or no advantage in using the new technology, the old technology does what they need to do. I am one of the third types. I have upgraded from a Dot Matrix Printer to a Bubble Jet Printer, but I do not see any point in spending a lot of hard earned money on a system that always need an upgrade in its operating system, which has described to me by friends as crashing weekly and unfriendly to new installations. Service technicians have been known to say that there is no such thing as Plug & Play in the MS DOS world. There is in the C64 world, it's commonly known as a Cartridge.

Back in the late 80's our membership was a strong 10,000 members. TPUG could afford to print a magazine, but that was more then 10 years ago. Today we are below 100 members. You can see by type 1 people why the numbers have dropped. Add to that the number of type 2 people who likely got too involved in their new systems or the their life style which did not allow enough time for more then one system. But the type 3 people have also been declining. Not to a new computer but unfortunately to something that all of us no matter what type we are must face sooner or later. Time, or more specifically The Grim Reaper, death.

Since I got involved with TPUG, I noticed that almost all of the 'die hards' are kind, helpful people willing to spend the time and share their knowledge with someone less knowledgeable. Ernie McMahon was such a person, unfortunately he passed away in March of this year. We only got word recently, but our sincere condolences go out to his wife and the rest of his family. Ernie is not the first and will not be the last. He and all the rest will always be missed.

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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 and/or their assignees.

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Please leave a message

e-mail : tpug@icomm.ca

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USA ..... US $25
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Webmaster .....Ian McIntosh

Newsletter

Editor John Easton (416) 251-1511
.....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

C-64/128: *Fourth Tuesday of the month.*
Contact - Tom Luff (905) 812-5231
7:30 p.m. in the York Public Library, 1745 Eglinton Ave. W. (just east of Dufferin), in the Auditorium or Story Hour Room.
Note: due to the increased cost of rental for this facility, TPUG has decided to forego meetings in this location. Check with Tom Luff for any new location information.

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*

Well folks, it's been a struggle. Once again your Editor is fighting this here technology barrier, something about insufficient disk cache? Anyhow, we're under the deadline again - this time the new time-slot for our Autumn swap meet.

And with that deadline in mind, my dilemma is how to pass on to you folk the latest list of good things that our executive seem to be wanting to have removed from their storage facility. Tell ya what, since the list won't in any way fit into this issue, perhaps I can attempt to publish the list in later issues, else print an addendum issue? Better yet, I will attempt to post the entire list to our website at the above address. And besides, I've just received another half-dozen pages of current news via the internet which I'd better attempt to pass on to Ian, our Webmaster for distribution.

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 $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.

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

*TPUG **new** Fall Swap Meet*
Saturday, 23October,1999
at Alderwood United Church
44 Delma Drive, Etobicoke
11 a.m. thru 3 p.m.

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

Amiga Top-of-the-Line System -
AMIGA 4000/040 @ 28mhz with 10 mb RAM
Toaster 4000 with full documantation and software on disks
1942 hi-res monitor, keyboard, mouse, cables.
200 mb SCSI with octagon SCSI controller
extra software includes Pixel 3D and Morph Plus.
all for $1900
the Computer and you
Six Points Plaza
5300 Dundas Street West
Etobicoke M8W 1A8
phone (416) 231-0205

See page 10 for a UNIQUE offer on genuine COMMODORE watches!

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 December 31/99.
CURRENT Commodore Club MEMBERS SAVE $5 MORE off the regular price before freight and taxes.

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

SSv5.22 Cartridge	$89.95
save $15 now	- $15.00
	$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	+$_____
TOTAL	$_____

Tom's World

Tom Luff

This is an introduction to familiarize you and get you started into a new experience. Although this is was written for a C64/128, the concepts can be used on any 6502 microprocessor system and should be easy enough to use on other systems with some research. It would be best to use other sources of information with this article to expand your knowledge and better appreciate how things can be done. I for one find it helpful to refer to more then one source of information because different authors explain the same thing in different ways.

During this article all references to assembly language are based on the machine code set of the 6510 microprocessor which is used in the C64.

Machine Language/Assembly Language: Part 1

What is Machine Language and what is Assembly Language??? What do they have to do with my computer?

Anyone familiar with Commodore computers is likely going to know a little about the BASIC language. Most self-taught programmers likely learned to program with BASIC or some other similar language (ie FORTRAN,COBOL...etc). Languages like BASIC, FORTRAN, COBOL and many others are called High Level Languages. They all have a couple of things in common, 1) they were designed for easy use by people, 2) they are not easily used by computers.

High level languages are designed to use symbols that are easily recognizable by the programmers. In BASIC the commands are fashioned after English words. To load a file we use the command LOAD, to save a file we use the command SAVE, other words like RUN, STOP, END, GET, POKE, PRINT are also used, this makes reading a program easy and recognizable. But despite how intelligent we may think our computers are, they cannot understand a command as we see it.

For the computer to understand a command like PRINT, the command must be translated into something simpler. All computers understand only two concepts, ON and OFF. Computers communicate with Binary numbers only. The binary number system, or the base two number system, consist of 1s and 0s only.

The number system we are taught in school is the Base 10 or Decimal number system and uses the symbols 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9. When we read a number like 2584, it is understood that each digit in the number is an expression of ten raised to an exponent.

In the Base 2 number system the same concept exists. For each digit of a base 2 number, that number is expressed as, two raised to an exponent as to its position. (See the comparison below) Because there are only two symbols (1 and 0), numbers can have quite a few digits. When two Base Two numbers are added together you cannot have a 2 so you must carry a 1 to the next left column and add it there.

Base Ten Number 2584		Base Two Number 1101	
2 * 10E3=2000	(10E3= 10*10*10 = 1000)	1 * 2E3=8	(2E3= 2*2*2 =8)
5 * 10E2= 500	(10E2= 10*10 = 100)	1 * 2E2=4	(2E2= 2*2 =4)
8 * 10E1= 80	(10E1= 10 = 10)	0 * 2E1=0	(2E1= 2 =2)
4 * 10E0= 4	(10E0= 1 = 1)	1 * 2E0=1	(2E0= 1 =1)
2584		13	

Add (Base Two)	(Base Ten)
1001	= 9
+ 111	= +7
10000	= 16

It is not important to be a math genius, but it is important to understand that the computer thinks using ONs and OFFs (1s and 0s). The CPU (Central Processing Unit), RAM (Random Access Memory), ROM (Read Only Memory) and other chips in the computer are interconnected to each other by two common busses. The Data Bus is an eight bit (8 digit) bus used to transfer character values (between 0 and 255) in and out of memory or back and forth between input and/or output devices. The keyboard is an input device, the monitor screen is an output device and the diskdrive is input and output device, but they all use the same data bus as well as the same address bus. The address bus is used to indicate where in the computer chips data from the data bus is suppose to go or be gotten from. The data bus and address bus are parallel each other, where one goes so does the other. The address bus is 16 bits wide accessing locations of memory or registers between 0 and 65,535.

Since computer circuits communicate in binary (base 2) it makes it difficult for people to talk to the computer at this level, this is called machine language. Machine language is set of numeric instructions and rules used and understood by all computers. High level languages are translated into routines made up of machine code,which are repetitive and redundant. The biggest advantage to using machine language over say, BASIC, is speed. Machine language can run up to 1000 times faster.

If working in binary (base 2) is difficult to use, is there an easier way to program and get the benefit of speed as in Machine Language?

Hexadecimal numbers (base 16) are often used to represent machine language code. It is easier to recognize and uses only 2 digits for each instruction word. This makes programming faster to read, faster to write and easier to get more program on a single piece of paper. We use symbols 0 to 9 for our every day Decimal number system, for the Hexadecimal number system we again use the symbols 0 through 9 and symbols A,B,C,D,E,F. Remember 0 is used to indicate the absence of units where that digit is.

Example : Decimal number system

------- Number 302

3 * 10E2 or 3*10*10	or 3*100	=300
0 * 10E1 or 0*10	or 0*10	= 0
2 * 10E0 or 2*1	or 2*1	= 2

In the hundreds position of our number we have a 3, or we say we have 3 hundreds. In the ones position there is a 2, or 2 ones. But in our tens position we have nothing or no tens. Zero (0) is a filler used to show importance to the digits to the left of the zero. After all, if you wrote 3 2 or 3-2, people would not understand that what you mean is three hundred and two. The first time we are ever exposed to this is the number ten (10). Since 9 is the highest single digit, to express one more then 9 we are taught to carry 1 over to the next left digit, the tens

position in this case. The same concept is true in all other number system bases. Here is an example.

Binary	Decimal	Hexadecimal
0	0	0
1	1	1
10	2	2
11	3	3
100	4	4
101	5	5
110	6	6
111	7	7
1000	8	8
1001	9	9
1010	10	A
1011	11	B
1100	12	C
1101	13	D
1110	14	E
1111	15	F
10000	16	10

The digits 10 represent different ideas depending which base they are referenced to. 10 (base 2) is equal to two in decimal and 10 (base 16) is equal to sixteen in decimal. 10 (base 10) is the same as counting all your toes (unless you are malformed). But even this is not the easiest form of reading machine language.

Assembly language is a representation of machine language in a form easily understood and recognizable by the progammer, but must be translated to machine language by a program called an ASSEMBLER. Assembly language uses a system of symbols called Mnemonics. Mnemonics are names used to identify instructions. The names are fashioned from the english words that describe the function of the instruction. LDA is one such mnemonic, it stands for LoaD Accumulator register with the number that follows this instruction. STA is another, it stands for STore the contents of the Accumulator in the address that follows. A line of assembly code may have the following elements :

LABEL - a reference point in the program (optional), OPCODE - is a one byte machine code instruction which in assembly language is represented by the mnemonic and the syntax of the addressing mode, OPERAND - the address or argument used by the opcode, COMMENT - an optional comment for the programmers own use (ie description of what is happening in the program at that line).
Labels are a design of the assembler program and not all assemblers offer this feature nor is it needed in simple programs. The opcode, or instruction tells the computer's cpu what it is suppose to do and automatically advises the cpu how many of the following bites are used as the operand. Operand tells the cpu what the number is to be used by the opcode or where to get the number to use (ie: a location [an address] in memory where the number is stored). Comment is like its name suggests, a user's note, like using REM in basic.

When using assembly language, the program written by the programmer is referred to as Source Code and the assembled code (also called machine code) is referred to as the Object Code. As a suffix on a filename, this can help determine how to use the file (xxxx.src for SouRCe code file or xxxxx.obj for OBJect code file).

In the 6510 microprocessor, there are 56 different instructions, and 13 addressing modes that the instructions can use (but not all instructions will use them). In total they represent the 151 machine language codes. Some instructions are close copies of other instructions. The LoaD Accumulator (LDA) instruction, which loads a register in the CPU called the Accumulator, is similar to two other instructions LDX and LDY. LDX LoaDs the "X" register while the LDY LoaDs the "Y" register, the same way LDA loads the Accumulator. But LDA has 8 different addressing modes while LDX and LDY have 5 different address modes each, this means 18 machine language codes altogether. There are 3 registers commonly used by programmers in the CPU, (Accumulator, X, Y) but there are 6 registers altogether. The other 3 registers are the Program Counter (PC), Status Register (SR) and the Stack Pointer (SP).

Addressing modes are part of the instruction which indicate where to get information or what that information is, in conjunction to the operand. Assembly Language allows for 13 types of addressing modes, from an Immediate Addressing mode to an Indexed Indirect Addressing mode. These modes indicate that the instruction is a stand alone code or that the operand is the value for working with, or one of several different ways to look up where to find the value to work with. The following are the addressing modes:

Implied Addressing - does not use an operand,and the machine code is only one byte. The instruction already knows where and how to do its task. (e.g... INX - Increment the X register)
Syntax- INX

Accumulator Addressing - some instructions can be performed on the accumulator and do not require an operand. They too are only one byte codes. The assembly code ASL xxxx is used to shift each bit, of a address, one position to the left and the 7th bit into the carry bit of the status register, but ASL A does the same thing to the accumulator but does not require bits for an address. (some assemblers do not require "A" after the mnemonic ASL)
Syntax- ASL A or ASL

Immediate Addressing - the operand that follows the mnemonic is literal. LDA #24 says to LoaD the Accumulator with the value 24.
Syntax- LDA #24 (for decimal numbers)
LDA #$24 (for hexadecimal numbers)

Zero-Page Addressing - uses a one byte operand to signify addressing to the zero page (memory location where the high byte is 00)
Syntax- LDA $4F

Absolute Addressing - the operand is a two byte memory location where the instruction is to be performed at or from.
Syntax- STA $1FFF

Relative Addressing - conditional branching-a method for instructing a program to jump to a given routine under certain specific conditions. There are 8 such branching instructions all beginning with "B" (BCC, BCS, BEO, BMI, BNE, BPL, BVC, BVS). The opcode and operand are a total 3 bytes.
Syntax- BEO $2000 or BEO LABEL

Absolute Indexed,X Addressing - uses an offset added to the operand to access a position in a look up table. The offset is found in the "X" register. LDA $xxxx,X says to take the value previously stored in the "X" register (we will say the value is N) and add it to the address value $xxxx (we will use $C000) and LoaD the accumulator with the value found at memory location $xxxx+N. So if N=$1B then the CPU's accumulator would be loaded with the contains of memory location $C01B.
Syntax- LDA $C000,X

Absolute Indexed,Y Addressing - is the same as Absolute Indexed,X but uses the "Y" register instead.
Syntax- STA $123E,Y

Zero-Page,X Addressing - is the same as Absolute Indexed,X addressing but only uses a single byte operand for Zero Page access
Syntax- STA $0A,X

Zero-Page,Y Addressing - is the same as Zero-Page,X but is available for only two instructions, they are LDX and STX
Syntax- STX $FB,Y

Indexed Indirect Addressing - takes the "X" register as an offset and adds it to the operand address (not the contents)in the Zero Page, this sum is to point to a new location within the Zero Page and not higher. This new address and the one above it are the location where the opcode will finally do its thing.
Syntax- LDA ($FD,X)

Here is an example to help understand it:

```
Previously Stored  $A0=0F
                   $B0=CD
                   $B1=12
                 $12CD=A9
               X register=10
the instruction is      LDA ($A0,X)

Step 1--- add offset X to address of operand;
      $10+$A0=$B0   must be $FF or less
Step 2--- use the new address to get the final address;
      $B0=low byte; $B1=high byte;
      final address $12CD
Step 3--- execute instruction;
      load accumulator with the value $A9
```

Indirect Indexed Address - uses the "Y" register as an offset and the operand in the brackets must point to a Zero Page. During execution of this instruction the CPU goes to the operand address, gets the contents which the CPU now uses as a low byte address and gets the contents of the operand+1 and uses that as a high byte address. Then goes to the new address (this is usually the beginning of a look-up table) plus the offset as the final address where the CPU finishes its execution of the instruction. In this addressing only one value has to be Zero Page compatible where as in the Indexed Indirect not only do two values have to be Zero Page compatible but so does the sum of those two values.
Syntax- LDA ($BB),Y

Here is an example:

```
Previously stored; Y register=FF
                   $B0=00
                   $B1=C0
                  $C000= first element of a table
                   $C0FF=04
The Instruction ---  LDA ($B0),Y

Step 1---  CPU takes the contents of the operand address (low byte) and
       the operand+1 (high byte) to make a new address;
       $B0=00; $B1=C0; =$C000
Step 2---  CPU adds the new address to the offset and
       gets a final address;
       $C000+FF=$C0FF =final address
Step 3---  CPU executes instruction on this address;
       accumulator is now loaded with the value 04
```

Unindexed Indirect Addressing - is used by only one instruction, the JMP, the jump instruction. This instruction uses a 4 byte address in brackets where it goes and gets the contents of that address (low byte) and the contents of the address above it (high byte) to make a final jump point.
Syntax- JMP ($C000)

Here is an example;

```
Previously stored  $C000=FF
                   $C001=DF
The Instruction    JMP ($C000)

Step 1--- CPU goes to the address of the operand and
       gets the low byte of the final address;
       Lo-Byte = $FF
Step 2--- CPU goes to the operand+1 address to get
       the high byte of the final address;
       Hi-Byte = $DF
Step 3--- with the new address the CPU jumps to the
       new address and continues the program from there;
       JMP ($C000)  is executed as JMP $DFFF
```

Next Newsletter we will discuss the instruction sets, ways of entering code and start programming. In the mean time other sources of information that I used are as follows:

Commodore 64 Programmer's Reference Guide by Commodore Business Machines,Inc
Machine Language for the Commodore 64,128 and other Commodore Computers: by Jim Butterfield (a TPUG FOUNDING MEMBER)
Commodore 64/128 Assembly Language Programming: by Mark Andrews
Commodore 128 Reference Guide for Programmers: by David L. Heiserman

And there are many other good books out there.

Tom Luff

A Note From Ron Anderson - andd@idirect.ca

Ed. note ... though I' m certain that Ron Anderson expected me to edit this note down for publication, I found that Ron's comments read rather well in their entirety.

Monday, August 30, 1999

Hi John - Further to our telephone conversation this morning I would be pleased if you would include a reference in the next newsletter to my having a booth at the fall Swap Meet. I have been in the process of winding down for a year or more and this could be an opportunity to bring it to an end as far as my direct involvement for Commodore computer users. I still get a call a week, sometimes from existing customers and occasionally from someone who has called Toronto 411 information asking for Commodore - they are given my business number in Newmarket. This is what happens when a company dies (Commodore) but the media continued to ignore CBM thereby leaving many people not knowing that Commodore has gone to heaven.

As far as the sale is concerned I will have many CMD products available, including many software titles and Swift Link Cartridges. I will have a good assortment of other software as well, along with C64's and 1541's in an 'as is' condition and lots of power supplies. Prices will be deep discounted by 75% or more. If the TPUG executive is interested I will consider walking away from whatever is unsold, in other words donating the 'remains' to the User Group.

If I can do anything else to help increase the turnout for this Swap Meet please let me know. Thank you for this opportunity, John. I look forward to seeing you, Ernie, Tom and others this fall.

Best wishes.
Ron Anderson

Commodore World
THE NEWS MAGAZINE FOR COMMODORE 64 & 128 USERS

Announcement

Commodore World magazine has a new look and it is with pleasure and excitement that we announce these new changes which we feel will better serve you.

As most of you are aware, the publisher of Commodore World magazine is Creative Micro Designs, Inc., the developer and manufacturer of many of the finest hardware accessories ever developed for the Commodore 64/128. Although publishing is not CMD's area of expertise, Commodore World was undertaken as a result of our desire to provide a Commodore specific 64/128 magazine after the demise of other such publications. Despite our best intentions, we have not been able to deliver the type of service that we feel you deserve.

It is therefore our pleasure to announce that we have found a solution to address these shortcomings after many months of searching.

Effective with issue 26, Commodore World will be produced by CSW Verlag, publishers of GO64! and will become known as GO64!/Commodore World. The magazine will be produced in the English language and all outstanding issues due to Commodore World magazine subscribers will be provided in this new format. CSW Verlag has shown us that they have the ability and expertise to provide you with a quality magazine dedicated to the Commodore 64/128.

With their proven track record and staff dedicated to the full time publishing of a Commodore specific magazine, Commodore World subscribers will benefit greatly. The magazine will now be received with greater frequency (once a month) and will have larger pages, a glossy cover, and will also be provided with a cover disk.

While all of us here at CMD will miss the opportunity to bring our personal touch to Commodore World magazine, we are convinced that this is in the best interests of our loyal readers. A high quality publication with better frequency and a broader base for reporting Commodore news and interests combined with our resolve to continue to provide reliable Commodore hardware and software products should benefit all Commodore users. We wish to thank you for your loyal following over the past five years, and again assure you that the changes that have taken place have been done with our readers best interests in mind.

From all of us at CMD, we sincerely believe that you will find the GO64!/Commodore World magazine to your liking and trust that you will continue to support these efforts as you have in the past. CMD wishes to assure each and every one of you that we are not disappearing from the scene and that we will be continuing our efforts to provide quality hardware, software and repair services well into the new millennium.

Truly yours,
All of us at Creative Micro Designs, Inc.

Commodore World Magazine is a publication covering the Commodore 64 and 128. Produced by Creative Micro Designs, Commodore World provides news, feature articles and regular columns geared to Commodore users of all levels.

An announcement from Amiga Inc.

Amiga's ex-President Jim Collas has been talking for the past half year about the new Amiga next generation computer they would ship around the end of this year. They even posted basic hardware specs and the software direction on the web.

Then a month ago, Collas departed abruptly, and the web postings vanished. After weeks of speculation, this posting appeared on http://amiga.com/diary/executive-e.html

EXECUTIVE UPDATE
September 14, 1999

TO: THE AMIGA COMMUNITY

Thanks for your notes and comments about our plans for Amiga. In the past couple weeks, we've received hundreds -- if not thousands -- of emails and messages from loyal Amigans worldwide, many of you expressing a concern about Amiga's future based on recent reports in the media and in numerous chat rooms. I am so impressed with the spirit and passion of this great community and I wanted to make sure I told you that.

The fact is... to borrow from Mark Twain... the reports of Amiga's death have been greatly exaggerated. To that end, I wanted to provide a little more detail about our plans for Amiga... both as a product and as a company, and hopefully clear up any confusion that exists.

First, I hope you'd agree that Amiga was never about a box. It was never about an operating system either. Sure those things were part of what made the original Amiga great, but at its heart, Amiga was simply about a better way. Amiga was ahead of its time. Amiga promised to change the world. It ran against conventional wisdom and was better than anything out there at the time. In fact, we could all argue that it's still better than anything out there.

The ideals and spirit of that original Amiga are alive and well today. But to limit Amiga to just one box, one product, one OS, is to keep Amiga from ever seeing its full potential. Think about it.... The original Amiga never did really reach its full potential despite its technical advantages and its cost and ease of use advantages. Why? Because it never became ubiquitous. The company's early vision was probably too limited for the vast potential that Amiga offered.

The original Amiga was all about multi-media, so why not have Amiga running on every type of device imaginable, on top of every other OS out there? That's the beauty of Amiga and where we are as an industry. We're in the midst of a revolution unlike anything the world has seen, and Amiga has never been better positioned to change that world and make a bigger impact. Limiting Amiga to just one box and one OS at this point would be like offering the world a better horse and carriage at the dawn of the automotive age. Amiga and its revolutionary spirit deserve better than that. Amiga is going to produce software technology that will enable Internet services on an emerging category of products commonly referred to as "Information Appliances". It is an exciting new mega trend in the industry and we are excited about being at the forefront of this next great wave in computing history. In addition, we have decided to work with business partners who will deliver our software technology on their systems, rather than enter the hardware business directly.

So long live Amiga, but if you think that Amiga was just a box, you've missed the point. Amiga is about a better way. In the coming weeks and months, we promise to keep you posted on progress against our plans for Amiga, and we thank you for your continued support. Let's work together to enable Amiga to revolutionize the industry and change the world!

Long live Amiga,
Thomas J. Schmidt
President & C.E.O.

Comment:

Many Amiga users are in shock or at least very bewildered by Amiga's recent decision to use Linux as the basis of the new Amiga operating system. In an open letter to the Amiga community, Jim Collas, Amiga's new president said that "Linux has been picking up substantial momentum over the past year as a viable, open OS alternative in the marketplace."

The decision was especially surprising because of Amiga's former decision to use a kernel based on the cutting-edge QNX (tm) real-time operating system. QNX is used in critical applications such as nuclear power plants and is a robust, stable, industrial-grade product. Amiga's current operrating system has been widely praised and adopted by such organizations as NASA, specifically for its excellent real-time performance. The idea seemed to be that the new Amiga would continue this tradition with the best in real-time operating systems -- a clear alternative to mainstream operating systems. Since late 1998, QNX has had people working on the Amiga operating system, and has spent considerable time and money on Amiga-related publicity. Dan Dodge, the Chief Technological Officer for QNX, plans to deliver an Amiga OS in any case. "I did make a promise to deliver an operating system and I intend on keeping that promise.... Both QNX and Amiga have promised to deliver technology into your hands in the very near future. I ask only that your assesment of QNX be based on what we do and what we deliver."

AMIGA Executive Update

September 17, 1999

Open Letter to the Amiga Community

There has been a great deal of confusion and frustration expressed in the news groups and via email over the past several weeks. I apologize that we have not been more direct in our communications, and I want to set the record straight.

First, per my previous messages, I continue to be impressed with the passion and commitment of this community. You have 'hung in there' through a number of upheavals over the past years, and through several false starts on next-generation Amiga platforms. You deserve better. I have received many, many emails over the past two weeks, expressing your opinions and frustrations. Let me try and summarize what I have heard.

Many of you acknowledge the fact that we are focusing on software for the coming generation of 'Internet appliances'. We are very excited about the new Amiga Operating Environment, the work we are doing with Linux (and other operating systems that support Java), and the huge growth curve in Internet appliances that we are going to ride. You have gracefully wished us well in this endeavor, for that, I thank you. As you know, we announced in July that we were pursuing the development of a 'multimedia convergence computer' that would serve as the next-generation Amiga desktop computer. After the change in management at Amiga, we reviewed all our product plans. To be honest, the ability for us to deliver the MCC was unrealistic. Furthermore, I have fundamentally decided that it would be better to partner with a wide variety of hardware partners, rather than compete against them with a product of our own.

From your perspective, one big problem exists. Sounds great, but what does this new direction have to do with the original Amiga computer? Quite honestly, nothing! We realize that this does not satisfy the desire of the Amiga community for a next-generation Amiga. In response, I remain committed to seek out partners who are interested in developing a next-generation Amiga computer and operating system. We have been following the discussions amongst the newly formed 'Phoenix Platform Consortium' and talking to companies interested in supplying the next-generation Amiga. We are open to the possibility of licensing the MCC product specification and design that is now on the shelf to companies that are interested in further developing the Amiga desktop computer product line. We believe that this could be an attractive business opportunity for another company.

In summary, we are continuing to focus our resources on setting software standards for the coming generation of Internet appliances. We are not planning to offer hardware devices, but will work with hardware manufacturers who want to license our technology. As far as offering next-generation Amiga systems, we are open to talking to companies who want to offer such a product. For those of you who are excited about the Amiga Operating Environment running on a wide variety of future Internet appliances, we invite you to track our progress and activities over the coming months. The Internet appliance software model that we are putting together will open up an exciting new era of software development that we think will be very interesting to the type of innovative thinkers who were drawn to the Amiga computer in years past.

Best Regards,
Thomas J. Schmidt
President and CEO
Amiga, Inc.

Amiga: Back For Which Future?

In the last year, a lot of controversy has arisen over the future course of the Amiga.

First a new president (Jim Collas) arrived, posting monthly letters on the Web. He admitted that the company had neglected the classic Amiga and promised an AmigaOS upgrade for it and that future Amigas would be able to run classic Amiga programs (presumably via emulation, like the PowerMac runs classic 68000 Mac programs).

He also promised and delivered a document containing most of the hardware specifications for the next generation Amiga (the Multimedia Convergence Computer or MCC), and for the operating system and Amiga Operating Environment that would run on it, shipping in late 1999. The new system would be available as a somewhat traditional computer, and as a circuit board for embedding in "Internet appliances" (eg, a TV set-top web browser). The new Amiga Operating Environment would mostly be Java code running on top of an underlying operating system (Linux, not the previously planned QNX - a controversial but likely correct switch).

AmigaOS 3.5 has been demoed, keeping one of the promises.

Then Collas resigned, and new president Thomas Schmidt announced they would not be building the MCC, that "the Amiga was never about a box" and "never about an operating system either", that it "was all about multimedia."

The MCC's apparent cancellation was devastating news for most of the faithful, despite Schmidt's promise to try to get other companies to build the MCC. Flames have been flying.

I was among the severely disappointed. After more thought, I suspect Schmidt might be right.

Why?

I liked a lot about the classic Amiga. The 68000 CPU was clearly better than the 8088 or even the 286. Addons just plugged into the side. The multi-tasking operating system allowed command lines like MS-DOS but had a GUI like the Mac. My 4 year old could boot it and run his programs. It had most of what Windows 95 did, a decade earlier. The major omision was bloat - it could run from a floppy drive or two in half a meg of RAM. It was easy, flexible and efficient. The standard BASIC let everone write GUI programs. It had colour, stereo sound, speech, great graphics, animation and desktop video. A most impressive package!

Some things hurt the Amiga's sales. First was the price, which was lower than the big brand name competitors but much higher than the clones. It had a nonstandard system bus, so only a few addons were available and they all cost hundreds of dollars more than PC equivalents. Hard drives have always been harder to get. The 1000 couldn't even use standard printer cables. You couldn't save a few bucks by using a monochrome monitor because AmigaDOS needed at least 4 colours. Price matters, especially to home users.

Connectivity matters too, especially to business users. It was years before an Amiga could be plugged into an office network, and it stayed harder and more expensive. Even transfering files via floppies was originally impossible, since the format was totally incompatible. Those who got files moved found most of them were also incomptible formats. The Amiga was crippled not just for business uses, but also for anyone wanting to share information with their computer at work.

Software piracy hurt too. Not piracy on Amigas - piracy on PCs. An honest computer user pays two to three times as much for software as for hardware. Buying a PC clone didn't just mean you only paid much less than you would have for an Amiga. If you stole a word processor, spreadsheet, etc from work, you got fancier software without paying a cent. And you could bring your work home, or take a disk in and sneak personal letters through on the office laser printer. I think home users' piracy has helped Microsoft and Intel more than either would want to admit. (That doesn't make it right, in fact, that makes it more evil!)

At the start, the Amiga technology was a winner, but with relatively low volumes Commodore couldn't win the technology race and especially the clock speed race. That hurt sales volumes - a vicious spiral.

But in many ways the Amiga was better. The marvel wasn't just that it was better. It was enough better that many would pay 3 or 4 times as much to have one!

Amiga Everywhere?

Now imagine what could have happened if the Amiga had been able to use a PC's memory boards, hard drives, addons and any PC peripherals, had been able to drop into a network and just work, had been able to interchange disks and files, and maybe even to run at least some of the other guys' programs, had been as cheap as a clone, had been available as a laptop, ran at 500+ MHz . . . and had still been better in the ways it was, or at least most of them.

As Schmidt says, "Why not have Amiga running on every type of device imaginable, on top of every operating system out there?"

I've got 3 Amigas, but my PC is faster. Why not buy the 'Amiga Operating Environment for Linux on Pentiums', and run that? I might even think about getting the 'on top of Windows but with a better GUI' version. At work where I use AIX (IBM's Unix), and occasionally a ThinkPad laptop, I could run the same Amiga Environment. With Amiga software, my neighbours with their Dreamcasters or Nintendos could use them to surf the net, or even to run many Amiga games, create videos with Amiga tools, and so on. If someone like Phase5 or Phoenix or Iwin builds an MCC, the Amiga Environment should scream on it. And if Schmidt really means 'every', I could even run the new Amiga stuff on my old Amigas.

What's wrong with all that? Nowadays does the particular hardware still matter more than the software, more than the GUI, more than the operating environment? If Windows was rewritten to run on a PowerMac CPU, and MacOS to run on a Pentium, how many users would really care what was inside? So why limit ourselves to what one company can afford to build, and why deny the Amiga advantages to those with something else?

Ian McIntosh
TPUG Membership Secretary and WebMaster

Psst ... Watches!

Have we got a deal for you! TPUG has located a once-in-a-lifetime supply of genuine COMMODORE digital watches, vintage circa 1980. These watches seem to fall into two categories:
1 - Silver rectangular face, LCD 5-function with black leather strap and
2 - Oval face, LCD multi function (7?) with built-in alarm and metal bracelet/strap. These watches come in two colour variants, silver or gold.

We believe that (for TPUG members - valid as of January 1998) we can obtain working models of these 'collector's items' for following costs (Canadian $):
Item 1, $35 and Item 2, $40 - please specify desired colour for Item 2 when ordering.
For you skeptical nonbelievers, these watches will be on display at the up-coming Fall Swap Meet - October 23.

Loadstar Update

I was perusing through my backlog of Loadstar disks the other day and picked out a few tidbits of information about the disk magazine that I thought may be of interest to our members.

For the benefit of those members who are not already subscribers, Loadstar is a disk magazine for the Commodore 64 as well as a quarterly disk for the 128. As well for another small extra subscription price you can also receive the Loadstar Newsletter. Loadstar has been produced for the last 15 years by Fender Tucker, with the help of others over the years such as his wife Judi and Jeff Jones, as well as the Loadstar subscribers who send in their programs for inclusion into the magazine.

Loadstar was a creation by another disk magazine company called Softdisk. Alas Softdisk who dumped Loadstar a couple of years ago because of diminishing subscription rates have themselves succumbed to the subscription pressures, and has passed into oblivion themselves a couple of months ago from the disk magazine business. Softdisk still exists as an Internet Service provider for the Shreveport La. area. This has created the necessity for Fender and his wife to move the publishing of Loadstar to a new address at 443 Gladstone Blvd. Shreveport La. 71104. As well the 1-800 number has been replaced with 1-318-868-8727, for ordering. (Fender promises not to keep you on the line to long being the call is now paid by you.

To continue with changes, Loadstar has had to deal with Jeff Jones moving on to new endeavours, albeit he has not completely gone. Jeff is still handling the Loadstar Newsletter as well as the Loadstar website, according to issue #174. This experience has lead to a whole new kettle of fish for Fender. He has now bought a PC for a few hundred bucks and has vowed that he will be showing up more online. I noted from the latest issue that Fender has also found other benefits from the PC although he strongly denies that it will affect his usage of his 128.

Loadstar has a short history of itself on Issue #180 which covers the last 15 years of its existence; Fender has quaranteed that Loadstar for the 64 will continue production till December of the year 2000, but he is not so sure of the lifespan of the 128 version. In the 15 years so far, Loadstar has been instrumental in providing quality programs and utilities to be used with the 64. Every issue includes editorials, utilities, brainteaser games and some type of Geos program. Music and graphics are also included.

One of, what could be consider the best programs ever put into Loadstar, came with issue #182. The graphics program Fun Graphics Machine with the updated Version 8 was sent with the Loadstar disk. If you are not aware, Fun Graphics Machine is considered by some to be the best graphics program ever produced for the 64. Our own president uses an older version almost exclusively. Tom does admit though that FGM has a somewhat larger learning curve. Luckily the Version 8 that came with Loadstar, has the docs included. For a $10 back issue fee the FGM program can be had. Ron Hackley who is the programmer still has some of the books for the documentation available, though its for the earlier version only.

Loadstar still carries a subscription list of just under 1000 subscribers. I would like to ask all TPUG members who are still enjoying their 8bit 64's to give some consideration to subscribing to Loadstar. Our continued support would ensure that Fender and his wife are able to continue publishing past the December 2000 date. I believe that you can still subscribe on a month to month basis, as that is how I am doing it. This way you can avoid that initial larger outlay of your hard earned dollars. As Fender has said, he is willing to allow an issue to be used to pass around for a visual on the disk mag, but as well we at the club can hold a meeting to demo Loadstar.

I am hopeful that the membership gives Loadstar their consideration for subscribing so we all may enjoy the continued fine programs for our Commodores.

Tom Haslehurst
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Like all clubs or groups we are always trying to increase the membership by getting new members. We have a very unique problem that only a few groups have. Most of the membership are a result of having their computers from many years ago. There are few new members to recruit because young people today first experience a computer using a MS-DOS machine and simply do not know or care to know about the older stuff. So to you reading this, teach a young person something about the past, a bit of history, show them what a real computer can still do and tell them about us. After all not all of the dinosaurs are extinct.

Despite the negative tone in my report, this is the best group to be a part of. TPUG was founded in 1978 and I for one am looking forward to the Year 2003 when we will be celebrating 25 years of TPUG. I will be here, I hope you too will be here.

Tom Luff

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